

---

## Christchurch West Melton Water Management Zone Committee AGENDA

---

### Notice of Meeting:

A meeting of the Christchurch West Melton Water Management Zone Committee will be held on:

Date: Thursday 30 July 2020  
Time: 6pm  
Venue: Te Hāpua: Halswell Centre (Piharau Room),  
341 Halswell Road, Christchurch

---

### Membership

Chairperson	Arapata Reuben - Tūāhuriri Rūnanga
Members	Kevin Brown - Community Representative
	Helen Caley - Community Representative
	Annabelle Hasselman - Community Representative
	Gareth Oddy - Community Representative
	Carly Sluys - Community Representative
	Abbie Wilson - Community Representative
	Councillor Sophie McInnes - Selwyn District Council
	James Daniels - Christchurch City Council
	Councillor Phil Clearwater - Councillor Environment Canterbury
	Oscar Bloom - ECan Youth Rōpū
	Les Wanhalla - Te Taumutu Rūnanga

---

If you require access to the Environment Canterbury building after 6pm, please phone Tami Woods at the number below

24 July 2020

Zone Facilitator  
Tami Woods  
Tel: 027 529 7761  
Environment Canterbury

Principal Advisor  
Diane Shelander  
Senior Policy Analyst  
Tel: 941 8304  
Christchurch City Council

Committee Advisor  
Liz Ryley  
Tel: 941 8153  
Christchurch City Council

To view copies of Agendas and Minutes, visit:

<https://www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/>

<https://www.ecan.govt.nz/get-involved/council-and-committee-meetings/>

## Christchurch West Melton Water Management Zone Committee

### Members' Register of Interests – at 24 June 2020

Name/Organisation	Interests
Helen Caley, Aurecon	<ul style="list-style-type: none"> <li>Works in environmental consulting, in planning and contaminated land, occasionally on consents for council stormwater projects</li> <li>Aurecon contracted by Ravensdown for stormwater system upgrades at their Hornby site, to improve the quality of the discharge</li> </ul>
Annabelle Hasselman	<ul style="list-style-type: none"> <li>Chair Ōpāwaho Heathcote River Network</li> <li>Shareholder Fulton Ross Team Architects</li> </ul>
Gareth Oddy	<ul style="list-style-type: none"> <li>Environmental Scientist working predominately in the contaminated land and groundwater sectors for a private company ENGEO Limited</li> <li>Shareholder of ENGEO Limited (Geotechnical and environmental management consultancy)</li> <li>ENGEO have previously provided occasional contaminated land assessment services and asbestos management services to CCC and ECan</li> <li>Paid member of the Australasian Land and Groundwater Association, Water New Zealand and Wasteminz</li> </ul>
Kevin Brown	<ul style="list-style-type: none"> <li>Partner, GEOKEM consultancy in geothermal energy and water quality</li> <li>Adjunct Professor, University of Canterbury</li> <li>Private well owner in high nitrate groundwater area</li> <li>Lifestyle block owner</li> </ul>
Arapata Reuben	<ul style="list-style-type: none"> <li>Trustee – Tuahiwi Marae</li> <li>Trustee – Tuhono Trust</li> <li>Trustee – Mana Waitaha Charitable Trust</li> <li>Member – National Kiwi Recovery Group</li> </ul>
Les Wanhalla	<ul style="list-style-type: none"> <li>Returning good health and mauri O Te Waihora/Lake Ellesmere</li> <li>Kaitiakitanga, Whakapapa</li> <li>Rugby league, life member, honorary south Kiwi</li> <li>Trustee of the Central Plains Water Trust</li> <li>Taumutu Trustee</li> </ul>
Abbie Wilson	<ul style="list-style-type: none"> <li>Work at AECOM</li> <li>Often work on Council based Three Waters jobs</li> </ul>
Councillor Sophie McInnes	<ul style="list-style-type: none"> <li>Farmlands shareholder</li> <li>Partner in DaDs Bees (beekeeping business) with spouse</li> </ul>
Oscar Bloom	<ul style="list-style-type: none"> <li>Chairperson of the ECan Youth Rōpū</li> <li>Student at St Andrew's College</li> </ul>

## TABLE OF CONTENTS

### Karakia/Timatanga

1. Apologies.....	4
2. Declarations of Interest .....	4
3. Confirmation of Previous Minutes.....	4
4. Matters Arising from the Minutes.....	4
5. Actions	
6. Deputations by Appointment .....	4
7. Identification of Urgent Items .....	4
8. Identification of General Public Contribution.....	4

### STAFF REPORTS

9. Correspondence - Aurecon .....	13
10. Election of Chair, Deputy Chair and Regional Committee Representative .....	19
11. Stormwater Management Plans .....	23
12. Update on the Review and Proposed Changes to the Zone Committees' Terms of Reference .....	27
13. Community Engagement Workshop and Next Steps .....	53
14. Cashmere Stream and Port Hills Working Group Update .....	61
15. Biodiversity Workshop and Next Steps.....	77
16. Facilitator's Update - 30 July 2020 .....	81

### Karakia Whakamutunga

The meeting will be opened with a Karakia/Timatanga and closed with a Karakia/Whakamutunga

**1. Apologies**

At the close of the agenda no apologies had been received.

**2. Declarations of Interest**

Members are reminded of the need to be vigilant and to stand aside from decision making when a conflict arises between their role as an elected representative and any private or other external interest they might have.

**3. Confirmation of Previous Minutes**

That the minutes of the Christchurch West Melton Water Management Zone Committee meeting held on [Thursday, 27 February 2020](#) be confirmed (refer page 5).

**4. Matters Arising from the Minutes**

**5. Deputations by Appointment**

There were no deputations by appointment at the time the agenda was prepared.

**6. Identification of Urgent Items**

**7. Identification of General Public Contributions**





## Christchurch West Melton Water Management Zone Committee OPEN MINUTES

Date: Thursday 27 February 2020  
Time: 6pm  
Venue: Te Hapua: Hao Lounge, 341 Halswell Road, Halswell

Present  
Chairperson Arapata Reuben - Tūāhuriri Rūnanga  
Members Kevin Brown - Community Representative  
Helen Caley - Community Representative  
Annabelle Hasselman - Community Representative  
Gareth Oddy - Community Representative  
Carly Sluys - Community Representative  
Abbie Wilson - Community Representative  
Councillor Sophie McInnes - Selwyn District Council  
Councillor Phil Clearwater - Councillor Environment Canterbury  
Les Wanhalla - Te Taumutu Rūnanga

27 February 2020

Zone Facilitator  
Tami Woods  
Tel: 027 529 7761  
Environment Canterbury

Principal Advisor  
Diane Shelander  
Senior Policy Analyst  
Tel: 941 8304  
Christchurch City Council

Committee Advisor  
Liz Ryley  
Tel: 941 8153  
Christchurch City Council

In Attendance: Annie Timms and Bianca Sullivan (Christchurch Airport International Ltd); Oscar Bloom and Charlotte Doogue (ECan Youth Rōpū); Lauren Hamilton, Kate Hunt and Harry Millar (ECan); John Benn (DOC)

[www.ccc.govt.nz](http://www.ccc.govt.nz)

To view copies of Agendas and Minutes, visit:  
[www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/](http://www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/)  
[www.ecan.govt.nz/news-and-notice/minutes/Pages/Default.aspx](http://www.ecan.govt.nz/news-and-notice/minutes/Pages/Default.aspx)

The agenda was dealt with in the following order.

Arapata Reuben opened the meeting with a Karakia/Timatanga.

## 1. Apologies

Committee Resolved CWZC/2020/00001

That the apologies received from Councillor James Daniels and Kylie Jane Phillips, Te Hapū o Ngāti Wheke/Rapaki, be accepted.

Arapata Reuben/Annabelle Hasselman

Carried

## 2. Declarations of Interest

Les Wanhalla declared he was a Trustee of the Central Plains Water Trust, and Taumutu Trustee.

## 3. Confirmation of Previous Minutes

Committee Resolved CWZC/2020/00002

That the minutes of the Christchurch West Melton Water Management Zone Committee meeting held on Thursday, 28 November 2019 be confirmed.

Arapata Reuben/Kevin Brown

Carried

## 4. Matters Arising from the Minutes

Tami Woods reported on Environment Canterbury's announcement that it will be moving to 39 new low emission and 25 electric buses, including a commitment to copper free brake pads.

## 5. Deputations by Appointment

There were no deputations by appointment.

## 6. Identification of Urgent Items

Nil.

## 7. Identification of General Public Contributions

Nil.

## 8. Management of Conflicts of Interest

Committee Comment

1. Kevin Brown provided a power point presentation to outline the recommended approach for Zone Committees managing conflicts of interest following the revocation of exemptions to the Local Authorities (Members' Interests) Act 1968. The presentation was provided to Committee members, for their information.

Committee Resolved CWZC/2020/00003

That the Christchurch West Melton Water Management Zone Committee:

1. Receives the information on managing conflicts of interest.

Arapata Reuben/Helen Caley

Carried

T

## 10. Christchurch International Airport Limited, Simplification of Stormwater Discharge Resource Consents Framework

### Committee Comment

1. Bianca Sullivan and Annie Timms of the Christchurch International Airport Limited (CIAL) presented information to the Committee on its intention to simplify the discharge consent framework through amalgamation of its two landside global stormwater discharge consents. The presentation was provided to Committee members, for their information.
2. Bianca and Annie responded to questions from members about how the stormwater discharge systems work in the different catchment categories for heavy metals and other contaminants.
3. Discussion was held about the discharges from roofs that are covered by a different consent. It was noted that a specific regime of stormwater monitoring was undertaken six monthly by Tonkin + Taylor. Members suggested information on the Storminator, a tool developed by University of Canterbury engineering academics to remove more than 80% of metals directly from roofs by treating the stormwater, should be provided to tenants to consider during upgrades and redevelopment.
4. CIAL provides an Annual Report to ECan.

### Committee Decided CWZC/2020/00004

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the information on Christchurch International Airport Limited's intention to merge its two existing global stormwater discharge consents (to ground) into one consent.

Arapata Reuben/Les Wanhalla

Carried

## 9. 2020 Committee Meetings, Working Groups and Election of Chair and Deputy Chair

### Committee Comment

1. Tami Woods advised that members would be required to elect the Chair, Deputy Chair and Regional Representative at the April 2020 meeting. In the meantime Tami asked members to have discussions outside the meeting about nominations.
2. The meeting dates, times and proposed locations were agreed to, with the exception of 26 March meeting that is a field trip and does not require a specific venue booking.

3. The Working Groups were considered by members, with the following decisions made about membership.
  - a. Urban Contamination, including global consent, copper brake pads, Addington and Haytons Streams  
Gareth Oddy, Annabelle Hasselman, Helen Caley
  - b. Cashmere Catchment, including Stream and Port Hills  
Councillor Phil Clearwater, Arapata Reuben, Annabelle Hasselman, Gareth Oddy  
Note: Les Wanhalla advised he would be withdrawing from this group
  - c. Biodiversity & Immediate Steps  
Les Wanhalla, Arapata Reuben, Annabelle Hasselman
  - d. Communication, including social media (via the Chair)  
Carly Sluys, Kevin Brown
  - e. Recreation – this group is no longer required
  - f. Groundwater & Drylands  
Kevin Brown, Carly Sluys, Councillor Sophie McInnes, Helen Caley

Committee Resolved CWZC/2020/00005

That the Christchurch West Melton Water Management Zone Committee agrees to:

1. Elect the Chair, Deputy Chair and Regional Representative at its next meeting.
2. Meet between 6 - 8pm on the following Thursdays:
  - a. 27 February – Te Hapua: Hao Lounge, 341 Halswell Road, Halswell
  - b. 26 March – Field trip Otukaikino (detail to be confirmed)
  - c. 30 April - Woolston Community Library/Hall, 689 Ferry Road, Woolston
  - d. 28 May - Te Hapua: Hao Lounge, 341 Halswell Road, Halswell
  - e. 25 June - Woolston Community Library/Hall, 689 Ferry Road, Woolston
  - f. 30 July - TBC
  - g. 27 August - TBC
  - h. 24 September - TBC
  - i. 29 October - TBC
  - j. 26 November - TBC
3. Confirm Working Groups and membership for 2020, as noted.

Arapata Reuben/Annabelle Hasselman

Carried

## 11. Cashmere Stream and Port Hills - Working Group Updates

### Committee Comment

1. Shelley Washington and Tami Woods reported an update from the Cashmere Stream and Port Hills Working Group meeting held on 27 January 2020, notes from the meeting were included in the report. Regular meetings of the group will be held at the South Library, and will include engagement with the Spreydon-Cashmere Community Board. Dates for these meetings are to be confirmed and consideration given to whether there is potential to increase membership. The focus is mainly on the Cashmere Catchment, but with the ability to be developed to the other Port Hills.
2. The map that was included in the report will be amended to show all the Port Hills.
3. The following points were noted from the discussion:
  - a. Conveying the issues to the public are noted last on the actions and priorities, but it is most important to convey the message about sediment to the public.
  - b. Kevin suggested to look at LIDAR and soil erosion mapping information to help with the rainy day inventory.
  - c. The Compliance priority recommendation to CCC needed to be more specific than what was included in the agenda papers to clarify what the Zone Committee was seeking.
  - d. Specific recommendations to CCC around erosion and sediment control management. Tami noted that there would be a further opportunity to do this after the Working Group had further explored the issues.

### Committee Resolved CWZC/2020/00006

That the Christchurch West Melton Water Management Zone Committee:

1. Notes the summary of the Cashmere Stream and Port Hills Working Group (Working Group) meeting on 27 January.
2. Accepts the proposed Terms of Reference for the Working Group.
3. Endorses the priorities actions for 2020, identified by the Working Group.
4. Recommends to the Christchurch City Council's March 2020 Three Waters and Environment Committee, the Working Group's proposals:
  - a. That the Christchurch City Council communicates to staff that the Cashmere Stream, and the Port Hills catchments that drain into the Cashmere Stream, be considered a priority catchment, when:
    - carrying out building inspections;
    - processing consents with Erosion and Sediment Control Plans; and
    - deciding on consents to be prioritised for monitoring.

- b. That the Christchurch City Council supports the range of issues and actions being further investigated by the Zone Committee Working Group around improving erosion control management and training.
- c. That the Three Waters and Environment Committee and Community Boards invite Councillors and Board members to join the Zone Committee Working Group on a 'rainy day inventory', where the Committee will ground truth sources of sediment and identify steps within a catchment to address site specific issues.
- d. That Christchurch City Council consider creating a short and engaging video for the community about land drainage work being undertaken in Cashmere Stream and down the Ōpāwaho Heathcote River to alleviate flooding, reduce sediment, increase biodiversity, mahinga kai and recreational activities.
- e. That the Council lead by example when carrying out Council earthworks activities and management of Council properties that have an effect on the Cashmere Stream, and the Port Hill catchments that drain into the Cashmere Stream.

Arapata Reuben/Sophie McInnes

Carried

## 12. Immediate Steps Cashmere Stream Enhancement Project - Stage 4 Committee Comment

1. Kate Hunt provided a power point presentation on the Cashmere Stream Enhancement Project Stage 4 that would, with support from Immediate Steps, support bank stabilisation works, fencing and restoration planting in the spring-fed headwaters of Cashmere Stream. The presentation was provided to the Committee members.
2. Councillor Clearwater suggested writing to the Christchurch City Council to note the pleasing work carried out on the Stream. This matter will be included in the quarterly update report to the Council.

### Committee Resolved CWZC/2020/00007

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the information in the Immediate Steps Biodiversity Projects report.
2. Support the below Immediate Steps project application with the remaining funds from 2019/2020 and partial funding from 2020/2021.

	2019/2020	2020/2021	Total
Cashmere Stream Enhancement – Stage 4	\$6,232.82	\$7,683.18	\$13,916
Arapata Reuben/Abbie Wilson			<u>Carried</u>

### 13. Ōtūkaikino Catchment - Urban Contaminants Working Group Update

#### Committee Comment

1. Tami Woods spoke to her report about the Ōtūkaikino Catchment and key management issues that had been discussed at the Urban Contaminants Working Group meeting. A map of the area in question was displayed.
2. Discussion was held about the issue of spring flow and opportunity to raise awareness about this.
3. A proposed field trip to the Ōtūkaikino Catchment in March will be an opportunity to highlight good news stories, and positive downstream effects.

#### Committee Resolved CWZC/2020/00008

That the Christchurch West Melton Water Management Zone Committee:

1. Notes the information provided to the Urban Contaminants Working Group meeting on 12 February about the Ōtūkaikino catchment.
2. Recommends to Environment Canterbury that they prioritise work with farmers in the catchment and the Clearwater Development to help reduce sediment loss and improve spring head protection.
3. Visits the Ōtūkaikino catchment as part of their March meeting, receives a summary of information provided to the Urban Contaminants Working Group, and further explore potential actions.
4. That the Committee further explores with Mike Patchett, Chair of the Water and Wildlife Habitat Trust, the idea of developing an Action Plan for the catchment.

Arapata Reuben/Helen Caley

Carried

### 14. Glyphosate use by Christchurch City Council

#### Committee Comment

1. Diane Shelander spoke to her report on the status of the Council's use of glyphosate and its limited use.
2. Some key information about the effects and impact of glyphosate in waterways, and information on management, was requested and will be provided in the next Facilitator's update.

#### Committee Resolved CWZC/2020/00009

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the information in the report.

Arapata Reuben/Kevin Brown

Carried



## 15. Facilitator's Update

### Committee Comment

1. Tami Woods spoke to her report, and added the following points:
  - a. If members are interested in attending the Grow Ō Tautahi 2020 event, please advise Tami. ECan's Communications team will be creating a banner for the Committee about the Zone Committee.
  - b. Healthy Ōpāwaho – 17 students from six schools formed a student leadership team and have invited Zone Committee members to a hikoi bus trip down the river. Healthy Ōpāwaho is a Community Collaborative Education Model partnership.
  - c. Volunteers were sought to present the quarterly updates to the Councils. Arapata Reuben is available to carry this out on 12 and 25 March and 22 April.
  - d. Youth Rōpū Voice on Zone Committees – Oscar Bloom introduced himself to the Committee and spoke about the Youth Rōpū proposal to have a voice on the Zone Committee.

This is a 12 month trial being carried out also with the Banks Peninsula Water Management Zone Committee.

A report on the proposal will be presented to the April meeting.

### Committee Resolved CWZC/2020/00010

That the Christchurch West Melton Water Management Zone Committee:

1. Note the upcoming events and updates.

Arapata Reuben/Helen Caley

Carried

Arapata Reuben closed the meeting with a Karakia/Whakamutunga.

Meeting concluded at 8.30pm.

CONFIRMED THIS 30TH DAY OF APRIL 2020

ARAPATA REUBEN  
CHAIRPERSON



## 9. Correspondence - Aurecon

Reference / Te Tohutoro: 20/908904

Presenter(s) / Te kaipāhō :

### 1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is for the Christchurch West Melton Water Management Zone Committee to receive correspondence from Aurecon about progress of the Ravensdown Hornby Stormwater Improvements Project.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the correspondence from Aurecon about the progress of the Ravensdown Hornby Stormwater Improvements Project.

### Attachments / Ngā Tāpirihanga

No.	Title	Page
A	Aurecon - Ravensdown Hornby Stormwater Improvements Projects	14

**Aurecon New Zealand Limited**  
Level 2, Iwikau Building  
93 Cambridge Terrace  
Christchurch 8013  
New Zealand

**T** +64 3 366 0821  
**F** +64 3 379 6955  
**E** christchurch@aurecongroup.com  
**W** aurecongroup.com



2020-07-22

Tami Woods  
Zone Facilitator  
Christchurch West Melton Zone Committee  
(via email) tami.woods@ecan.govt.nz

Dear Tami

#### **Update on progress of Ravensdown Hornby Stormwater Improvements Project**

Throughout 2020 Ravensdown have been constructing their new stormwater system, to manage the stormwater runoff from the roofs and hardstand areas of the site. Ravensdown are pleased to advise the Christchurch West Melton Zone Committee that the construction of the Stormwater Improvements Project for their Hornby site is now completed.

The COVID-19 lockdown delayed the original completion date slightly, but the new stormwater system was made fully operational in mid-June 2020. The new stormwater system consists of three large stormwater basins, and new connections to trade waste (sewer). The new system captures:

- 97% of rainfall events (not including > 5mm from roof areas);
- 91% of all runoff from impervious areas on the site; and
- 78% of all roof runoff.

The stormwater that is captured no longer discharges to Haytons Stream, but instead is sent to Christchurch City Council's (CCC) trade waste system, which means it can be appropriately managed at CCC's wastewater treatment plant. The detention ponds are required because the trade waste system in this area can only accept stormwater at a limited rate. The ponds allow run-off from large storms to be stored and discharged slowly. Photos of the three new basins are attached to this letter (Attachment 1).

Very large rainfall events will still overflow to CCC's stormwater network. Ravensdown still intend to sample this overflow to confirm whether that water needs any further management. Now that the new stormwater basins are in place, the automatic samplers are set up to sample water once the basins start to overflow and discharge to the CCC stormwater system.

Finding a solution for the site stormwater has been a long and complicated process and Ravensdown are very happy to have the new structures in place. There will be ongoing work and further improvements to stormwater management at the site over time. In the long term Ravensdown would like to reduce the amount of roof stormwater that is discharged to trade waste, and more work is planned to investigate the roof stormwater and confirm whether areas are clean enough to be removed from trade waste. There are also some earthquake damaged buildings to be replaced and Ravensdown expects that, over time, this kind of work will help them improve the quality of discharges from the site.

Other site improvements are also currently underway, with the construction of the new intake structure expected to be complete around October 2020. This structure contains a conveyor system which moves raw materials from trucks into the storage and processing buildings. The new intake will replace the structure which was damaged by fire in 2018. The new intake building and conveyor is fully enclosed to stop materials falling onto the ground, and this is expected to greatly reduce materials



entering the stormwater system from this area. The new intake system, including new roading and impervious surfaces, will also help seal the area and minimise stormwater run-off into land, which will help protect groundwater.

The groundwater beneath the site is still being sampled monthly by PDP to inform a consent application for management of the discharges to groundwater. It is hoped that the intake and stormwater management projects will benefit groundwater quality as well as the stormwater run-off, and help Ravensdown reduce their overall environmental footprint at the site.

If you would like further information about the project, please don't hesitate to contact us.

Yours faithfully



Anna Lindgren  
Associate

Enc:

Copies:

**Aurecon New Zealand Limited**  
Level 2, Iwikau Building  
93 Cambridge Terrace  
Christchurch 8013  
New Zealand

**T** +64 3 366 0821  
**F** +64 3 379 6955  
**E** [christchurch@aurecongroup.com](mailto:christchurch@aurecongroup.com)  
**W** [aurecongroup.com](http://aurecongroup.com)

 **aurecon**

Attachment 1: Stormwater basin photographs

**Basin 1 (western part of site)**





# aurecon

**Basin 2 (centre of site, visible from Main South Road)**



Note: The black hose in the photo was used to distribute the bark along the basin and is not a permanent fixture.

# aurecon

Basin 3 (western end of site)



Note: further landscaping and fencing to be completed at the time of this photograph

## 10. 2020 Election of Chair, Deputy Chair and Regional Committee Representative

Reference / Te Tohutoro: 20/911540

Report of:

Tami Woods – tami.woods@ecan.govt.nz

Item Timing – 15 minutes

General Manager:

### 1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is for the Christchurch West Melton Water Management Zone Committee to:
  - 1.1.1 Elect the Chair, Deputy Chair and Regional Committee Representative for 2020, as set out in the Terms of Reference.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee agrees to:

1. Elect the Chair, Deputy Chair and Regional Committee Representative.

### 3. Report

The Zone Committee

- 3.1 The Christchurch West Melton Zone Committee is established under the Local Government Act 2002 in accordance with the Canterbury Water Management Strategy 2009.
- 3.2 The Committee is a joint committee of Christchurch City Council, Selwyn District Council and Environment Canterbury.
- 3.3 The purpose and function of the committee is to:
  - Facilitate community involvement in the development, implementation, review and updating of a Zone Implementation Programme that gives effect to the Canterbury Water Management Strategy in the Christchurch West Melton Zone.
  - Monitor progress of the implementation of the Zone Implementation Programme.
- 3.4 The Committee does not have the authority to commit any council to any path or expenditure and its recommendations do not compromise the Council's freedom to deliberate and make decisions.
- 3.5 The Committee does not have the authority to submit on proposed Resource Management or Local Government Plans.
- 3.6 The Committee does not have the authority to submit on resource consent matters.

Operating Philosophy

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



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

#### Elections

- 3.8 Each year, the Committee is required to appoint the Chair and Deputy Chair from the membership by simple majority. There is no limit on how long a person can be in either of these positions.
- 3.9 The current Chair is Arapata Reuben. The Deputy is Kevin Brown. Arapata wishes to stand down from the role of Chair in 2020.
- 3.10 The Committee also needs to appoint a member to the position of representative on the Regional Committee. The current Regional Committee representative is Les Wanhalla.

#### Guide to Roles

- 3.11 As a guide to help you consider nominating yourself or someone else for these roles, the main tasks associated with each are shown below. In addition, this link provides a useful description of the role of a committee chair:  
<https://www.diycommitteeguide.org/resource/chairing-meetings>

#### The Chair:

- Chair Committee meetings with all commonly recognised authority of that position. The Chair may ask the Zone Facilitator to facilitate meetings and workshops of the Committee.
- Speak on behalf of the Committee and act as an advocate for it, including taking the primary responsibility for interaction with the media and representing the committee at meetings with external parties.



- Work with the facilitator on the work programme and agenda for the Committee.
- Be available to other committee members for support and discussion.

The Deputy Chair:

Supports and works with the Chair including on agenda setting and process aspects, and if the Chair is absent or incapacitated, the Deputy Chair must perform all of the responsibilities and duties of the Chair as above.

Co-chair:

In the case of the co-chair agreement, the two members shared the role equally and it included, but was not necessarily limited to, the following:

- Sharing the chairing of meetings (usually alternating)
- Sharing the co-chair article in local media (supported by ECan comms teams)
- Meeting with the facilitator once a month to de-brief/plan the next meeting
- Occasional other meetings with ECan or SDC staff to discuss specific topics
- Being available to respond to/decide on specific questions/logistics/media requests from facilitator and others
- Being available to other committee members for support and discussion

The Co-Chairs can agreed to split the payments equally i.e. combined Chair and Deputy Chair fees split 50/50.

The Regional Committee Representative has the following roles:

- Speak on behalf of the Selwyn Waihora Zone Committee and act as advocate for it, at Regional Committee meetings.
- Keep the Selwyn Waihora Zone Committee well informed on the activities and deliberations of the Regional Committee.

Process to Elect of Chair and Deputy Chair

A local authority or a committee (if the local authority has so directed) must determine by resolution that a person be elected or appointed by using one of the following systems of voting:

- (a) [System A]; or
- (b) [System B].

System A

- (a) requires that a person is elected or appointed if he or she receives the votes of a majority of the members of the local authority or committee present and voting; and
- (b) has the following characteristics:
  - (i) there is a first round of voting for all candidates; and

- (ii) if no candidate is successful in the round there is a second round of voting from which the candidate with the fewest votes in the first round is excluded; and
- (iii) if no candidate is successful in the second round there is a third, and if necessary subsequent round of voting from which, each time, the candidate with the fewest votes in the previous round is excluded; and
- (iv) in any round of voting, if 2 or more candidates tie for the lowest number of votes, the person excluded from the next round is resolved by lot.

System B

- (a) requires that a person is elected or appointed if he or she receives more votes than any other candidate; and
- (b) has the following characteristics:
  - (i) there is only 1 round of voting; and
  - (ii) if 2 or more candidates tie for the most votes, the tie is resolved by lot."

[cl. 25, Schedule 7, LGA]

## Attachments

There are no attachments for this report.

## 11. Stormwater Management Plans

Reference / Te Tohutoro: 20/908525

Presenter(s) / Te kaupāhō: Paul Dickson, CCC Drainage Engineer  
Item Timing – 30 minutes

### 1. Purpose of Report / Te Pūtake Pūrongo

1.1 The purpose of this report is to outline to the Christchurch West Melton Water Management Zone Committee:

1.1.1 What a Stormwater Management Plan (SMP) is and its scope.

1.1.2 What are the most significant contaminant problems needing resolution and how these are likely to be addressed in the SMPs.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the information on SMPs and their scope.
2. Provide feedback on whether the “most significant contaminant problems needing resolution” have been identified.
3. Outline what further engagement the Committee would like to have on the draft SMP and the recommended responses to the “most significant contaminant problems needing resolution”.

### 3. Report / Te Pūrongo

3.1 Stormwater Management Plan (SMPs) are required by the Comprehensive Stormwater Network Discharge Consent as a means of demonstrating methods the Council will use to meet consent conditions. The conditions to be met to regulate contaminant mitigation are:

- Condition 19: build treatment facilities so as to achieve contaminant load reduction targets
- Condition 23: implement best practicable options toward achieving water quality and ecological targets derived from the Land and Water Regional Plan.

3.2 The role of SMPs is to:

3.2.1 Set targets and plan mitigation measures to achieve the ‘Overall Contaminant Load Reductions’ (see Table 2 below).

3.2.2 Propose a range of measures and demonstrate how the quality of stormwater will be progressively improved to meet the ‘Receiving Environmental Objectives and Attribute Targets’ for waterways, coastal water, groundwater and springs and quantity (including setting contaminant load reduction targets for that area).

**Table 2: Reductions in stormwater contaminant load**

	<b>Contaminant load compared to no treatment as at 2018</b>	<b>5 years from 2018 compared to no treatment (as at 2023)</b>	<b>10 years from 2018 compared to no treatment (as at 2028)</b>	<b>25 years from 2018 compared to no treatment (as at 2043)</b>
<b>TSS</b>	12 %	21 %	25 %	27 %
<b>Total Zinc</b>	10 %	15 %	18 %	20 %
<b>Total Copper</b>	16 %	23 %	28 %	30 %

The decisions about delivery are then determined through an Implementation Plan, which is to be drafted or reviewed to inform the Council's Long Term Plans.

SMPs in development cover the Heathcote and Halswell.

- 3.3 Under the Comprehensive Stormwater Network Discharge Consent SMPs are to be developed in consultation with Papatipu Rūnanga, the zone committees, community boards, DoC and Environment Canterbury's regional engineer and any rating district liaison committee. The conditions require that consultation includes a briefing to the Zone Committee at the early stages of SMP development and an opportunity to feedback on the draft. The SMP's are also publicly notified to receive feedback from the wider community.

This paper links to the consent requirement of a briefing at the early stages of development.

#### 3.4 Scope of SMPs

SMPs cover the effects of activities in urban areas that have adverse impacts on the environment and people. Rural land is mostly excluded, as are rural roads (for pragmatic reasons, by agreement between the two Councils). The CCC's attention is focused on contaminants that regularly exceed guidelines; these are copper, zinc and total suspended solids (mostly sediment). Bacteria that make rivers non-swimmable are an issue of public concern but being mostly from waterfowl sources they are not wholly within the CCC's sphere of control. However it may be useful for the CCC to deal with waterfowl through an SMP process.

#### 3.5 The most significant problems needing resolution

The most significant problems that have been identified to date are:

- 3.5.1 No quantifiable link between contaminants in stormwater and ecological outcomes in waterways.
- 3.5.2 A long-term predominance of steel roofs appears likely to make achieving zinc targets extremely difficult.
- 3.5.3 Tyre-derived zinc is extremely difficult and expensive to capture and treat.
- 3.5.4 Neither Council nor industry appears to yet have implementable means to capture sediment from construction sites.

### 3.6 Response to “The most significant problems needing resolution”

3.6.1 The link between contaminant levels and ecological outcomes will be addressed by:

- Investigations including the assistance of external scientific agencies (e.g. NIWA) to connect acute contaminant loadings with ecological effects.
- Monitoring ongoing research from the international scientific community.

3.6.2 Carrying out an economic investigation to identify the best practicable option from a range of options including roof materials substitution, painting (as a barrier to metals leaching), and on-site treatment

(e.g. [https://stormwaterx.com/stormwaterx\\_products/zinc-b-gone/](https://stormwaterx.com/stormwaterx_products/zinc-b-gone/))

3.6.3 The CCC’s response for tyre-derived zinc is likely to be:

- Introduce rain gardens and filters where practicable with new development, significant road upgrades and in particularly contaminated catchments.
- Monitor international progress on replacement technologies for zinc oxide in tyres.
- Remain in contact with the Ministry for the Environment over this issue.

3.6.4 Work with ECan and the industry until satisfactory sediment control methods are developed.

### 3.7 Feedback

The responses will be identified in the draft SMP in October.

The committee may give feedback on these draft responses. There will be further opportunity to give feedback in October.

## Attachments / Ngā Tāpirihanga

There are no appendices to this report.



## 12. Update on the Review and Proposed Changes to the Zone Committees' Terms of Reference

Reference / Te Tohutoro: 20/909022

Presenter(s) / Te kaupāhō: Tami Woods – tami.woods@ecan.govt.nz  
Item Timing – 15 minutes

### 1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is to provide an update to the Christchurch West Melton Water Management Zone Committee on:
  - 1.1.1 The proposed changes to the Zone Committee Terms of Reference (TOR) and the preparation of a new tri-annual joint letter of shared priorities from the Council's to Committee's and then the development of new Zone Committee Action Plans.
  - 1.1.2 The opportunity to consider the proposals and provide feedback through to the committee Chair/Deputy, Rūnanga representatives or Councillors to inform the next step of a workshop in August.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the information on the proposed changes to the Zone Committee Terms of Reference and the preparation of a new tri-annual joint letter of shared priorities from the Councils to Committees and then the development of new Zone Committee Action Plans.
2. Consider the proposals and provide feedback through to the Committee Chair/Deputy Chair, Rūnanga representatives or Councillors to inform the next step of a workshop on 24 August 2020.

### 3. Report / Te Pūrongo

- 3.1 Attachment A includes a copy of the policy paper from Caroline Hart, Environment Canterbury with an update on the review and proposed changes to zone committees.
- 3.2 The discussion around the TOR for the Christchurch West Melton Zone Committee could also include membership changes to reflect the significant role Christchurch City Council has in implementing the Canterbury Water Management Strategy in the zone. Options could include additional City Councillor and/or Community Board members as zone committee members and greater linkages to senior city council staff.
- 3.3 Feedback is sought from the Committee on the proposals to inform the next step in the review process which is (1) a workshop between the Council's, Rūnanga representatives and the Chair/Deputy on the Terms of Reference (TOR) and (2) a new tri-annual joint letter of shared priorities to the Committee from the Council's.
- 3.4 The Review workshop is scheduled on Monday 24 August.

## Attachments / Ngā Tāpirihanga

No.	Title	Page
A	Review and Proposed Changes to Zone Committees	29



## **Attachment 1: Policy Paper on Enhancing CWMS Implementation: Update and Discussion on the Review and Proposed Changes**

**Date:** July 2020

**Environment Canterbury**

**Key contact:** Caroline Hart [Caroline.Hart@ecan.govt.nz](mailto:Caroline.Hart@ecan.govt.nz)

### **Enhancing CWMS implementation: update and discussion on the review and proposed changes**

#### **Purpose**

1. To provide an update on the process and proposed changes associated with a review of some aspects of zone committees operation and focus, and describe next steps including involvement of Territorial Authorities, Zone Committee and Rūnanga reps

#### **Key points**

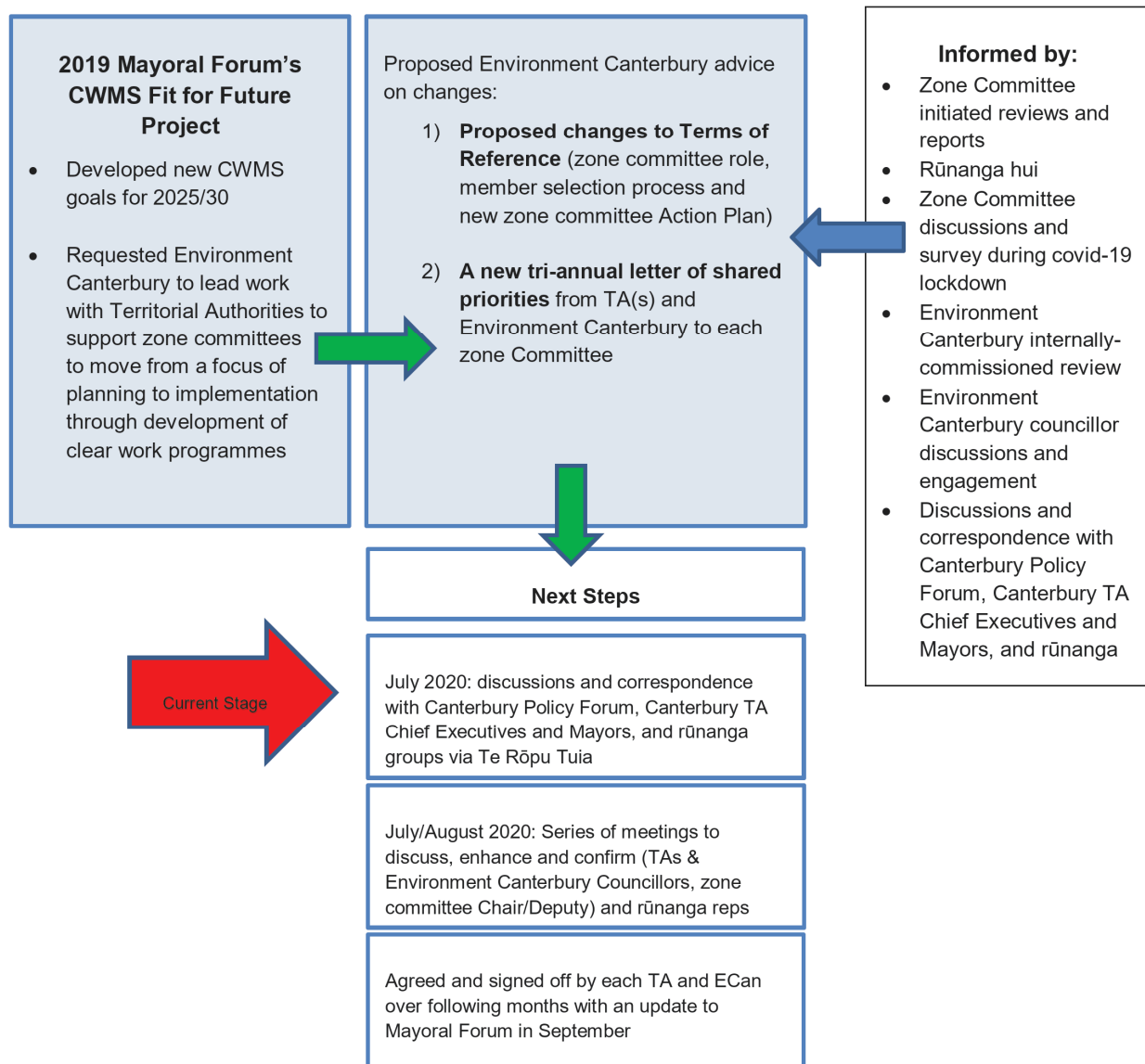
2. The Mayoral Forum, in 2019, affirmed the Canterbury Water Management Strategy and zone committees, and requested Environment Canterbury to lead advice on how to help zone committees transition from a focus on planning to one of implementation.
3. The advice, informed by different partners and processes, has been tested and refined with Environment Canterbury councillors and is now ready for further discussion with Territorial Authorities and rūnanga and zone committees.
4. The proposed changes are not considered major, but rather encompass adjustments to the zone committees Terms of Reference and a new Letter of Shared Priorities, all with the aim of providing committees with clarity on their purpose and role and refining the committees' ways of working. This is primarily through a reduction in the required number of formal meetings (freeing up time for community engagement) and the requirement for each zone committee to develop their own Action Plan.
5. This paper summarises the proposed changes and outlines the next steps in the process - engagement with Territorial Authorities, Rūnanga, and Zone Committees.

#### **Background**

6. As part of the recent Fit for Future project (populating the CWMS with 2025 and 2030 targets) the Mayoral Forum reaffirmed their support for zone committees and then asked Environment Canterbury to lead further advice on how to help zone committees focus more on implementation.

7. The review process is shown diagrammatically on the next page. Over the last few months, Environment Canterbury have developed a series of suggestions for changes to the role and function of zone committees, informed by many different processes and groups. The proposed changes have been tested and discussed with Environment Canterbury councillors and are now at a stage to be discussed and worked on with Territorial Authorities and with rūnanga and zone committees.

Diagram 1: Process and components of the review process



### Purpose of the review

8. The purpose of the review is to help develop strong well-connected zone committees that are focused on implementation through facilitating local action on the ground. This will ensure continued progress with the Canterbury Water Management Strategy, ensure that Canterbury is ready to respond to expected national direction on freshwater management, and support the Covid-19 regional recovery.
9. Explicit focus has been on acknowledging the good work the CWMS partners and zone committees have achieved through the first ten years of the CWMS and identifying how zone committees can transition from a focus on planning to implementation.

### Proposed changes

10. The proposed changes fall into two categories:
  - a. **Changes to the Terms of Reference for zone committees.** It is proposed that, with the exception of Christchurch West Melton Zone, the changes to the TOR will be consistent across all zones. The changes for Christchurch West Melton may be more substantial than for other zones to reflect the urban nature of the zone and the more prominent role of Christchurch City Council in implementation.
  - b. A new tri-annual joint **letter of shared priorities** sent to each zone committee from the Territorial Authorities(s) associated with the committee and the Regional Council
11. In addition, a minor change has been made to the code of conduct to remove the detail about exemption to conflict of interest provided by the Office of the Auditor General and Environment Canterbury councillors have recommended a review and moderate increase of honoraria for zone committees.

### Changes to the Terms of Reference (TOR)

See Appendix 1 for suggested changes to the Terms of Reference.

Table 1 summarises the proposed changes to the TOR and associated rationale.

Proposed changes (in order of appearance in the TOR)	Rationale
<b>Addition of detail on Council Standing Orders and conflict of interest</b>  New explanation that relevant Territorial Authority Standing Orders apply to the operation of the committee, including the requirement to make a declaration of conflict of interest and keep a register of interests.	Contextual change following the removal of the Office of the Auditor General's exemption for zone committees

Proposed changes (in order of appearance in the TOR)	Rationale
<p><b>Change to zone committee purpose and functions</b></p> <p>New explicit committee purpose: Uphold the mana of the freshwater bodies within their zone by facilitating enduring land and water management solutions that give effect to the Canterbury Water Management Strategy vision, principles and targets in their zone.</p> <p>Change function from developing, implementing, reviewing and monitoring progress of ZIP to:</p> <ul style="list-style-type: none"> <li>a) community engagement,</li> <li>b) enhancing delivery capability and coalition of the willing,</li> <li>c) progress reporting - reporting to councils every 18 months on progress towards delivery of the zone-specific priorities and CWMS targets identified in the Zone Committee's Action Plan</li> </ul>	<p>Many of the groups/feedback requested a more explicit statement of purpose, and one that incorporates Te Mana o Te Wai.</p> <p>Feedback received from zone committees (via survey) indicated strong support for the suggested roles of community engagement, enhancing delivery capacity, and coalition of the willing.</p> <p>Monitoring progress of the whole CWMS and its targets was not seen as a good role for the committees because they are not exclusively responsible for delivery of CWMS targets.</p> <p>Zone committees will instead be responsible for reporting their progress in implementing their own Action Plan rather than the CWMS targets themselves.</p>
<p><b>New Zone Committee Action Plan</b></p> <p>Previous objectives (focused on the ZIP) replaced by new requirement for a Zone Committee Action Plan and 18-month progress reporting to Councils. The Action Plan will cover a 3-year period, focus on 3-5 priority areas for the committee, state objectives the committee is seeking to achieve and state SMART measures to track actions and actions. [See Appendix 3 – Action Plan A3]</p> <p>Zone Committee Action Plans will be <u>bound by</u> the joint councils "letter of shared priorities", TOR and CWMS targets, and <u>guided by</u> the community priorities in ZIPs/ZIPAs and ongoing community liaison and engagement.</p>	<p>There was support from zone committees for mechanisms that provide a greater sense of direction and clarity for zone committees.</p> <p>Zone Committee Action Plans are a mechanism to help committees prioritise and focus on practical work, and to enable zone committees to clearly identify where it can add value, how progress and achievement can be measured, and to enable communities to see what zone committees are currently working on – and see their worth. They are developed by and owned by the zone committee, with actions for themselves.</p>

<b>Proposed changes</b> (in order of appearance in the TOR)	<b>Rationale</b>
<p><b>Changes to committee membership and selection process</b></p> <p>Membership changes enable rūnanga reps to nominate an alternative if unable to attend and enable the option of having a youth member join the committee.</p> <p>Suggested selection panel now includes an independent chair, the TA Councillor(s) appointed to the zone committee, the elected Environment Canterbury Councillor from the zone (who may or may not be the Councillor on the committee) and a rūnanga representative from each Rūnanga whose rohe covers the zone.</p> <p>Two new assessment criteria have been added: ability to focus on solutions taking into account future generations, and ability to work with local rūnanga. Note the option to identify potential future appointees during formal selection process should a community member vacancy arise.</p>	<p>Improvements to the selection process are aimed at improving transparency and reducing perceived or actual conflict of interest or bias.</p> <p>The refined assessment criteria aim to help committees build strong relationships with rūnanga and to take into account future generations. The ability to identify potential future appointees during formal selection process provides a more agile approach to replacement where vacancies arise.</p> <p>Environment Canterbury councillors discussed in depth the option of electing community members but overall felt this option should not be chosen at this time.</p>
<p><b>Reduction in number of meetings</b></p> <p>The committees will be required to meet at least 4 times per annum – a reduction from 8</p>	<p>Fewer formal meetings aim to enable committee members to fulfil their purpose with more community engagement and workshops</p>
<p><b>Change to wording in committee support</b></p> <p>Addition of senior staff members from relevant Territorial Authority and Environment Canterbury to the committee support section.</p>	<p>Zone Committees require commitment and support from senior staff members of the associated Councils</p>
<p><b>Christchurch West Melton specific changes</b></p> <p>Membership changes to reflect the significant role Christchurch City Council has in implementing the CWMS in the zone. Being specific to Christchurch West Melton these have not been outlined in the TOR in Appendix 1</p>	<p>The major influence on the state of the water resources in Christchurch City is the way Christchurch City Council provides for the city's drinking water, waste water and storm water infrastructure.</p>

#### ***New Letter of Shared Priorities***

12. A proposed new Letter of Shared Priorities aims to provide committees with some specific regional and zone priorities and direction to help committees develop their Action Plan. The letter will be sent to zone committees jointly from the Regional Council and Territorial Authority(s) associated with each zone soon after local body elections every three years. The regional council and each TA will develop a set of priorities they'd like the zone committee to focus on for the next three years. A draft letter has been included in Appendix 2 as an example.



13. As part of the next steps identified below, Councillors and senior staff from the Territorial Authorities will be invited to meetings with Environment Canterbury, zone committee chairs and rūnanga representatives to discuss the proposed changes, and for the Territorial Authorities, to then identify their priorities to go into the shared letter. It is envisaged that work your council is doing with Environment Canterbury as part of the CWMS Regional Work Programme will be aligned with this.

## **Cost, compliance and communication**

### **Financial implications**

14. Most of the recommended changes will not require any increased expenditure from Councils.
15. Two aspects that are likely to result in increased costs, and therefore need further discussions between councils are:
- a. payment for an independent chair of zone committee selection panels and
  - b. a potential increase in honoraria for zone committee community and rūnanga reps.

### **Risk assessment and legal compliance**

16. There remains uncertainty around COVID-19 impacts on councils and other external resources, focus and capacity which may lead to delays on proposed timeframes.
17. There is still uncertainty around implications of the Government's Essential Freshwater Package on the CWMS and its collaborative approach. While the Mayoral Forum has sought advice on how to support zone committees moving from planning to implementation, an intensive planning exercise may be reinitiated by central government policy announcements in mid-2020. Local government and zone committees will need to adapt to these requirements once clarified.

### **Significance and engagement**

18. Engagement will occur in accordance with the process shown in Diagram 1. As that diagram shows, the proposed changes have been informed by zone committees, rūnanga, Environment Canterbury review papers, and discussion and correspondence with various forums and sub-groups of the Mayoral Forum. Covid-19 lockdown prevented better engagement with zone committees, but the results of a survey sent to all members strongly influenced the proposals.

### **Communication**

19. A communications plan will be developed by Environment Canterbury with the Territorial Authorities once the proposed changes are agreed.

### **Next steps**

20. As shown in Diagram 1, next steps include discussions and correspondence at the Policy Forum, and with Territorial Authority Chief Executives and Mayors, leading to a series of meetings across the region to discuss, enhance and confirm the proposed changes and start drafting priorities for the Letter of Shared Priorities.
21. The aim is to enable each Territorial Authority and the Regional Council to agree and confirm these in July and August, with an update to the Mayoral Forum in September 2020.

### **Attachments**

- Appendix A: Proposed changes to Zone Committees Terms of Reference
- Appendix B: Proposed draft of Letter of Shared Priorities
- Appendix C: Proposed components of Zone Committee Action Plans



## Appendix A: Proposed changes to Zone Committees Terms of Reference

Table below provides the current TOR (using the OTOP Zone as an example) alongside the proposed new TOR.

**Green** = retained text from existing TOR    **Yellow** = details that vary for each zone

Current TOR	Proposed TOR
The area of the Orari-Temuka-Opihi-Pareora Water Management Zone is shown on the attached map	<b>AREA</b> The area of the xxx Water Management Zone is shown on the attached map
<b>Establishment</b> The committee is established under the auspices of the Local Government Act 2002 in accordance with the Canterbury Water Management Strategy 2009. The committee is a joint committee of Environment Canterbury (the Regional Council), Timaru District Council, MacKenzie District Council and Waimate District Council (the Territorial Authorities).	<b>BACKGROUND</b> The committee is an expression of the partnership between xxx District Council, xxx District Council, Environment Canterbury (the Regional Council), Papatipu Rūnanga and local communities to implement the Canterbury Water Management Strategy. The committee is established under the auspices of the Local Government Act 2002 in accordance with the Canterbury Water Management Strategy 2009. The committee is a joint committee of xx District Council, xx District Council and xx District Council (the Territorial Authorities) and Environment Canterbury (the Regional Council). Relevant Territorial Authority Standing Orders apply to the operation of the committee. This includes, requirement to make a declaration of conflict of interest, keeping a register of interests and guidance on attendance and absences at meetings. The committee will work as a committee and as individual members in accordance with Canterbury Water Management Strategy Zone Committee Code of Conduct.

Current TOR	Proposed TOR
<p><b>Purpose and Functions</b></p> <p>The purpose and function of the committee is to:</p> <ol style="list-style-type: none"> <li>1. Facilitate community involvement in the development, implementation, review and updating of a Zone Implementation Programme that gives effect to the Canterbury Water Management Strategy in the Orari-Temuka-Opihi-Pareora area; and</li> <li>2. Monitor progress of the implementation of the Zone Implementation Programme.</li> </ol>	<p><b>PURPOSE AND FUNCTIONS</b></p> <p>The Committee's purpose is to uphold the mana of the freshwater bodies within their zone by facilitating enduring land and water management solutions that give effect to the Canterbury Water Management Strategy vision, principles and targets in their zone.</p> <p>The committee functions include:</p> <ol style="list-style-type: none"> <li>a) <b>Community engagement</b> – continuing an active programme of engaging with communities on freshwater management matters and facilitating the provision of advice through to councils (relevant territorial authorities and Environment Canterbury and) and others (e.g. private sector) contributing to freshwater management;</li> <li>b) <b>Enhancing delivery capability and coalition of the willing</b> – working with stakeholders across all sectors to extend the resources available to implement the CWMS, including securing additional resources and seeking opportunities to promote, support, leverage and expand catchment-based initiatives that advance CWMS implementation;</li> <li>c) <b>Progress Reporting</b> – 18-month progress reporting to Councils on progress towards delivery of the zone-specific priorities and CWMS target areas identified in the Zone Committee Action Plan.</li> </ol>

<p><b>Objectives</b></p> <ol style="list-style-type: none"> <li>1. Develop a Zone Implementation Programme that seeks to advance the CWMS vision, principles and targets in the Orari-Temuka-Opihi-Pareora Zone.</li> <li>2. Oversee the delivery of the Zone Implementation Programme.</li> <li>3. Support other Zone Implementation Programmes and the Regional Implementation Programme to the extent they have common areas of interest or interface.</li> <li>4. Ensure that the community of the Zone are informed, have opportunity for input, and are involved in the development and delivery of the Orari-Temuka-Opihi-Pareora Implementation Programme.</li> <li>5. Consult with other Zone Water Management Committees throughout the development and implementation of the Orari-Temuka-Opihi-Pareora Implementation Programme on matters impacting other zone areas.</li> <li>6. Engage with relevant stakeholders throughout the development of the Orari-Temuka-Opihi-Pareora Implementation Programme.</li> <li>7. Recommend the Orari-Temuka-Opihi-Pareora Implementation Programme to their respective councils.</li> <li>8. Review the implementation Programme on a three—year cycle and recommend any changes to respective Councils.</li> <li>9. Monitor the performance of Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate District Council, and other agencies in relation to the implementation of the Orari-Temuka-Opihi-Pareora Implementation Programme.</li> <li>10. Provide Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate</li> </ol>	<p><b>ZONE COMMITTEE ACTION PLAN &amp; PROGRESS REPORT</b></p> <ol style="list-style-type: none"> <li>1. Ensure the purpose and functions of the committee is fulfilled by preparing a Zone Committee Action Plan that;             <ol style="list-style-type: none"> <li>a) Covers a three-year period</li> <li>b) Focuses on three - five priority areas for the zone committee</li> <li>c) States objectives that the zone committee is seeking to achieve</li> <li>d) States the actions that the zone committee will take to achieve the objective</li> <li>e) States SMART measures to track actions and outcomes.</li> </ol> </li> <li>2. Review and amend the Zone Committee Action Plan at the beginning of every year to ensure the zone committee is still in agreement with the priority areas and actions are still those the zone committee believes will achieve the objectives.</li> <li>3. Prepare an Progress Report every 18 months that;             <ol style="list-style-type: none"> <li>a) Highlights the actions of the zone committee and the progress it has made toward its objectives.</li> <li>b) Identifies the challenges and opportunities the zone committee see in the coming year.</li> <li>c) Present the report to Environment Canterbury and xx District Councils.</li> </ol> </li> <li>4. In developing the Zone Committee Action Plan, the committee will be bounded by the;             <ol style="list-style-type: none"> <li>a) Zone Committee Terms of Reference</li> <li>b) The 'letter of shared priorities' providing joint direction on priorities for the zone committee from Environment Canterbury and the relevant Territorial Authority</li> <li>c) Canterbury Water Management Strategy Targets</li> </ol> </li> <li>5. The committee will also be guided by;</li> </ol>
---	--

Current TOR	Proposed TOR
District Council with updates against the Zone Implementation Programme.	<ul style="list-style-type: none"> <li>a) Committee's Zone Implementation Programme and Zone Implementation Programme Addendum</li> <li>b) Community engagement and liaison</li> </ul>
<p><b>Limitations of Power</b></p> <p>The Committee does not have the authority to commit any Council to any path or expenditure and its recommendations do not compromise the Council's freedom to deliberate and make decisions.</p> <p>The Committee does not have the authority to submit on proposed Resource Management or Local Government Plans.</p>	<p><b>LIMITATIONS OF POWER</b></p> <p>The Committee does not have the authority to commit any Council to any path or expenditure and its recommendations do not compromise the Council's freedom to deliberate and make decisions.</p> <p>The Committee does not have the authority to submit on proposed Resource Management or Local Government Plans.</p>

### Committee Membership

The committee will comprise:

1. One elected member or Councillor appointed by Environment Canterbury;
2. One elected member appointed by each Territorial Authority operating within the Zone Boundary
3. Two members from Arowhenua Rūnanga (should be 1 Arowhenua and 1 Waiho)
4. Between 4-7 community members from a range of backgrounds and interests within the community; with provision that this number may be exceeded if Environment and each Territorial Authority operating within the zone boundary agree. Community members should represent a range of backgrounds and interests within the community.
5. Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate District Council will appoint their own representatives on the Committee. Arowhenua Rūnanga will nominate their representatives and the appointments will be confirmed by Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate District Council.

### Selection of Community Members

To be eligible for appointment to a Zone Committee the candidate must either live in or have significant relationship with the zone. Recommendations on Community Members for the Orari-Temuka-Opihi-Pareora Zone Committee will be made to Environment Canterbury, Timaru District Council and MacKenzie by a working group of representatives from Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate

### COMMITTEE MEMBERSHIP

The committee will comprise:

1. One elected member appointed by each Territorial Authority operating within the Zone Boundary
2. One elected member or Councillor appointed by Environment Canterbury
3. One Rūnanga nominated representative from each Rūnanga whose rohe covers the zone, with provision for an alternate Rūnanga member to attend zone committee meetings where desired
4. Between 4-7 community members with provision that this number may be exceeded if each Territorial Authority and Environment Canterbury operating within the zone boundary agree. Community members are to be appointed in accordance with the process below.
5. One youth representative may be added to committee in addition to the 4-7 community members on recommendation of the zone committee on a case by case basis.
6. XX District Council and Environment Canterbury, will appoint their own representatives on the Committee. Rūnanga will nominate their representatives and the appointments will be confirmed by Environment Canterbury and XX District Council. Where a youth representative is recommended expressions of interest will be drawn from Environment Canterbury's Youth Rōpū and Territorial Authorities Youth Councils and will be confirmed by XX District Council and Environment Canterbury,
7. Any Committee may co-opt such other expert or advisory members as it deems necessary to ensure it's able to

District Council, and Rūnanga. The recommendations will take into account the balance of interests required for Orari-Temuka-Opihi-Pareora, geographic spread of members and the ability of applicants to work in a collaborative, consensus-seeking manner. Environment Canterbury, Timaru District Council, MacKenzie District Council and Waimate District Council will receive the recommendations and make the appointments.

achieve it purpose. Any such co-option will be on a non-voting basis.

#### **SELECTION AND APPOINTMENT OF COMMUNITY MEMBERS**

Community representatives are appointed by a panel of CWMS partners – a councillor from each council and a Rūnanga representative from each Rūnanga whose rohe covers the zone. The panel will be chaired by an independent chair.

To be eligible for appointment to a Committee the candidate must live in or have a significant relationship with the zone.

The process involves:

1. A public call for expressions of interest.
2. Application
3. Interview and/or workshop

Assessment will be based on:

- Ability of an applicant to:
  - Work in a collaborative, consensus seeking manner
  - Work with local Rūnanga
  - Establish effective partnerships
  - Understand the complexity of the issues for freshwater
  - Focus on solutions, taking into account future generations.
- Geographic spread of members across the zone
- Existing community networks
- Previous experience in a leadership role
- Experience working with community processes and/or groups.

The selection process above will be primarily focused on appointment of community members to zone committee and may also serve as a means to



Current TOR	Proposed TOR
	identify potential future appointees should a community member vacancy arise.
<b>Quorum</b> The quorum at a meeting consists of; <ul style="list-style-type: none"> <li>i. Half of the members if the number of members (including vacancies) is even; or</li> <li>ii. A majority of members if the number of members (including vacancies) is odd</li> </ul>	<b>QUORUM</b> The quorum at a meeting consists of; <ul style="list-style-type: none"> <li>i. Half of the members if the number of members (including vacancies) is even; or</li> <li>ii. A majority of members if the number of members (including vacancies) is odd</li> </ul>
<b>Chair and Deputy Chair</b> Each year, the committee shall appoint the Chair and Deputy Chair from the membership by simple majority. There is no limit on how long a person can be in either of these positions.	<b>CHAIR AND DEPUTY CHAIR</b> Each year, the committee shall appoint the Chair and Deputy Chair from the membership by simple majority. There is no limit on how long a person can be in either of these positions.
<b>Term of Appointment</b> Members of Committees are appointed for a term of three years, which may be extended on a case by case basis if Environment Canterbury and each Territorial Authority operating within the zone boundary agree. Each Committee requires confirmation of membership by Environment Canterbury and each Territorial Authority operating within the zone boundary. The term for community members will be staggered so that one third of the community members is appointed (or reappointed) by a refreshment process involving Environment Canterbury, each Territorial Authority in the zone, and Rūnanga whose rohe is in the zone. Committee refreshments will occur in two years out of three or where numbers fall below strength due to attrition. There is no limit on the number of consecutive terms a member may serve.	<b>TERM OF APPOINTMENT</b> Members of Committees are appointed for a term of three years, which may be extended on a case by case basis if each Territorial Authority operating within the zone boundary and Environment Canterbury and agree. Each Committee requires confirmation of membership by Environment Canterbury and each Territorial Authority operating within the zone boundary. The term for community members will be staggered so that one third of the community members is appointed (or reappointed) by a refreshment process involving Environment Canterbury, each Territorial Authority in the zone, and Rūnanga whose rohe is in the zone. Committee refreshments will occur in two years out of three or where numbers fall below strength due to attrition. There is no limit on the number of consecutive terms a member may serve.

Current TOR	Proposed TOR
<b>Financial Delegations</b> None	<b>FINANCIAL DELEGATIONS</b> None



### Operating Philosophy

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

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

### OPERATING PHILOSOPHY

The Committee will at all times operate in accordance with the requirements of the Local Government Official Information and Meetings Act 1987 and Standing Orders of Territorial Authorities.

The Committee will observe the following principles:

1. Be culturally sensitive observing Ngāi Tahu tikanga;
2. Apply a ki uta ki tai (from the mountains to the sea) holistic approach that also enables cultural elements including mahinga kai philosophies held by mana whenua to be encompassed
3. Give consideration to and balance the interests of all water interests in the region in debate and decision making
4. Work in a collaborative solution-focused approach using best endeavours to reach solutions that take account of interests of all sectors of the community;
5. Contribute knowledge and perspectives but not promote the views or positions of any interest or stakeholder group;
6. Promote a philosophy of integrated water management to achieve multiple objectives of the range of interests in water.
7. Seek consensus in decision-making. In the event that neither unanimous agreement is able to be reached nor a significant majority view formed, in the first instance seek assistance from an external facilitator to further Committee discussions and deliberations. Where the Committee encounters fundamental disagreements, despite having sought

Current TOR	Proposed TOR
<p>Committee discussions and deliberations. Where the Committee encounters fundamental disagreements, despite having sought assistance and exhausted all avenues to resolve matters, recommend that respective Councils disband them and appoint a new Committee.</p>	<p>assistance and exhausted all avenues to resolve matters, recommend that respective Councils disband them and appoint a new Committee.</p>
<p><b>Meeting and Remuneration Guidelines</b></p> <ul style="list-style-type: none"> <li>The Committee will meet at least eight times per annum and with workshops and additional meetings as required. At times, the workload will be substantially higher. Proxies or alternates are not permitted.</li> <li>Any Committee may co-opt such other expert or advisory members as it deems necessary to ensure it is able to achieve its purpose. Any such co-option will be on a non-voting basis.</li> <li>Remuneration for members will be paid in the form of an honorarium currently set at the following levels: <ul style="list-style-type: none"> <li>a.Appointed members \$ 4,000 pa</li> <li>b.Deputy Chair \$ 5,000 pa</li> <li>c.Chair \$ 6,000 pa</li> </ul> </li> </ul> <p>Staff or elected members of Territorial Authorities or Environment Canterbury, shall not be eligible for remuneration.</p> <p>Mileage will be reimbursed.</p>	<p><b>MEETING AND REMUNERATION GUIDELINES</b></p> <ol style="list-style-type: none"> <li>The Committee will meet at least four times per annum and with workshops and additional meetings as required. At times, the workload will be substantially higher. Proxies or alternates are not permitted except as provided for Rūnanga representatives.</li> <li>Remuneration for members will be paid in the form of an honorarium currently set at the following levels: <ul style="list-style-type: none"> <li>a.Appointed members \$ X,000 pa</li> <li>b.Deputy Chair \$ Y,000 pa</li> <li>c.Chair \$ Z,000 pa (subject to review)</li> </ul> </li> <li>An expert or adviser who has been co-opted on to the committee is eligible for an honorarium at the same rate as an appointed member.</li> <li>Staff or elected members of Territorial Authorities or Environment Canterbury, shall not be eligible for remuneration.</li> <li>Mileage will be reimbursed.</li> </ol>

Current TOR	Proposed TOR
<p><b>Committee Support</b></p> <p>The committee shall be supported by staff from the Territorial Councils and Environment Canterbury, primarily through the Committee Secretary and the Zone Facilitator.</p>	<p><b>COMMITTEE SUPPORT</b></p> <p>The committee shall be supported by staff from the Territorial Authority and Environment Canterbury, primarily through the Committee Secretary and the Zone Facilitator and senior staff member from relevant Territorial Authority and Zone Manager/Lead from Environment Canterbury.</p>

## Appendix B: Proposed draft of Letter of shared priorities

Date

xxx

Chair

Canterbury Water Management Strategy (CWMS) – xx Zone Committee

Dear xx

**xx District/City Council/s and Environment Canterbury Priorities for the period July 2020 – December 2022**

We would like to take this opportunity as Mayor of XX District/City Council/s and Chair of Environment Canterbury and to convey our Council's priorities, as they relate to water management in Canterbury, and identify the areas where our council would like the assistance of xx Zone Committee over the period July 2020 – December 2022.

Firstly, we wish to thank your Zone Committee for its contribution to the CWMS over the last ten years. We'd particularly like to thank you for your efforts to engage communities to develop your zone Implementation Programme (ZIP) in the early years and .....specific to zone committee

### Context

Since 2009 when councils throughout Canterbury and Ngāi Tahu decided there needed to be a better way to manage our freshwater than the previous 20 years of litigation much has changed. We now have a clear planning framework, investment in action is being taken across all sectors and the Government has set clear direction in a National Policy Statement and standards for freshwater. We are still recovering from two significant earthquakes, mycoplasma-bovis and now Covid-19 that has and will continue to have a huge impact on communities in the region.

A fundamental principle of the CWMS is that we need to work together in order to achieve our shared outcomes and targets.

Our councils are committed to work alongside communities for better freshwater outcomes through this difficult period. We felt it timely to clearly set out the priorities of our councils, and to seek your assistance to support the implementation of the CWMS.

We recognise the Government also wishes to see greater progress in the way we manage freshwater. We expect the Government will finalise its "Action for Healthy Waterways" in the near future and when they do we will review and amend our current priorities if required

### **Xx District Council Priorities**

### **Xx District Council Priorities**

### **Environment Canterbury**

Environment Canterbury is committed to playing its part to implement the CWMS.

In our term of Council, we wish to see greater progress being made to achieve freshwater outcomes that promote resilient and sustainable community priorities.

We have therefore set the following priorities where we believe zone committees can make the greatest difference over the balance of the term. These priorities are in line with the Environment Canterbury Strategic Direction and the functions of a regional council;

- **Kaitiakitanga Wāhi Toanga and mahinga kai Targets**  
In particular, working alongside landowners, Rūnanga, communities, Councils and others to inspire and grow support and resources to achieve the 2025 mahinga kai goal of five mahinga kai projects in each zone.
- **Ecosystem Health and Biodiversity Targets**  
In particular, working alongside landowners, Rūnanga, communities, Councils and others to inspire and grow support and resources to achieve the 2025 target goal covering all freshwater ecosystems through;
  - i. increased riparian management to protect aquatic ecosystems;
  - ii. reducing the number of fish barriers in the zone
  - iii. protection and enhancement of named wetlands
- **Recreation and Amenity Targets**  
In particular, the Water based recreational opportunity through working alongside landowners, Rūnanga, communities, Councils and others to support and grow resources to achieve the 2025 target to restore priority freshwater recreation opportunities in each zone, that do not meet contact recreation standards and developing plans and actions to achieve and show measurable progress.

**xx District Council** and Environment Canterbury look forward to receiving your Action Plan for specific to your zone for the period July 2020 – December 2022 and to continue to work alongside you and your communities to deliver the CWMS.

Yours sincerely

<b>Xxx</b> <b>Mayor</b> <b>xx District Council/City</b>	<b>Xxx</b> <b>Mayor</b> <b>xx District Council/City</b>
Jenny Hughey Chair Environment Canterbury	

Appendix C: Proposed components of Zone Committee Action Plans

**Why** have a Zone Committee Action Plan (purpose)?

- Help committees **prioritise and focus** on practical work for the year (1-2-or-3 years) [Practical and realistic not aspirational]
- **Communicate** the Zone Committee priorities and actions more clearly
- Enable zone committees to clearly identify where they can **add value**
- Enable annual **planning and scheduling**
- **Measure** committee's progress and achievements in a practical way
- Enable **communities to see** what Zone Committee are currently working on – and see their worth
- Break down complex issues into **achievable** sub-sections/goals

**How** an Action Plan would be done

- Zone committees will seek strong collaboration, trust and values as a group before doing their Action Plan

**Who** are the key players are and their roles

- **Action Plan owner:** Zone Committee. Councils will need to decide if it requires their sighting, approval or sign-off.
- **Action Plan compiler/updater:** Zone Committee Chair/Deputy with assistance from Zone Facilitators.
- **Action Plan implementer:** Zone Committee, with help from Zone Facilitator and Zone Manager and Territorial Authority Manager. Action Plan will be worded as actions for the zone committee, not councils or other agencies.
- **Other agencies in the zone:** Influence, and their own work programmes are influenced by Zone Committee Action Plan.

**When** an Action Plan would be done

- Action Plan would be developed for three year period, reviewed annually, confirmed by March each year.

**What** would be in an Action Plan

**Action-focused tasks bound by:**

- Zone Committee Terms of Reference
- Expectations from Councils (Letters of Partnership)
- CWMS Targets

**Action-focused tasks guided by:**

- ZIPs and ZIPAs
- Community engagement and liaison
- Realistic timeframes

E.g. Mock examples for Banks Peninsular zone committee

Sediment reduction for Wairewa - **Source more funding by [date] to complement existing funding for bank stabilisation work;**

To support Rūnanga through Whakaraupō Healthy Harbour project – **Advise and influence through Community Advisory Group;**

**Reporting**

- **Zone Committee** – Reporting of Zone Committee Action Plan achievements to Councils every 18 months
- **Territorial Authority(s) and Environment Canterbury** – staff developed Quarterly Reporting on aligned work programmes for zone committee information only
- Reports of other agencies in the zone will be provided to zone committee quarterly, for information only. E.g. Te Hapū o Ngāti Wheke, Banks Peninsula Conservation Trust, Community Boards, Department of Conservation, Industry organisations

**Look & Feel**

- Key aspects of CCC Community Board template <http://www.ccc.govt.nz/assets/Documents/The-Council/Community-Boards/Spreydon-Cashmere-Board-Plan-2017-19.pdf>
- Could include message from the chair, 'what is a zone committee, area overview, demographics, key outcomes and strategic priorities (what is the priority, why we want this, what the zone committee will do and how success will be measured)









## 13. Community Engagement Workshop and Next Steps

Reference / Te Tohutoro: 20/911476

Presenter(s) / Te kaupāhō: Kim Whitwell, Communications and Tami Woods, Zone Facilitator  
Item Timing – 15 minutes

### 1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is to provide a copy of the notes from the Community Engagement Workshop held with the Committee on 25 June 2020.
- 1.2 Outline the resulting draft community engagement ideas.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Receive the notes from the Community Engagement Workshop held with the Committee on 25 June 2020.
2. Provide feedback on the draft community engagement ideas.
3. Direct the Communications Working Group (the Chair/Deputy, Carly Sluys and Kevin Brown) to further develop the draft actions with staff.

### 3. Report / Te Pūrongo

#### Background

- 3.1 Attachment A includes a copy of the notes from the Community Engagement Workshop held with the Committee on 25 June 2020.

#### Draft Community Engagement Ideas

- 3.2 Attachment B includes a copy of the workshop identified topics, outcomes sought from engagement, who to engage with, how. The far-right column then includes draft Community Engagement Ideas pulled together by staff following on from the Workshop using the ideas identified at the workshop.
- 3.3 The Committee's feedback is sought on whether these appropriately capture the discussion at the workshop and if these are the ideas they would like to progress.
- 3.4 The ideas will inform the Zone Committee Engagement Plan. Capacity of staff to deliver the actions will however need to be factored into the final Plan.
- 3.5 It is recommended that the Communications Working Group work with staff to refine and further develop the community engagement ideas and address capacity to deliver.

## Attachments / Ngā Tāpirihanga

No.	Title	Page
A	Community Engagement Workshop Notes - 25 June 2020	55
B	Workshop Identified Topics of Outcomes Who and How and Draft Community Engagement Ideas	58

Item 13



---

## Workshop - Christchurch West Melton Water Management Zone Committee NOTES

---

**Date:** Thursday 25 June 2020  
**Time:** 6pm  
**Venue:** Woolston Community Library/Hall, 689 Ferry Road,  
Woolston

---

**Present**

**Members**

Kevin Brown - Community Representative  
Carly Sluys - Community Representative  
Abbie Wilson - Community Representative  
Councillor Phil Clearwater - Councillor Environment Canterbury  
Les Wanhalla - Te Taumutu Rūnanga  
James Daniels - Christchurch City Council  
Oscar Bloom – ECan Youth Rōpū

Ecan staff: Shelley Washington, Kim Whitwell, Harry Millar and Kate Hunt  
CCC staff: Clive Appleton

---

29 June 2020

**Zone Facilitator**  
Tami Woods  
Tel: 027 529 7761  
**Environment Canterbury**

**Principal Advisor**  
Diane Shelander  
Senior Policy Analyst  
Tel: 941 8304  
**Christchurch City Council**

**Committee Advisor**  
Liz Ryley  
Tel: 941 8153  
**Christchurch City Council**

[www.ccc.govt.nz](http://www.ccc.govt.nz)

**This forum has no decision making powers and is purely for the purpose of  
information sharing.**

**Workshop - Christchurch West Melton Water  
Management Zone Committee  
25 June 2020**

The agenda was dealt with in the following order.

**1. Apologies / Ngā Whakapāha  
Committee Decision**

That the apologies received from Arapata Reuben, Helen Caley, Annabelle Hasselman, Gareth Oddy, Cr Sophie McInnes, Kylie Jane Phillips, and for lateness Cr James Daniels, be accepted.

**2. Christchurch West Melton Water Management Zone Committee Workshop  
- Community Engagement**

Tami welcomed everyone to the workshop and introduced Kim Whitwell, Communications at ECan. She outlined the purpose of the workshop.

Each member suggested topics and outcomes, recorded as:

- Stormwater superhero for the wider community – awareness of where the stormwater goes.
- IMS – room for Zone Committee awareness in the wider community – so more people applying.
- Consulting by choosing one best group for each area to work with their networks.
- Better contact – A suggestion in the past was for Annabelle to lead a group to formulate a way to be part of their group on all areas, for better ideas.
- Awareness of where the stormwater goes for people disposing of cigarette butts – more understanding of the impact.
- Soil erosion in Cracroft Valley into the Cashmere Stream – increased involvement by the Cashmere community – see the councils informing their district plans of where not to carry out development.
- Community partnerships identify current partnerships for future partnerships – to celebrate and engage those doing well.
- Stormwater information sessions on key hot topics, e.g. in libraries – key people to speak – to engage and inform the community and raise the profile of the Zone Committee.
- Awareness/education about why water is the way it is, everything we do affects it – for knowing more earlier.
- Knowledge of the Zone Committee – raise the profile for more public input/interaction.
- Urban streams better and healthy streams.

A power point presentation was worked through as below.



Engagement  
presentation - 25 Ju

Comments during the presentation included:

- There are too many groups in one area so the Zone Committee could be facilitators in that area/engagement.

**Workshop - Christchurch West Melton Water  
Management Zone Committee  
25 June 2020**

- Community Water Partnership (CWP) – CCC has signed up to this, and it will be presented to ECan in July for a decision. The CWP will hold its first meeting in the next few months to identify how it will operate. The CWP scope will bring everyone together for benefit.
- Everyone interested in waterways is invited for involvement – greater good and impetus for waterways.
- Need to identify, contact and involve people who are not already involved.

An adjournment was taken from 7.10 to 7.23pm.

Members worked in groups to identify topics and outcomes. These were noted – see below.

- Stormwater superheroes increasing knowledge of where stormwater goes, general public/people who throw cigarette butts or dog poo away.
- Put information at point sources e.g. brake pad purchases.
- Schools and preschools about in-school programmes for ideas of what information is given to schools, and to fill gaps.
  - Christchurch City Council's Learning Through Action programme was noted.
  - Link to teachers interested to become part of learnings in the classroom.
- Immediate Steps
- How it works now, how it can be improved and made better, accessibility of IMS and how people get information about it. Ask people applying how they found out about IMS - to know where to add more value. Information from Rūnanga, industrial companies and stakeholders. Work with ECan IMS staff.
  - Outcomes - ensure we engage with everyone include those not already engaged with, through programmes existing and connections/networks. Target schools, landowners community groups, universities, water stakeholders.
- How through the team ECan works with Rūnanga and members going to events/target it to where we want IMS funding. Inform and work through Youth Engagement Team at ECan. CCC/ECan collaboration. Being involved posters etc. Target geographic areas.
- People in touch with the community currently not engaged, i.e. older generation 30-60+. Particular urban population.
- Get in touch with children/education to teach parents. Takeaway resources.
- Regular paper column, people together in local area.
- Survey why people are not engaged.
- Kids connect celebrating success – this is the Zone Committee and these are the successes.
- Other community groups, e.g. walking groups, Probus – how to involve others.
- Continue Meet in the Middle as this includes a great range of people.
- Schools, collateral, target different opportunities people together.

Staff will bring the information back to the Committee for moving forward.

**Meeting concluded at 8.09pm with a mihi/whakamutunga.**

Attachment 2: Workshop Identified Topics, Outcomes, Who and How and draft Community Engagement Ideas

Topic	Outcome sought from engagement	Who Target	Engagement Actions (How)	Other comments/issues	Potential Actions
Immediate Steps	<ul style="list-style-type: none"><li>People apply</li></ul>	<ul style="list-style-type: none"><li>Industrial companies</li><li>Runanga</li><li>Schools</li><li>Landowners</li><li>Community Groups</li><li>University</li><li>Other water stakeholders</li><li>Tuia (rūnanga)</li><li>Previous funding applicants</li></ul>	<ul style="list-style-type: none"><li>Use existing connections</li><li>Posters</li><li>Social media</li><li>Word of mouth</li><li>Hold workshop on IMS and invite groups to increase exposure</li><li>Target geographic areas</li><li>Celebrate success</li><li>YEET</li></ul>	<ul style="list-style-type: none"><li>Clearer information on how to apply for applications, etc</li><li>Think about timing of when call for applications</li></ul>	<ul style="list-style-type: none"><li>Update information on website and improve accessibility of info about IMS.</li><li>Social media messages/info – that can be shared by ECan and CCC and through ZC connections and rūnanga about:<ul style="list-style-type: none"><li>What type of projects fund;</li><li>Where further info is available;</li><li>Advertise workshop for potential applicants to ask staff and ZC questions, test ideas.</li></ul></li><li>Hold workshops on IMS in ZC priority catchments</li><li>Media articles covering success of prior projects</li></ul>
Better exchange of information/Relationship building  (Need to clarify what info this is the ZC are sharing – is it SOE info on water quality)	<ul style="list-style-type: none"><li>Increasing the profile of Committee</li><li>The Committee makes better decisions</li></ul>	<ul style="list-style-type: none"><li>Urban population</li><li>Community who are not engaged</li><li>Demographic 30-60</li><li>Engaged community to influence others</li><li>Schools and teachers</li></ul>	<ul style="list-style-type: none"><li>Build on existing networks and relationships</li><li>Education</li><li>Take away resources</li><li>Kids feast</li><li>Local paper column</li><li>Celebrate success</li><li>Local events (farmers markets)</li><li>Field trip for community</li><li>Social media</li><li>Match young or professionals to come and talk to Schools about water quality</li></ul>	<ul style="list-style-type: none"><li>Survey demographic</li></ul>	<ul style="list-style-type: none"><li>Use the Community Water Partnership as mechanisms to build relationship, exchange info and increase ZC profile with community groups</li><li>Run field trips for general community along ZC priority rivers about its health and impacts on activities on health</li><li>ZC members choose a catchment in the zone where they (or 2 members) make an effort to engage with groups operating in the catchment/schools and then share information on zone committee activities.</li><li>ZC meeting summaries prepared by Kim after each meeting that can then be shared by ZC members with their catchment networks.</li><li>E-newsletter, social media &amp; Chairs Columns prepared on ZC meetings and activities.</li></ul>
Stormwater superhero's (including copper free brake pad understanding)	<ul style="list-style-type: none"><li>People know where stormwater goes</li><li>Understand how they can reduce negative impacts</li></ul>	<ul style="list-style-type: none"><li>Universities &amp; ARA</li><li>Children and parents</li><li>People who smoke</li><li>General public</li><li>People who own dogs</li><li>People who litter</li><li>Owners and maintainers of big and small buildings</li><li>Car mechanics &amp; parts and spares stores</li><li>Schools</li><li>Preschool teachers</li></ul>	<ul style="list-style-type: none"><li>Public events</li><li>Stormwater superhero mobile resource</li><li>Match young or professionals to come and talk to Schools about water quality</li><li>Information about point of sale</li><li>Displays at Libraries</li></ul>	<ul style="list-style-type: none"><li>Understand impact of:<ul style="list-style-type: none"><li>litter</li><li>Dog poo</li><li>Copper brake pads</li><li>Mowing alongside streams</li><li>Feeding of birds</li></ul></li><li>Advise habitat changes to decrease habitat for geese</li></ul>	<ul style="list-style-type: none"><li>Media articles on where stormwater goes and the impacts of:<ul style="list-style-type: none"><li>litter</li><li>Dog poo</li><li>Copper brake pads</li><li>Mowing alongside streams</li><li>Feeding of birds</li></ul></li><li>Brochure prepared on copper free brake pads for car mechanics and car spare parts stores and distribute</li><li>Posters in libraries with info from media articles (i.e. covering bullets above)</li><li>Social media articles with info from media articles/posters.</li><li>Attend public events (with Stormwater superhero mobile resource):<ul style="list-style-type: none"><li>Kids feast</li></ul></li></ul>



					<ul style="list-style-type: none"><li>○ Local Markets along Heathcote (e.g. Opawa)</li><li>○ Meet in middle, etc</li><li>● Make a connection with Schools Programs.</li></ul>
Sediment and Erosion control	Not explored in second part of the workshop. To be progressed through Cashmere Stream and Port Hills Working Group.				



## 14. Cashmere Stream and Port Hills Working Group Update

Reference / Te Tohutoro: 20/909598

Presenter(s) / Te kaupāhō: Tami Woods, Zone Facilitator  
Item Timing – 15 minutes

### 1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is to provide an update on the progress of the Cashmere Stream and Port Hills Working Group.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Approve the updates to the Cashmere Stream and Port Hills Working Groups Terms of Reference from the Working Group.
2. Note the appointment of Lee Sampson, Waihoru/Spreydon-Cashmere Community Board and Mike Mora, Waipuna/Halswell-Hornby-Riccarton Community Board, as representatives on the Cashmere Stream and Port Hills Working Group.
3. Note the progress of the Cashmere Stream and Port Hills Working Group since February 2020.

### 3. Report / Te Pūrongo

- 3.1 On 24 October a workshop was held by the Zone Committee about the Cashmere Stream and the Port Hills. It was noted that clarity in Cashmere Stream continues to decrease. Key sources and issues included: clear-fell exotic forestry clearance; recreation tracks; stock access; stream cleaning to remove weeds for flood control; impact of fires; eight new subdivisions; and the Adventure Park.
- 3.2 Speakers at the workshop emphasised a lot of knowledge existed, but not enough was happening to reduce sediment sources. It was accepted by all that there will always be some erosion and sediment sources. But that more work could be done to improve awareness and management.
- 3.3 At the 28 November meeting the Committee reviewed feedback from the workshop and a list of potential actions. The Committee also endorsed the re-establishment of a working group on Cashmere Stream to prioritise and progress the potential actions. Involvement on the working group was also extended to Ken Rouse from the Cashmere Stream Care Group and members of the Ōpāwaho Heathcote River Network.
- 3.4 On 27 February the first working group meeting was held at Environment Canterbury. The Group identified a series of Actions and Priorities for 2020 and decided to invite members from the Waihoru/Spreydon-Cashmere and Waipuna/Halswell-Hornby-Riccarton Community Boards to join the Working Group.
- 3.5 The Group met on 10 March 2020 prior to COVID-19 lock down. After lock down the Working Group then met on-line on 12 May, 9 June and then in person on 14 July.

Updates to the Terms of Reference

- 3.6 Attachment A includes a copy of the Cashmere Stream and Port Hills Working Groups Terms of Reference updated by the Working Group to clarify the issues they are responding to and their area of focus.

Appointment of Community Board members to the Working Group

- 3.7 On 7 July the Waihoru/Spreydon-Cashmere Community Board appointed Lee Samson to the act as the Board's representative on the Cashmere Stream and Port Hills Working Group. Lee attended his first meeting on 14 July.
- 3.8 On 14 July 2020 the Waipuna/Halswell-Hornby-Riccarton Community Board appointed Mike Mora to the act as the Board's representative on the Cashmere Stream and Port Hills Working Group.

Progress of the Working Group

- 3.9 Attachments B, C, D and E provide a copy of notes from the meetings held by the Working Group and their activities. In summary this includes:
- Work on updating to the TOR to clarify the groups focus;
  - A re-evaluation of the priorities post covid-19 lock down;
  - A discussion around key technical reports and areas of focus for the group moving forward;
  - The preparation of a poster and a video about erosions and sediment control;
  - Receipt of a presentation on Stormwater Management Plans; and
  - A presentation and discussion about tools to help identify locations and priorities in the port hills to target 'hot spots' to minimise sediment losses.

## Attachments / Ngā Tāpirihanga

No.	Title	Page
A	Cashmere Stream and Port Hills Working Group Terms of Reference	63
B	Cashmere Stream and Port Hills Working Group Meeting Notes - 10 March 2020	68
C	Cashmere Stream and Port Hills Working Group Meeting Notes - 12 May 2020	70
D	Cashmere Stream and Port Hills Working Group Meeting Notes - 9 June 2020	72
E	Cashmere Stream and Port Hills Working Group Meeting Notes - 14 July 2020	74

## Attachment 1: Cashmere Stream and Port Hills Working Group Terms of Reference

### Introduction

The Cashmere Stream is an urban-fringe waterway located in southwest Christchurch (see Map 1). About 60 percent of the 2,822 ha catchment drains the Port Hills via predominantly ephemeral waterways, with the remainder of the catchment flat plains drained by predominantly permanently flowing, spring-fed waterways. The catchment is made up of a mix of urban and rural land.

The stream supports a range of caddisfly, kōura (freshwater crayfish), kākahi (freshwater mussels) and a good diversity of fish species (such as bluegill bullies, long finned eels and inanga). It also has high aesthetic and amenity values for the local community.

The Port Hills are a key source of fine clay-sized loess particles which are highly erodible when vegetation and protective topsoil is removed. Once these soil particles are in suspension during heavy rain and stormwater runoff, water clarity deteriorates.

Suspended sediment and the resulting low water clarity is a big issue for Cashmere Stream. Water clarity data collected between 29 November 2010 and 7 February 2018, by the Cashmere Stream Care Group<sup>1</sup> has shown that:

- Water clarity in Cashmere Stream is degrading over time.
- Water clarity degrades along the length of Cashmere Stream and is significantly worse in hill tributaries than in plains tributaries.
- Water clarity decreases with increasing rain.
- The most significant sediment contribution comes from the hill tributaries in rain events.

To improve water clarity in Cashmere Stream it will be necessary to focus on the hill catchments. These catchments are the source of the sediment which results in poor water clarity in the Cashmere Stream and then the Heathcote River. Treatment is more difficult due to the nature of loess soil, which does not settle out of the water column easily, meaning that traditional water detention basins and surface water wetlands will not be sufficient to improve water clarity to acceptable levels from tributaries draining the Port Hills.

In addition, 85 percent of the hill tributaries sampled fell into the 'very poor' water clarity category. This is below the point at which the level of suspended sediment affects stream life, both through light restriction and sediment settling on the stream bed.

The Cashmere Stream also fails to meet the fine sediment percentage cover freshwater outcomes for Canterbury Rivers (Table 1a<sup>2</sup>) in the Canterbury Land and Water Regional Plan.

Key sources of sediment arising from the Port Hills include that from:

---

<sup>1</sup> Refer <https://www.ohr.co.nz/function/file/48014112-777c-4046-b70b-900963a6aa9e>

<sup>2</sup> Refer <https://eplan.ecan.govt.nz/eplan/#Rules/0/51/1/23340>

- exposed soils resulting from clear-fell exotic forestry and inadequate riparian buffers
- poorly constructed and maintained recreation tracks
- loss of vegetative cover from over-stocking and stock access to unfenced water courses
- loss of vegetative cover as a result of fires
- large areas of exposed soils during subdivision development and poorly performing and managed sediment and erosion control strategies

#### Action to improve the Stream

At a workshop held by the Christchurch West Melton Zone Committee in October 2019, speakers emphasised that a lot of knowledge exists, but not enough action was being undertaken to adequately reduce sediment sources from the Port Hills.

#### **Scope of the Working Group**

The Working Group's focus is on the areas of the Port Hills that drain into the Cashmere Stream as shown in Map 2.

The Working Group will focus on action relevant to the coloured area in the attached map. However, where actions can benefit the wider Ōpāwaho Heathcote River catchment the delivery of the actions throughout the Ōpāwaho Heathcote River catchment will be considered.

#### **Establishment and disbandment**

The Working Group was established by the Christchurch West Melton Zone Committee at its meeting on 27 February 2020.

The Working Group will cease in December 2020, unless an extension to their work is agreed with the Christchurch West Melton Zone Committee.

#### **Membership**

The Working Group comprises of up to three Zone Committee members, two members from the Cashmere Stream Care Group, three members of the Ōpāwaho Heathcote River Network and one member from each of the Spreydon-Cashmere and Halswell-Hornby-Riccarton Community Boards.

The Zone Committee, Cashmere Stream Care Group, and Ōpāwaho Heathcote River Network Group and the Community Boards are to determine who will be involved.

Other groups and people may be invited as required, depending on actions being discussed/addressed.

#### **Meetings**

Meetings will be held monthly at the South Library between 6 and 8pm on the second Tuesday of the month.

### **Purpose**

The purpose of the Working Group is to identify, oversee and help with the implementation of priority actions to help improve the water clarity and ecological health of the Cashmere Stream with a primary focus on sediment and erosion control management from the Port Hills.

The group will:

- a. Identify priority actions to be progressed during 2020 and beyond to:
  - i. raise awareness of the issues;
  - ii. improve the current management; and
- b. Oversee and help with implementation of the priority actions identified.

### **Outcome**

By December 2020, the Working Group has identified their prioritised actions and have increased awareness of the issues across organisations and the community and/or improved current management.

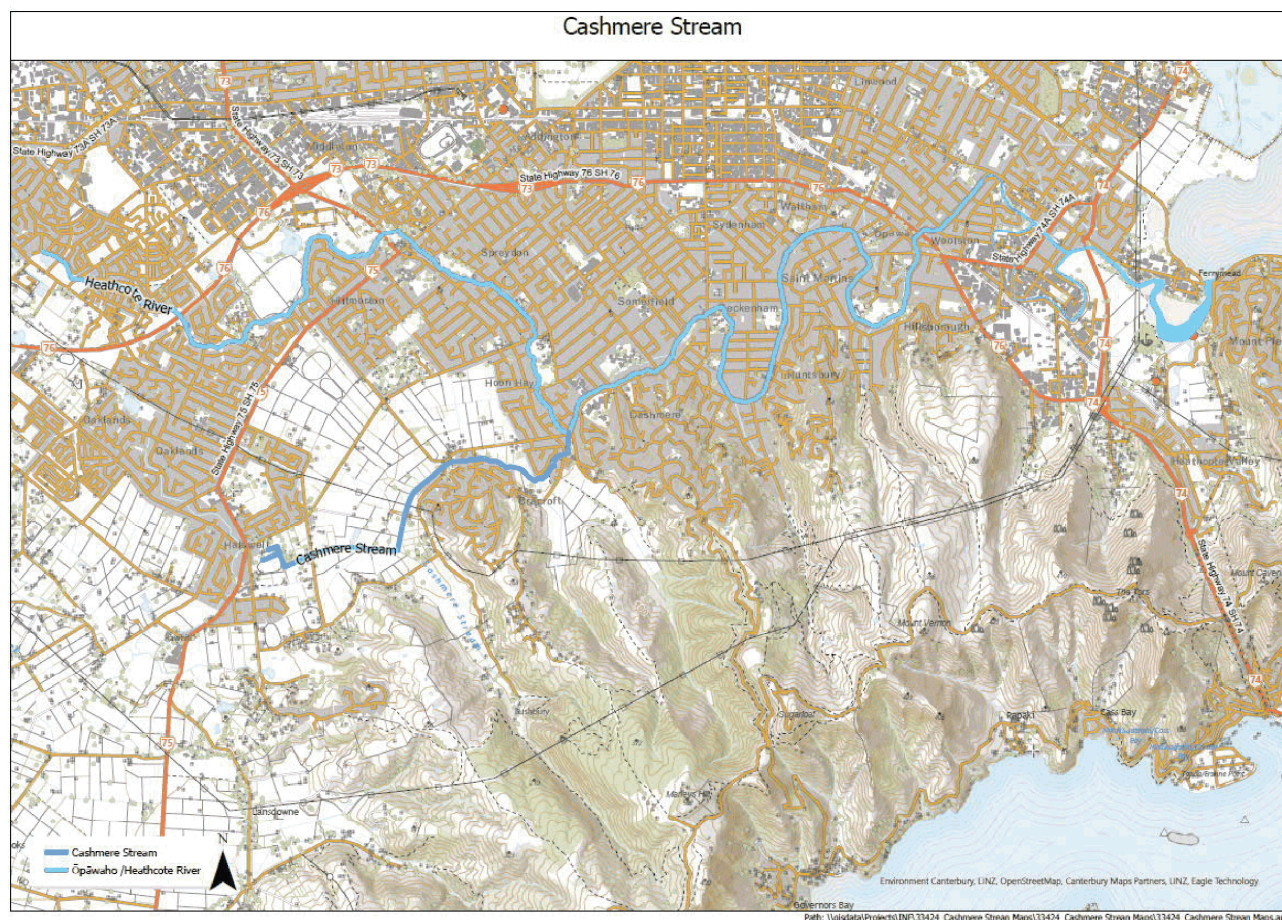
### **Role and responsibilities**

The Working Group will:

1. Identify priority actions to be progressed in 2020 and beyond;
2. Recommend the priority actions to the Christchurch West Melton Zone Committee for endorsement;
3. Oversee and assist with implementation of the priority actions; and
4. Report progress on priority actions to the Christchurch West Melton Zone Committee and Community Boards.

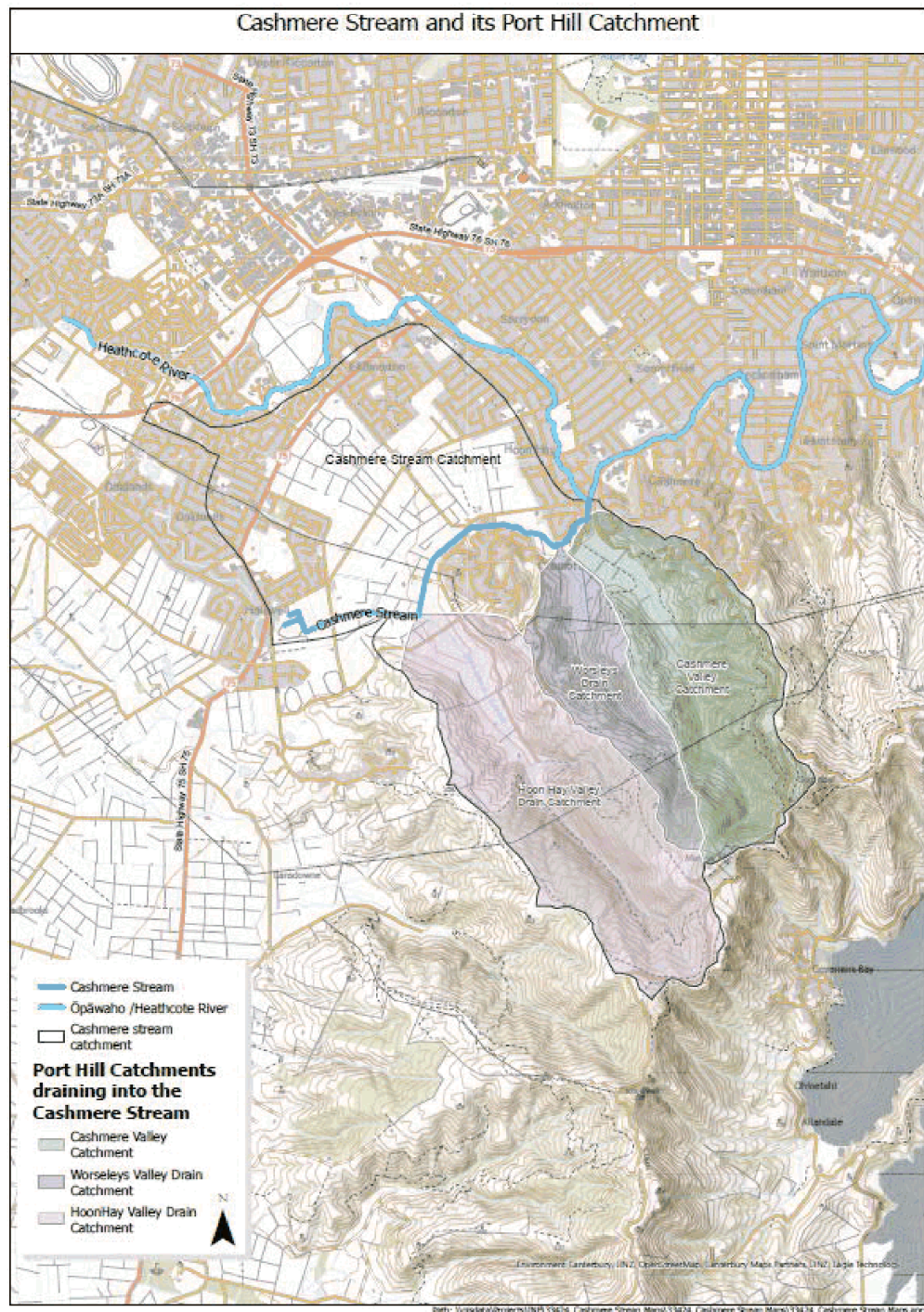


Map 1





Map 2



## Attachment 2: 10 March Cashmere Stream & Port Hill Working Group Meeting Notes

Meeting title	Cashmere Stream & Port Hill Working Group
Date	10 March 2020
Time	6pm to 8pm
Venue	South City Library Boardroom, 66 Colombo Street, Cashmere
Attendees	Annabelle Hasselman, Cr Phil Clearwater, Gareth Oddy, Ken Rouse, Alisdair Hutchinson, Robin Smith, Shelley Washington (ECan), Harry Millar (ECan)
Apologies	Arapata Reuben, Elizabeth Bertolett and Kathryn Bates.

Item	Discussion	Follow-up/Actions
1. Welcome/introductions	Introductions from Harry from ECan (Land Management Advisor) and Robin (CSCG) were undertaken.	Nil
2. Check in around final TOR for Working Group (see Attachment 1). a. Update on invite to Community Boards.	Discussion held around making changes to the ToR. This focused on beefing up the context of the issue for Cashmere Stream and urgency to act. Map to be updated to also show wider port hills and Opawaho-Heathcote Catchment.	Tami to update ToR and send to Alastair & Annabelle for final review to text and map.  Tami to follow-up with community Board Manager re member involvement on working group.

3. Cashmere Stream & Port Hills Actions and Priorities <ul style="list-style-type: none"> <li>a. Check in around priorities identified through last meeting and potential meeting topics for rest of the year.</li> <li>b. Discussion around progressing Communication Actions</li> </ul>	Discussion around actions and priorities for year was undertaken. Changes were suggested. Progression of communication actions as a priority was confirmed. Information needs during discussion included: <ul style="list-style-type: none"> <li>• Land-use in catchment</li> <li>• Lidar information</li> </ul>	Tami to update Priorities and follow-up with information about land use in the catchment.
4. Recommendations to CCC 3 Waters and Environment Committee on 25 March	Discussion of recommendations undertaken and confirmed.	These did not go to the 3 Water Committee. Scheduled now for 29 July.
5. Priority 1: Rainy day inventory planning. <ul style="list-style-type: none"> <li>a. Discussion around 'hot spots' in catchment to target</li> <li>b. Next steps</li> </ul>	Discussion about rainy day inventory undertaken. Through discussion it was confirmed that a 'bus trip' would be a more useful format than an inventory.	Tami to follow-up with concept of 'bus trip' for working group, wider Zone Committee, Councillors and Community Board.

### Attachment 3: 12 May Cashmere Stream & Port Hill Working Group Meeting Notes

Meeting title	Cashmere Stream & Port Hill Working Group
Date	12 May 2020
Time	6pm to 7pm
Venue	Remote using 'MS Teams'
Working Group Attendees	Annabelle Hasselman, Cr Phil Clearwater, Ken Rouse, Robin Smith, Elisabeth Bertolett, Alisdair Hutchinson, Oscar Bloom.
Staff Attendees	Tami Woods, Shelley Washington,
Apologies	Harry Millar, Gareth Oddy, Arapata Reuben (technical issues)

Item	Discussion	Follow-up
1. Welcome		
2. Check in around everyone's thoughts around moving things forward again.	Alasdair raised need to find out about the comprehensive stormwater consent.	Tami to follow-up with getting an update from CCC on progress
3. Notes from last meeting	The need for a good map to clarify scope was reinforced	Tami to follow-up
4. 'Priorities & Action' moving forward given COVID-19 (see attached)	<ul style="list-style-type: none"> <li>Support for desktop assessment of technical Info to support assessment of "Hot Spots"</li> <li>Support for a communication focus through COVID-19 alert levels (also refer to footnote over page re additional things to try and capture).</li> <li>Learning from experts should be held sooner rather than later.</li> <li>Check with group that we are getting right information from staff that they need for discussions. I.e. check with working group on key questions prior.</li> <li>Shelley outlined the follow-up she was doing around letters to partners and information from Banks Peninsula Conservation Trust</li> <li>Delay to report the to the '3 Waters Committee' of CCC (with cashmere stream recommendations) was noted. Now being 29 July. Follow-up was requested about how this will be presented to CCC and also in front of ECan Council.</li> <li>Changes to Priorities &amp; Action' moving forward given COVID-19 with changes from meeting (shown in red).</li> </ul>	<p>Annabelle to circulate submissions by the OHRN (done)</p> <p>Shelley to circulate information from Banks Peninsula Conservation Trust (done)</p> <p>Tami to ensure before staff come and talk about aspects to Wking group we have confirmed questions with Wking group they would like covered</p> <p>Tami to follow-up re '3 Waters' CCC paper.</p>
5. Timing	Discussion around time of meetings if over video	Confirmed that change to 7pm.





## Attachment 4: 9 June Cashmere Stream & Port Hill Working Group Meeting Notes

Meeting title	Cashmere Stream & Port Hill Working Group
Date	9 June 2020
Time	7pm to 8pm
Venue	Remote using 'MS Teams'
Working Group Attendees	Annabelle Hasselman, Cr Phil Clearwater, Gareth Oddy, Ken Rouse, Robin Smith, Alisdair Hutchinson, Oscar Bloom.
Staff Attendees	Tami Woods, Shelley Washington, Harry Millar, Lauren Hamilton
Apologies	Arapata Reuben, Elisabeth Bertolett

Item	Discussion	Follow-up
1. Welcome a. Update on involvement from Community Board reps b. Confirmation of notes from last meeting (included with Agenda materials)	Tami noted that papers were going to both community boards about joining the working group. Likely to join working group in July.	Tami to provide up on Community Board reps when confirmed
2. Update on refinements to ToR (included with Agenda materials)	Annabelle and Alisdair were thanked for their contribution to the TOR and beefing up the context, in particular. Robin volunteered to make some further refinements.	All - Please review latest version of TOR (including Robin's further changes).
3. Desktop assessment of technical info (pdf of PowerPoint included with Agenda Materials)	<p>Harry presented summary information from three key Technical Reports:</p> <ol style="list-style-type: none"> <li>1. AECOM report</li> <li>2. EOS Ecology report</li> <li>3. Opus Report.</li> </ol> <p>Clarification for the Reports was sought, which were 1(2017), 2(2019, 2013 &amp; 2010), 3(2016). Alisdair asked for the reports to be circulated.</p> <p>The Group thanks Harry for his summary.</p> <p>Discussion was held about how the Reports (particularly the Opus one) provided recommendations of actions, but they were still at a high level. The challenge was to apply these practically on the ground and to particular locations in the catchment – to find out what to do and where. It was also noted that the group did not know if things that were recommended to be implemented by the agencies were being fully</p>	<p>Tami to send reports (or links to reports) to everyone.</p> <p>Next meeting to focus on details of:</p> <ol style="list-style-type: none"> <li>1. Following up with CCC and Cashmere Estate (and do we also include (and Christchurch Adventure Park and McVicar's Forestry).</li> <li>2. LIDAR info and modelling support to identify priority locations</li> </ol>



	<p>implemented. The strength of the working group looking into this in the context of cashmere catchment was recognised. Robin talked about looking at using LIDAR data and modelling to help the group identify where they could target actions to mitigate effects. Ken highlighted that historically the Hoon Hay catchment had contributed the most sediment to the stream, but now it was Cashmere Valley and the key players were CCC, Cashmere Estate. Looking at sites after rain to support analysis was also discussed. Robin was looking at also taking some video footage when opportunity arose after rain. From discussion four key areas were identified to move forward on and turn existing recommendations and information into placed base actions:</p> <ol style="list-style-type: none"> <li>1. Follow-up with CCC and Cashmere Estate</li> <li>2. LIDAR info and modelling support to identify priority locations</li> <li>3. Analysis of how the agencies were implementing recommendations in the Opus report and other reports</li> <li>4. Rainy day video and site analysis.</li> </ol>	<ol style="list-style-type: none"> <li>3. Analysis of how the agencies were implementing recommendations in the Opus report</li> <li>4. Rainy day video and site analysis.</li> </ol>
<ol style="list-style-type: none"> <li>4. Progress on comm's materials and check in on around content, purpose and role (see over page) <ol style="list-style-type: none"> <li>a. Poster</li> <li>b. Video</li> </ol> </li> </ol>	<p>Content and focus of the poster and video were discussed. It was acknowledged that the poster was not the key solution to the issues in catchment, but its use was confirmed. Video was supported. Group discussed how and where the poster would be used and placed.</p>	<p>Poster and Video to be progressed/finalised by staff.</p> <p>To clarify where placed and how at next meeting.</p>
<ol style="list-style-type: none"> <li>5. Confirm next meeting focus (in-person!)</li> </ol>	<p>Discussed during item 1.</p>	<p>Tami to check with all that happy to meet in person on 14 July.</p>

## Attachment 5: 14 July Cashmere Stream & Port Hill Working Group Meeting Notes

Meeting title	Cashmere Stream & Port Hill Working Group
Date	14 July 2020
Time	6pm to 8pm
Venue	South City Library Boardroom, 66 Colombo Street, Cashmere
Working Group Attendees	Annabelle Hasselman, Gareth Oddy, Ken Rouse, Robin Smith, Lee Sampson.
Staff Attendees	Tami Woods, Shelley Washington, Harry Millar, Michele Stevenson (ECan) and Paul Dickson and Kevin McDonnell (CCC),
Other Attendees	<a href="#">Clint Rissmann, Director, Land and Water Science</a>
Apologies	Sally Coates, Arapata Reuben, Alisdair Hutchinson, Oscar Bloom and Cr Phil Clearwater

Item	Discussion	Follow-up
1. Welcome 2. Confirmation of notes from last meeting 3. ToR with Maps 4. Update on Poster's and Video	<p>Lee Sampson from the Waihora/Spreydon-Cashmere Community Board was welcomed as was Sally Coates from the Ōpāwaho Heathcote River Network (However Sally is an apology at the meeting). It was noted that the Waipuna/Halswell-Hornby-Riccarton Community Board decision on appointment was occurring that evening.</p> <p>The maps for inclusion with the TOR were noted (see attached).</p> <p>Shelley handed out the posters for members of the group to put up in the cashmere catchment and provided an update to the group around the progress on the video. It was noted that the posters would complement the 'ECan Erosion &amp; Sediment Campaign' which had commenced.</p>	Nil
5. Presentation from ' <a href="#">Land and Water Science</a> ' on approach to identifying where in a catchment to target mitigations	Clint Rissmann (Remotely via MS Team) presented to the group the desktop LIDAR based tools (with ground truthing) available to targeting actions in the catchment. These tools enable the ability to triage investment so that "best bang for buck" can be achieved for reducing sediment at source before it gets to tributaries, Cashmere stream, Heathcote River. Investment in interventions enable slowing water down in the landscape so sediment can settle out. The type of interventions suitable for steep loess soil would still need to be	See below

	worked out and include geotechnical advice and local knowledge.	
6. Discuss next steps to progress the ideas identified at the June meeting.	<p>Ideas to progress discussed included:</p> <ul style="list-style-type: none"> <li>a. Following up with CCC, ECan and Cashmere Estate.</li> <li>b. Progressing tools that Clint presented on triage and identify priority locations for focus</li> <li>c. Carrying out an analysis of how the agencies are implementing recommendations in the Opus Report</li> <li>d. Rainy day video and site analysis. Robin's video @ <a href="https://www.youtube.com/watch?v=pRlcAQvmxys&amp;t=11s">https://www.youtube.com/watch?v=pRlcAQvmxys&amp;t=11s</a></li> <li>e. Staff rainy day investigation event proposed 14/15 or 28/29 August</li> </ul>	<p>Staff to scope project and funds required to triage and identify priority locations for focus following on from Clint's presentation.</p> <p>Group confirmed support for staff rainy day investigation.</p>
7. Next meeting focus:	Erosion and Sediment Control – free and frank conversation with local Experts (@ ECan and CCC) about issues and understand District/Regional Plan controls was confirmed	Staff to organise
8. Heathcote Stormwater Management Plan	<p>Paul Dickson presented on the role of SMPs and issues to be responded to in the SMP.</p> <p>Participants identified a lack of leadership from both agencies for erosion and sediment control and that ESC tools exist but not used effectively. It was noted that if the issue of sediment into Cashmere Stream and Heathcote River is taken seriously, that an approach like Clint Rissmann presented on is worthwhile, so can then focus on specific locations that will provide “best bang for buck”.</p>	Paul to provide opportunity for input into chapter of sediment when drafted.
Close 8.15pm		



## 15. Biodiversity Workshop and Next Steps

Reference / Te Tohutoro: 20/909382

Presenter(s) / Te kaupāhō: Tami Woods, Zone Facilitator  
Item Timing – 10 minutes

### 1. Purpose of Report / Te Pūtake Pūrongo

1.1 The purpose of this report is to:

- 1.1.1 Provide a copy of the notes from the Biodiversity Workshop held with the Committee on 28 May 2020.
- 1.1.2 Outline next steps.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

- 1. Receive the notes from the Biodiversity Workshop held with the Committee on 28 May 2020.
- 2. Endorse the proposed next steps.

### 3. Report / Te Pūrongo

3.1 Attachment A includes a copy of the notes from the Biodiversity Workshop held with the Committee on 28 May 2020.

### 4. Next Steps

4.1 The proposed next steps are:

- 4.1.1 The Immediate Steps (IMS) Funding Proposals identified at the workshop will be advanced, brought to Biodiversity Working Group then through to the full Committee.
- 4.1.2 A workshop will be held with the Biodiversity Working Group in September to work on content of the Implementation Action Plan (including 80/20 ideas) and then report back to the full Committee.
- 4.1.3 Priority catchments will be identified with the Biodiversity Working Group in October and then report back to the full Committee.
- 4.1.4 Communications tools to address issues around lack of awareness and people finding it hard to access of IMS funding will be developed between November and February by staff and ideas brought to the Biodiversity Working Group.
- 4.1.5 Community and stakeholder workshops in priority catchments about IMS and how to access will be undertaken in March 2021.

### Attachments / Ngā Tāpirihanga

No.	Title	Page
A	Biodiversity Workshop Notes	78



---

## Biodiversity Workshop - Christchurch West Melton Water Management Zone Committee NOTES

---

**Date:** Thursday 28 May 2020  
**Time:** 6pm  
**Venue:** Workshop Via Audio Link

---

**Present**  
Members

Kevin Brown - Community Representative  
Helen Caley - Community Representative  
Annabelle Hasselman - Community Representative  
Gareth Oddy - Community Representative  
Carly Sluys - Community Representative  
Councillor Sophie McInnes - Selwyn District Council  
Councillor Phil Clearwater - Councillor Environment Canterbury  
Les Wanhalla - Te Taumutu Rūnanga

---

2 June 2020

**Zone Facilitator**  
Tami Woods  
Tel: 027 529 7761  
Environment Canterbury

**Principal Advisor**  
Diane Shelander  
Senior Policy Analyst  
Tel: 941 8304  
Christchurch City Council

**Committee Advisor**  
Liz Ryley  
Tel: 941 8153  
Christchurch City Council

[www.ccc.govt.nz](http://www.ccc.govt.nz)

**This forum has no decision making powers and is purely for the purpose of  
information sharing.**

**Workshop - Christchurch West Melton Water  
Management Zone Committee  
28 May 2020**

The agenda was dealt with in the following order.

**1. Apologies / Ngā Whakapāha**

Apologies were recorded for Arapata Reuben, Councillor James Daniels, Kylie Jane Phillips and Abbie Wilson.

Tami introduced Kim Whitwell to the meeting. Kim is the newly appointed Communications member at ECan.

**2. Biodiversity Workshop Presentation & Discussion**

Kate Hunt presented a power point presentation on Biodiversity. The slides covered the following three topics; Support for developing an Implementation Action Plan, confirmation of support for scoping the list of Immediate Steps projects, and comms approach for Immediate Steps funding.

**Update on IMS Biodiversity Funding 2020/21**

Information covered the following funding applications:

- Shipley's Wetland Protection Project
- Saltmarsh Restoration Project
- Humms Drain Willow Control
- Coronation Reserve Restoration
- Bowenvale Lizard Habitat Protection Project.

Kate noted that each project could be fully scoped if there was agreement to them. Members supported all the projects listed above to being fully scoped, and noted that the projects in Otukaikino and Cashmere catchments align with the ZC's current priorities.

**Implementation Action Plan**

Kate Hunt outlined a proposal to create an Action Implementation Plan to help allocated IMS funding in a more strategic manner, on a catchment-scale approach. Discussion was held and members raised the following points:

- Having a strategy and idea of what we want/where to prioritise funds is good, and help to spread the message about IMS.
- Work through a smaller group to sort the detail first and then provide it to the whole Committee.
- Suggest spend 80% on one catchment/priority and leave a small amount of funding for smaller projects to keep small projects going.
- Agree on the need for priorities for applying to the fund.
- Agree urban/non-urban rivers at the same time.

**Comms approach for IMS Funding**

Kate noted that in her experience there had been a lack of interest/applications from community groups. She presented Kim Whitwell's outline for objectives, tactics and channels for Comms around IMS Funding. Discussion was held and members raised the following points:



**Workshop - Christchurch West Melton Water  
Management Zone Committee  
28 May 2020**

- Community groups don't know about IMS funding or what it is for and/or too hard to apply for
- Suggested a workshop with relevant community groups and ECan staff about IMS funding
- Consider how the ZC fits in with community groups activities/liaise with groups.
- Interaction with the public by the ZC/need to raise the profile of the ZC – bring information to the ZC on this.
- Further development of the Community Water Partnership - complete a stocktake of groups and agencies being dealt with already.
- Connector/facilitator for membership.
- Link through Community Boards for smaller projects.
- Promotion of snapshot projects of IMS projects completed.
- Be provided with information on activities carried out by the Youth Rōpū.
- Face to face meetings with people.
- Ensure the IMS funding outlined on ECan's website is up-to-date.
- Advertising in The Press

**Workshop concluded at 7.10pm.**

## 16. Facilitator's Update - 30 July 2020

Reference / Te Tohutoro: 20/911249

Report of: Tami Woods – [tami.woods@ecan.govt.nz](mailto:tami.woods@ecan.govt.nz)  
Item Timing – 5 minutes

General Manager:

### 1. Purpose of Report / Te Pūtake Pūrongo

The purpose of this report is to inform the Christchurch West Melton Water Management Zone Committee of upcoming events and relevant updates.

### 2. Officer Recommendations / Ngā Tūtohu

That the Christchurch West Melton Water Management Zone Committee:

1. Note the upcoming events and updates.

### 3. Report

3.1 Events since last meeting - Visit [www.ecocanterbury.org.nz](http://www.ecocanterbury.org.nz)

Event	Who	Comment
<u>Travis Wetland</u> Date: 15 August Time: 9:00 am - 12:00 pm Venue: Travis Wetland 280 Beach Road, Christchurch	Public	Working bee.
Southshore Reserve Date: 15 August Time: 10:00 am - 12:00 pm Venue: Southshore Reserve	Public	Community Planting
Water: On Site Solutions Date: 21 August Time: 7:30 pm - 9:00 pm Venue: WEA, 59 Gloucester St	Public	Vicky Southworth and Rachel Teen. Find out what a water-sensitive city is. How can we be more water sensitive, caring for ourselves and our city of springs and rivers? Learn about the changes needed in terms of society and our relationship with water-managers, and the practical options for retrofit or new build properties, such as rainwater gardens and permeable paving.
The Groynes Date: 23 August Time: 10:30 am - 12:30 pm Venue: The Groynes	Public	Community Planting

### 3.2 Updates

#### Committee member changes

Kylie-Jane Philips from Rāpaki Rūnanga has withdrawn from the Zone Committee. Staff are currently engaging with Rāpaki around her replacement.

Oscar Bloom has also now been formally appointed to the committee as a youth member.

#### Next quarterly update to Christchurch City Council

The last quarterly update to Three Waters Infrastructure and Environment Committee was delayed due to COVI-19. The report is now scheduled to be received on by the Committee on 26 August.

#### Zone Committee Annual Report

The Zone Committee Annual Report will be presented to CCC as part of the update to the Three Waters Infrastructure and Environment Committee update on 26 August.

Arapata Reuben presented the Report to Environment Canterbury on 12 March.

#### Evan Smith Stormwater Superhero

The Stormwater Superhero award for Evan Smith was presented to him by Annabelle Hasselman and Shelley Washington on 3 July. The following provides a link to the article run on Evan receiving the award.

<https://ecan.govt.nz/get-involved/news-and-events/zone-news/christchurch-west-melton/local-stormwater-superhero-awarded-for-his-efforts/>

Attachment A is a copy of the article.

#### On-site reviews of erosion and sediment control practices

During July Environment Canterbury is conducting reviews of erosion and sediment control practices at building sites in Cashmere and the Port Hills, with fines for non-compliance.

The following provides a link to the article outlining the campaign.

<https://ecan.govt.nz/get-involved/news-and-events/zone-news/christchurch-west-melton/erosion-and-sediment-control-reviews-may-lead-to-spot-fines/>

#### Community Waterways Partnership Charter

At the 22 August 2019 Zone Committee meeting the Committee agreed to become a signatory to the Community Waterways Partnership Charter. It also recommended that ECan and CCC endorse the Community Waterways Partnership Charter.

The purpose of the Charter is to help shape how the community water engagement programme covering communication, education and awareness of the wider community, required under their new Comprehensive Stormwater Network Discharge Consent, will be delivered.

The Christchurch City Council signed up to the Charter on 14 May. Environment Canterbury is still to consider whether to sign the charter.

#### Ōpāwaho Heathcote River Network (OHRN) Banner

Ōpāwaho Heathcote River Network has created a banner about the ecology, history and issues of the Ōpāwaho Heathcote River. It is a large banner the size of a gazebo side that the Network used for the first time at Estuary Fest in February and will be used for future events. This is a fantastic information

resource developed by the Network. An A1 copy of the banner will be up on the wall at the meeting for the Committee to view.

#### Haytons-Paparua Stream Action Plan

Attachment B is a copy of the finalised Hayton's Stream Action Plan. The implementation of the Plan is now being led by Christchurch City Council.

#### Otukaikino Catchment

On the week of the COVID-19 lockdown, the Committee was scheduled to have a field trip to Otukaikino catchment. The field trip was postponed. The field trip is now proposed to occur in September.

Discussions with landowners at the top of the catchment about recent science information on the instream ecological health and wetlands occurred on 14 July. On-going work with the landholders to identify actions and potential funding is being supported by the Water and Wildlife Habitat Trust in conjunction with Fish and Game, CCC and ECan staff. An update will be provided to the Committee in August.

#### Our Freshwater Report

The Ministry for the Environment and Stats NZ have released Our Freshwater 2020 in April.

<https://ecan.govt.nz/your-region/your-environment/water/canterburys-water/freshwater/>

The report provides a national overview of the pressures on freshwater, and impacts from these, together with changes in state (and trends) through the lens of three themes and four environmental issues. The themes are water quality; water quantity and flows; freshwater ecosystems, habitats and species.

The issues in the report are:

- Our native freshwater species and ecosystems are under threat
- Water is polluted in urban, farming, and forestry areas
- Changing water flows affect our freshwater
- Climate change is affecting freshwater in Aotearoa New Zealand.

The report provides a national picture of the pressures, states, and impacts on lakes, rivers, and groundwater. While recognising that significant regional variations exist, the report does not provide specific regional information or commentary on how freshwater is being managed – this is out of scope. The Secretary for the Environment and Government Statistician, in their introductory comments, state that changes in the state of our freshwater – both positive and negative – can take time. Some effects we are seeing today are legacies from our parents and grandparents. In some places we can expect to wait decades to see the results of our efforts to raise the health and mana of freshwater.

#### Freshwater Package Announcement 28 May 2020 – Action for Healthy Waterways

Attachment C provides an overview of the Freshwater Package Announcement.

Further information can be found at <https://www.mfe.govt.nz/action-for-healthy-waterways>

Environment Canterbury is waiting on the content of the National Policy Statement and National Environmental Standards however to fully understand the implications of the announcements.

#### Groundwater Quality Reports

Two ECan groundwater reports were recently published and the new LAWA groundwater quality topic has been launched:

<https://www.lawa.org.nz/explore-data/groundwater-quality/>

A link to the LAWA topic and our reports have been published on these pages:

<https://ecan.govt.nz/your-region/your-environment/water/canterburys-water/>

<https://ecan.govt.nz/your-region/your-environment/water/canterburys-water/groundwater/>

Questions and Answers for you to refer to are at Attachment D.

Below are some key messages from each report from Environment Canterbury:

#### Groundwater survey

- Our annual survey reports data to 2019, so is a little ahead of LAWA
- The focus is on nitrate trends and results, which are particularly important to Cantabrians and all New Zealanders
- We welcome all research into the health impacts of nitrate in waterways
- This survey shows little change from earlier ones in line with our predictions (we expect little improvement for 15-20 years due to legacy effects, although our plans and on-the-ground action are having an impact)
- See <https://ecan.govt.nz/get-involved/news-and-events/2019/nitrate-in-waterways-whats-the-story/>

#### Nitrate risk maps

- For those with private wells drawing water from shallow aquifers
- Little change since 2017
- Used by Community and Public Health to ensure safe drinking water for private well owners - see <https://www.cph.co.nz/your-health/drinking-water/> for individual zone maps.

#### LAWA groundwater quality topic

- We welcome the launch of the topic – it's a valuable addition to the water / environmental information now available to the community that LAWA has been building for some time, with support from councils
- It brings ECan data (from last year) into a national framework
- We also welcome the *E.coli* trends data (something ECan collects but we've not been reporting).

Feedback on what worked or did not work around ZC communication during COVID-19 Alert levels

Feedback is sought around what worked and didn't work during COVID-19 alert levels around Zone Committee work and communication and what you might like to keep moving forward. For example:

- Are e-mail updates more useful than items in the facilitators update or do you prefer them at the meetings?
- Do you want to do more video/remote meetings/workshops?
- Would you like to do more workshop type sessions on topics and have less meetings?

## Other Media

New guide puts Christchurch walks on the map

<https://newsline.ccc.govt.nz/news/story/new-guide-puts-christchurch-walkways-on-the-map>

Council to roll out backflow-stopping devices

<https://newsline.ccc.govt.nz/news/story/council-to-roll-out-backflow-stopping-devices>

Item 16

## Attachments

No.	Title	Page
A	Stormwater Superhero Award	86
B	Haytons-Paparua Stream Action Plan	88
C	Government Freshwater Package Announcement	99
D	Groundwater Quality Questions and Answers	103

[HOME](#) / [NEWS & EVENTS](#) / [LOCAL STORMWATER SUPERHERO AWARDED FOR HIS EFFORTS](#)



## Local stormwater superhero awarded for his efforts

**Date:** 10 Jul 2020

**CATEGORY:** [NEWS](#) | [Water Quality](#) | [Zone Committee](#) | [Water](#)

**ZONE(S):** [CHRISTCHURCH WEST MELTON](#)

Local stormwater superhero, Evan Smith, has recently been awarded an honorary [Stormwater Superhero](#) Award, by the [Christchurch West Melton Water Zone Committee](#), for his efforts towards improving water quality in Ōtākaro/Avon River.

Smith has dedicated significant time and effort towards community education, raising awareness, and facilitating community action in the Ōtākaro/Avon River and wider catchment.

Annabelle Hasselman, Chair of the [Ōpāwaho Heathcote River Network](#) and Christchurch West Melton Water Zone Committee member, said Smith is a role model for all of us working to improve the health of our urban waterways in Christchurch.

"His knowledge of the area and ability to see a vision and work towards it is inspiring."

## Committee acknowledges Smith's achievements

"Evan continues to champion reducing contaminants in our waterways by controlling what is entering our stormwater system at the source.

"Aside from improving our infrastructure, he believes behaviour change through community education, awareness-raising, and community actions can be effective," said Hasselman.

On behalf of the Christchurch West Melton Water Zone Committee, Environment Canterbury and supporting community groups, Hasselman congratulated Smith on his award and extended her thanks for his tireless efforts to raise awareness and visualise a brighter future for waterways.

"Tēnā rawa atu koe, thank you very much Evan," said Hasselman.



## A force to be reckoned with

Smith has been a strong advocate for the environment - making presentations and submissions; organising events; developing demonstration projects; and restoring wetlands, riparian areas, and [mahinga kai values](#).

### Some of Smith's other achievements include:

- Liaising with **Christchurch West Melton Water Management Zone Committee** - reporting on activities of the Avon-Ōtākaro Network and being a member of the committee's recreation working group.
- Promoting the **Community Waterways Partnership Charter**, a shared statement of intent among community groups, iwi, researchers, businesses, and local, regional and central government to work in partnership to achieve outcomes that improve the ecological health, indigenous biodiversity and the amenity value of our urban waterways in a collaborative way.
- Advocating for **wetlands to treat stormwater in Horseshoe Lake** area, to be included in the Ōtākaro Avon River Corridor Regeneration Plan.
- Organising the **Meet in the Middle** event, connecting communities along the river, and providing stalls focussing on household and community actions on stormwater.
- Instigating the **Mahinga Kai Exemplar Project** in Anzac Drive Reserve – an area of wetland and indigenous plantings that provide ecological connectivity between the Ōtākaro/Avon River and Travis Wetland – led by Ngāi Tūāhuriri and Avon-Ōtākaro Network in partnership with Christchurch City Council and the Department of Conservation.
- Establishing a **residential rain garden and rain storage exemplar** at Richmond Community Gardens.
- Coordinating the [Mother of all Clean Ups](#) – an annual event held on the eve of Mother's Day, involving volunteers who clear tonnes of rubbish from riverbanks and the estuary edge. This was adapted to the 2020 Mother of all Clean Ups - Home Edition! Which, during the COVID-19 lockdown, encouraged families to undertake an on-line audit of their property's storm water set-up and raised awareness about how this impacts our waterways.
- Submitting to Christchurch City Council on **replacement Litter Booms in the Ōtākaro** to collect the rubbish coming down from the city.
- Advocating for [602 hectares of red zone land along the Ōtākaro/Avon River to be restored](#) as a multipurpose park that promotes enhanced biodiversity, restoration of mahinga kai values and the creation of amenity and recreation for locals and visitor. In June 2020, the Christchurch City Council took over management of this land from the Crown, with plans secured to restore and protect the area.

*Pictured above: Annabelle Hasselman and Evan Smith with Smith's Stormwater Superhero Award.*

## Haytons-Paparua Stream – cleaning up the most polluted waterway in Christchurch and giving the Ōpāwaho-Heathcote River a better start in life

Audience: Written for an “engaged member of the community, like a member of the OHRN”

Compiled by: Nick Moody, Pollution Prevention Advisor, Environment Canterbury

Final version: Accepted 18<sup>th</sup> March 2019 at Christchurch City Council by CCC Surface Water Drainage Team

### **The Stream**

Haytons-Paparua Stream is an industrialised waterway located in southwest Christchurch. It’s a tributary of the Ōpāwaho-Heathcote River and enters the river at the A&P Showgrounds in Wigram. It is fed by springs, ground water, and rainfall. It is an intermittent waterway, drying out completely in some sections at some times of the year. It is supplemented by the Paparoa water race at Haytons Road, which brings clean water from the Waimakariri River to the stream.

The stream was once home to many native fishes, and known for the Salmon which swam up the Ōpāwaho-Heathcote River from the ocean to breed there. However, as the Wigram-Sockburn area has changed from farmland to become Christchurch’s largest industrial area, the stream has become degraded. Now it is poor habitat for most fish, and it is certainly not suitable for the pollution sensitive salmon.

### **Drains lead to Streams**

In this part of town the gutters and drains lead straight to the stream. Whatever pollution runs off the city generally ends up in Haytons-Paparua Stream untreated, which then has limited treatment before it enters the Ōpāwaho-Heathcote River. To have a clean green river, we need to have a clean green city.

### **The Problem - Learning from Environment Canterbury’s Past work**

At the beginning of this project in 2016 Haytons-Paparua Stream was one of the most polluted urban streams in Canterbury. Along with Curletts Stream, it makes the Ōpāwaho-Heathcote River unhealthy. It contains high levels of zinc, nitrogen, phosphorus and suspended sediment, caused by human activities. It was once the case that this pollution came from factories deliberately discharging to the stream, but hard work from Environment Canterbury, CCC and businesses has improved this.

The latest research has shown that most of the pollution is from stormwater that runs off roads, roofs and car-parks.

Environment Canterbury had a team of up to five people out there in the Haytons Catchment for 5 years. They did pollution prevention work, visiting businesses to ensure that they were not

discharging contaminants to the stream. Their major achievement was that there have been no more major spills or fish kills since their site visits. However, there were no major improvements in the everyday water quality in the stream.

We realised that it mostly wasn't deliberate discharges from the businesses, it's the pollution caused by the buildings themselves, and the vehicles.

These artificial surfaces discharge zinc from the roofs and car tyres, copper from vehicle brake pads, and road dust from the roads. The roads are the dry tributaries of the river, and this pollution occurs every time it rains. The road drains lead to the streams, and in this catchment, the drains generally carry stormwater to the stream untreated.

Whilst this is the main issue, in this stream there is also pollution from petroleum products, phosphorus and nitrogen. This also impacts on the Ōpāwaho-Heathcote River's health. This pollution is expected to decline during this 5-year period as industry continue to invest to improve the quality of stormwater leaving their sites.

### The Action Plan

This Action Plan maps out a strategy to improve the quality of the water that flows out of Haytons-Paparua Stream into the Ōpāwaho-Heathcote River.  
There are some simple interventions which can improve the water quality.

High priority actions are to reduce the level of contaminants discharged to the stormwater system and the stream, remove the contaminated sediments within the Wigram Retention Basin, and improve the fish passage within the stream and to the Ōpāwaho-Heathcote River.

### The Scope and goals

Although Haytons Stream drains an industrial catchment which is highly modified the water quality of the stream can still be improved. This is a plan to improve its water quality and reduce the impacts of the stream on the Ōpāwaho-Heathcote River.

**Primary Objective:** Concentrations of zinc, copper, suspended sediment, nitrogen, phosphorus, ammonia and *Escherichia coli* within Haytons Stream shall meet relevant receiving environment guidelines. Those parameters that are not meeting guideline levels shall record a statistically significant decrease annually.

This objective will be measured annually by assessing the water quality results from the Christchurch City Council (CCC) monthly water quality monitoring site below the Wigram Retention Basin, as detailed in the CCC annual water quality monitoring report.

**Secondary Objective:** The flow from Haytons Stream does not result in exceedances of receiving environment guidelines for zinc, copper, suspended sediment, nitrogen, phosphorus, ammonia and *E. coli* within the Ōpāwaho-Heathcote River. This will be measured through a specific monitoring programme.

**In scope:** Improve the health of the upper Ōpāwaho-Heathcote River by reducing contaminant discharges from Haytons-Paparua Stream during the period 2016-2021.

**Out of Scope:** Restore Haytons-Paparua stream itself to a fully healthy state by 2021.

## Key threats to the health of the Haytons-Paparua Stream

### ZINC AND COPPER

- Excessive zinc is toxic to aquatic life, harming insects and fishes.
- The primary source of zinc is galvanised roofs on industrial buildings. The zinc dissolves when it rains and flows with the stormwater into drains which enter the stream.
- Dissolved zinc can bind to fine particles of sediment and sinks to the bed of the stream, where it continues to be toxic.
- The sediments in the bed of Haytons-Paparua Stream and the Wigram Detention Basin (WDB) are high in zinc. This stored contaminant source will continue to pollute the Ōpāwaho-Heathcote River into the future unless it is removed.
- Copper is also a significant contaminant in this waterway. The main source is the wearing down of copper-based vehicle brake pads. It has similar eco-toxic effects to zinc but is also particularly toxic to plants and algae, which form the base of the food chain in our waterways.

### SUSPENDED SEDIMENT

**Suspended sediment in the water is an important issue due to:**

- Impacts on its visual appeal.
- Increased sediment going into the stream during construction.
- Impacts the life in the stream. Remaining species may be severely compromised, e.g. smothering the homes of native aquatic insects, fishes, and the eggs of trout and salmon.
- Because the sediment is often fine grained it stays in suspension for a long time and can also impact on the Ōpāwaho-Heathcote River and the Avon-Heathcote Estuary/Ihutai.
- Climate change may cause more severe storms, leading to increased input of sediment runoff from the catchment.

### NITROGEN AND PHOSPHORUS POLLUTION

**Haytons-Paparua Stream has high levels of nitrogen and phosphorus which go on to pollute the Ōpāwaho-Heathcote River. This is due to:**

- Industrial processes which are not well managed and contaminate stormwater entering the stream.

- Washing of trucks and vehicles at businesses using cleaning products. This discharges contaminants from the vehicles, and phosphorus from the cleaning products.
- These contaminants are linked to excessive weed growth and toxic effects on biota.

#### **URBAN DEVELOPMENT**

##### **The highly industrialised nature of Haytons catchment brings additional pressures to the stream:**

- Reduced everyday stream flows caused by hard surfaces preventing rainwater soaking into the ground and reducing spring flows.
- Increased intensity of stream flows during rain events.

##### **Positives:**

- However the Wigram Skies subdivision is a good example of urban stormwater treatment, as it has wetlands that treat stormwater.

## Action Plan Tasks

### 1. IMPROVE SITE MANAGEMENT PRACTICES TO REDUCE CONTAMINANT DISCHARGES

In 2017 an investigation of point source discharges in the upper stream was conducted. The upper stream around Waterloo Road is the stretch which studies have shown to be the most polluted. Almost all of the point source pollution detected was hydrocarbons, and these do not have high ecological impacts in small quantities. However, poor site management leads to industrial pollutants washing into the stream and there are still businesses discharging unacceptable levels of contaminants. Although pollution from the practices of individual businesses is only one part of the contamination of the stream, it is a part over which people have control. Therefore, work in this area has value.

- 1a. Industrial Site Stormwater Audits: The CCC conducts annual stormwater audits on high risk industrial sites, including sites in Haytons catchment. They require audited businesses to improve their storm water quality. These actions will reduce contributions of contaminants such as E. coli bacteria, phosphorus, BOD, copper, and suspended sediment.
- 1b. General Trade waste inspections: There are discharges of ammonia and phosphorus from truck and vehicle washing at many businesses. The CCC has done a lot of good work removing vehicle wash bay inputs from Haytons-Paparua Stream over the last few years, and this work is as ongoing part of business as usual for the CCC.
- 1c. Ecan Project Manager (PM) to analyse Haytons Stream Master's Thesis to identify discharging businesses from the 2017 sump testing programme. Programme these sites for follow up visits by the CCC Stormwater Audits team in 2019.
- 1d. Ecan PM to continue compliance work with key industrial site(s) in catchment, in partnership with CCC.
- 1e. Ecan Resource Monitoring Officers (RMOs) to invest an increased percentage of their industrial site monitoring hours in the Haytons Catchment. Ecan PM to generate a list of consents which are in the Haytons catchment for RMOs to monitor.

### 2. REDUCE ZINC AND COPPER INPUTS FROM ROADS AND ROOFS

- 2a. CCC to write to all the T.A.'s to build support for the ban of copper brake pads, and then promote phasing them out at the Local Government New Zealand meeting. Send the remit to central Government.
- 2b. Conduct more frequent road vacuuming to reduce the inputs of road dust which contain zinc and copper.



- 2g. CCC to investigate cleaning out Council owned sumps more regularly. The frequency would match that proposed in the Avon Stormwater Management Plan.
- 2c. Investigating options for stream-friendly roofing materials, and promoting these.
- 2d. Treating the water that runs off the roof to remove zinc before the water enters the stream. University of Canterbury (UC) is leading research in NZ on how to reduce pollution from zinc roofs. They have developed a prototype device to strip dissolved zinc out of roof water from Galvanised roofs. This is called a Storminator™. The performance of the Storminator™ in trials is very exciting, removing almost all of the dissolved zinc, before it reaches the stream.  
Environment Canterbury will be talking to businesses with galvanised steel roofs and offering them the opportunity to trial Storminators™ for free.
- 2e. UC will install Storminators™ at 4 sites in the catchment.
- 2f. UC will monitor the performance of these devices and communicate the results to the businesses and CCC.

With a marketing campaign more businesses will purchase these devices in the catchment, and zinc inputs to the stream will decrease. Who would run this marketing campaign, and whether any legislative tools could be employed to support this is a question that has not yet been answered.

One business already showing leadership in this space is CSP Galvanising Ltd. They have been voluntarily working with Environment Canterbury since 2016 to protect the stream at their site, and in 2019 will install a treatment system which UC has custom designed to remove dissolved zinc from their stormwater, which includes Storminators™. Once created the CSP Galvanising treatment system will be an exemplar which other businesses can visit and see a working example of stopping dissolved zinc at source. This company is also looking at installing similar devices at their other sites around New Zealand.

2g. CCC s/w engineers to investigate putting sump cleaning requirements into the district plan and investigate increasing standards in their stormwater consenting process for businesses.

2h. Contact the New Zealand Transport Association, and enquire whether they are interested in treating the stormwater runoff from Curletts Road and Main South Road.

### 3. IMPROVE EFFICIENCY OF TREATMENT DEVICES

- 3a. The CCC has made a significant investment at the Wigram Detention Basin, constructing two wetlands to remove contaminants from Haytons-Paparua Stream before it enters the Ōpāwaho-Heathcote River.
- 3b. There are many years of accumulated sediments in the bottom of the basin which are high in heavy metals. The water level in the basin has been lowered since February 2018 and now is a crucial opportunity to remove the sediments to stop this legacy contamination



continuing to pollute the Ōpāwaho-Heathcote River. There are some technical challenges to do this without tearing the basin's liner.

- 3c. One solution is to install instream sediment traps upstream of the WDB with easy digger access and empty these regularly before the sediment enters the WDB. At February 2019 this is now in the CCC's work programme. This will then require a maintenance schedule to empty these regularly.

#### **Use Wigram Detention Basin as a living laboratory**

3 f. There is a great opportunity to develop the WDB as a 'living laboratory'. It is a recently constructed large scale stormwater treatment device located on Christchurch's most contaminated little waterway. We have rich data for the performance of the WDB over the last 20 years, from the CCC's monitoring of the discharge from the outlet of the basin.

There are two wetlands being constructed downstream of the WDB 'lake'. These are designed to further improve the stormwater quality before it enters the Ōpāwaho-Heathcote River. The time that the water from a rain event is detained in the wetlands can be managed and varied. Different detention times remove different contaminants differently. Therefore, it is a place where active research can be undertaken. These wetlands can be experimented with, the results monitored, and then used to optimise the removal of pollutants.

- 3 d. Environment Canterbury is sponsoring research at UC to measure the performance of the WDB before and after the construction of the wetlands, from 2018 - 2020. These data could improve the management of the WDB, and findings from this site can be used to inform the design of other stormwater systems in Christchurch.
- 3e. UC researchers to monitor the performance of the WDB at removing contaminants from Haytons Stream. Conduct testing before and during the construction of the Nga puna wai Wetlands. Generate quarterly reports. The University of Canterbury has worked to understand the contaminants here for many years and has good data for the water quality pre-construction. This is a great opportunity for students to undertake ongoing monitoring of the performance of the wetlands at removing different types of contaminants. The detention time of the wetlands can be modified to determine which detention time removes contaminants the best.
- 3g. Remove previously accumulated sediment from the forebay of the WRB while the upgrade to the WRB is occurring.

#### **Ensure Fish Passage through Wigram Retention Basin**

- 2i. Ensure that the new WRB structures comply with the NZ Fish Passage Guidelines 2018. This is a high priority for Ngai Tuahuriri.

The new wetlands constructed at WRB should provide good habitat for freshwater fishes, especially eels. Several thousand short finned eels were salvaged from the WRB alone during the 2018 upgrade, and the wetlands will have plants, unlike the current WRB. It is important

the design of the WRB does not create a barrier to fish passage from the Heathcote River, as is the case with the current design. Fish passage should be enabled from the Heathcote River, through the WRB, and all the way upstream to Paparua Stream, which links back to the Waimakariri River upstream.

#### **Consider installing stormwater treatment devices in the catchment**

- 2h. Scope the installation of proprietary treatment devices in the catchment; working in the area between source control and big instream treatment devices. For example Stormfilter type devices and litter traps in sumps. Consider co-funded Business-Council installations.

#### **4. STREAM BED RESTORATION**

Remove contaminated sediments and restore gravels with diggers.

- The bed of the lower reaches of the stream from the confluence of the Paparua Stream to the Wigram Road bridge is covered in fine silt. This silt contains high levels of heavy metals which are toxic to aquatic life. When the stream is at high flows these are re-mobilised and are washed downstream into the WDB and on into the Ōpāwaho-Heathcote River.
- 4a. Ideally these would be removed from the stream in this long slow deep reach where they accumulate.
- The other obvious issue is that in the upper section from Waterloo Road downstream to the confluence of the Paparua water race there are no deeper pools or aquatic plants. If these reaches were returned to gravel riffles, then they would have much greater ecological value. However, the source of silts would need to be addressed, otherwise the riffles would get smothered again. Research in the neighbouring Addington Brook catchment showed that 60% of silts came from roads.
- 4b. More frequent road vacuuming before rain events by the CCC would remove more of this road dust before it could be washed into the stream.
- 4c. Riparian planting with low height plants such as *Carex secta* would also stabilise the banks of this section of the stream to reduce erosion, as well as providing ecological benefits, without completely obscuring the view of the stream. This is preferable to the current practice of spraying/razing the bankside vegetation.

#### **5. MONITORING TO IMPROVE UNDERSTANDING OF WATER QUALITY WITHIN HAYTONS-PAPARUA STREAM AND MEASURE PROGRESS**

- 5a. CCC's on-going water quality monitoring: monthly sampling and measuring of the levels of contaminants at the site downstream of the WDB. Comparing these data with previous

year's results to determine trends to support management decisions. Including these results in an annual Surface Water Quality Report.

- 5b. Environment Canterbury's fixed term water quality monitoring instream: monthly sampling and measuring levels of the known contaminants at sites upstream, and additional quarterly testing for a broad suite of contaminants including contaminants of emerging concern.

Haytons-Paparua Stream - Proposed Work Programme

Action	Responsibility	Due date	Status
<b>Environment Canterbury</b>			
2d. Storminator Trial: approach businesses identified by UC and pitch the concept of free installation and trial of the devices to remove the zinc from the stormwater off their roofs.	Ecan: Haytons Project Manager (PM)	20 December 2018	One business on track for 2019 installation so far.
1c. Analyse Haytons Stream Master’s Thesis to identify discharging businesses from the 2017 sump testing programme. Programme these sites for follow up visits by the CCC Stormwater Audits team in 2019.	Ecan: Haytons PM	20 December 2018	Not started
1e. Ecan Resource Monitoring Officers (RMOs) to invest an increased percentage of their industrial site monitoring hours in the Haytons Catchment. Ecan PM to generate a list of consents which are in the Haytons catchment for RMOs to monitor.	Ecan: Haytons PM, with support from GIS team, Regional Planning Team, RMO's, Ecan maps	15 November 2018	Overdue
1d. Continue compliance work with industrial site(s) in catchment, in partnership with CCC.	Ecan: PM & Zone Manager, CCC: Tradewaste Manager	Ongoing	On track
5b. Water quality monitoring in stream.	Ecan:	Monthly sampling	On track
3d. Sponsor monitoring and research at the Wigram Retention Basin wetlands 2018-2020.	Ecan: PM & Snr Surface Water Quality Scientist	March annually	On track
Contact NZTA on main South Rd, possible opportunities to treat stormwater off Curletts and Main South Rds			
<b>Christchurch City Council</b>			
4a. Dredge sediments from the reach downstream of the confluence of the Paparua Stream to the Wigram Road bridge.	CCC Surface Water Drainage Team	Proposed	Proposal not programmed
3c. Regularly remove contaminated sediments from Haytons stream just upstream of WRB.	CCC Land Drainage Operations Team Leader	Ongoing	Proposed
3a. Upgrade Wigram Retention Basin’s performance by creating wetlands at Nga puna wai	CCC Surface Water Drainage Team	March 2019	Behind schedule but progressing
3b. Remove contaminated sediments from Wigram Retention Basin.	CCC Surface Water Drainage Team	2018 – while basin is lowered	Delayed due to budget constraints
3f. Trial different retention times in the WRB wetlands to optimise the removal of contaminants.	CCC Surface Water Drainage Team	20 December 2020	Proposal only at present
Hold meetings for CCC surface water staff to collaborate with Ecan staff on Haytons Action Plan	CCC Surface Water Drainage Team, CCC Freshwater Ecologist, Ecan PM and CHCHWMBP Zone Manager	Ongoing	Behind schedule but progressing
3g. Remove sediment from the forebay of the WRB	CCC Surface Water Drainage Team	30 June 2019	Underway

Action	Responsibility	Due date	Status
CCC to investigate cleaning out Council owned sumps more regularly. The frequency would match that proposed in the Avon Stormwater Management Plan.	CCC Land Drainage Operations Team Leader		
1b CCC to continue annual stormwater audits of businesses in the catchment.	CCC: Tradewaste Manager	30 June 2019	On track
5a. Water quality monitoring: monthly sampling and measuring of the levels of contaminants. Comparing these data with previous year's results to determine trends to support management decisions. Including these results in an annual Surface Water Quality Report.	CCC Freshwater Ecologist	Annually on 30 June	On track
1b. General trade waste inspections: Conduct Tradewaste inspections at businesses in the catchment as part of business as usual work.	CCC Tradewaste Manager	Ongoing	On track
2b. and 4b. Conduct more frequent road vacuuming to reduce the inputs of road dust which contain zinc and copper. Particularly after long periods of dry weather.	CCC Roothing manager	1 July 2019	Proposal only currently
2c. Investigating options for stream-friendly roofing materials, and promoting these.	CCC Heathcote River Stormwater Management Planner	1 July 2020	Proposal only currently
4c. Riparian planting with low height plants alongside the lower reaches of the stream.	CCC Freshwater Ecologist	September 2019	Proposal only currently
2h. Scope the installation of proprietary treatment devices in the catchment, including litter traps in sumps.	CCC Surface Water Drainage Team	30 June 2019	Proposal only currently
2g. CCC s/w engineers to investigate putting sump cleaning requirements into the district plan and investigate increasing standards in their stormwater consenting process for businesses.			
2i. Ensure that the new WRB structures comply with the NZ Fish Passage Guidelines 2018. This is a high priority for Ngai Tuahuriri.	CCC Surface Water Drainage Team	30 June 2019	On track
<b>University of Canterbury</b>			
2e. Storminator Trial: install Storminators at 5 industrial sites in the catchment arranged by Ecan PM.	UC PHD Researcher	1 July 2019	Not started
2f. Monitor the performance of these Storminator devices and write up the results.	UC PHD Researcher	20 December 2019	Not started
3e. Monitor the performance of the WRB at removing contaminants from Haytons Stream. Conduct testing before and during the construction of the Nga puna wai Wetlands. Generate quarterly reports.	UC PHD Researcher	Reports are due quarterly	Ongoing on track

### Attachment 3: Freshwater Package Announcement 28 May 2020

The Government announced the Action for Healthy Waterways – Ngā mahi mō te whakaora wai – policy reform package on 28 May. The package consisted of a 10-page summary, links to decision documents and FAQs, and an information sheet with high-level overview of the requirements for regional councils.

Note: Final versions of the National Policy Statement (NPS-FM) and National Environmental Standards (NES) were not provided; they are still being worked on.

#### Key Points

- NPS-FM compliant plans must be notified by 2024.
  - This is an extension of 1 year from the original proposal.
- Dissolved Inorganic Nitrogen (DIN) and Dissolved Reactive Phosphorus (DRP) have not been included as ecosystem health attributes in the NPS-FM.
  - Councils still need to maintain or improve DIN at current levels during this period.
  - Nitrate (the major part of DIN) toxicity national bottom line has been raised (i.e. moved from 6.8 mg/L to 2.4 mg/L).
- 3m setback distance for stock from rivers and streams (>1m wide).
  - The original proposal was for an average of 5m.
- New cap on synthetic fertiliser application for pastoral farms (190kg/ha/yr). Dairy farms required to report application rates annually. Application rates to be reviewed by 2023.
- Final versions of NPS-FM and NES are to be released later this year. Detailed guidance is being developed in consultation with regional council representatives and will be provided as the new regulations are gazetted, expected in mid-2020.

#### Background

- In 2019, central government released its 'Action for Healthy Waterways' discussion document which forms part of central government's broader 'Essential Freshwater' programme. The discussion document set out proposals to halt further degradation of New Zealand's freshwater resources and to restore them to a health state. It included:
  - proposed changes to the NPS-FM,
  - a new NES for fresh water, and
  - new stock exclusion Regulations.
- Environment Canterbury supported the intent in its submission on the proposals but identified key areas that would be challenging to implement and where further work was requested including new attributes (DIN, DRP, turbidity), timeframes for planning, and clarification on FEP auditing.
- More than 17,500 submissions were received. In the light of COVID-19, the Government has made changes to what was proposed. Detailed guidance is being developed in consultation with regional council representatives and is expected in mid-2020.



- Also, due to COVID -19, Environment Canterbury, as part of the Mayoral Forum, sent a letter to Ministers Parker and O'Connor stressing that while some aspects of the proposals could be progressed relatively easily (NES, stock exclusion regulations), aspects of the proposed NPS-FM could hamper the ability for the agricultural sector to lead the regional and national economic recovery. It was requested that these aspects be reconsidered and/or delayed.

#### **Summary of Announced Package**

The following bullets are drawn from the summary document including the information provided for regional councils. Further analysis on the implications for Environment Canterbury's key functions will be provided to council at upcoming meetings. The key parts of the package are:

#### **National Policy Statement for Freshwater Management (NPS-FM)**

- Te Mana o te Wai is maintained as a fundamental principle of the NPS-FM framework.
- NPS-FM plans are to be notified by 2024. This is an extension of 1 year from the original proposal. Councils must notify plans by 31 December 2024 and make final decisions within two years of notification.
- The nitrate toxicity attribute has been tightened from protection of 80% to 95% of species (2.4mg/L, was 6.8 mg/L).
  - This will require changes to some Canterbury plans
- Dissolved Inorganic Nitrogen (DIN) – A 12-month delay in including DIN as an attribute to allow for further consideration of the national bottom line by the Science and Technical Advisory Group (STAG).
  - Councils still need to maintain or improve DIN at current levels during this period.
- As with DIN, there is no Dissolved Reactive Phosphorus (DRP) national bottom line but requirement to maintain at current levels while further work is undertaken.
- Freshwater hearing panels will be used to oversee freshwater plan development.

#### **Stock Exclusion**

- There is no need to move existing fences where they are already in place.
- 3m setback distance for stock from rivers and streams (>1m wide).
  - The original proposal was for an average of 5m.
- Some stock exclusion requirements are to be managed through farm plans rather than through the regulations.

#### **National Environment Standard for Freshwater**

- Interim intensification restrictions apply until 2024 or until councils have NPS-FM compliant plans.
  - Consents required for change to dairying, increase in irrigated area, change from forestry to pastoral farms

- Unclear as to whether this would apply to Canterbury. Draft NES provided an exemption for councils with plans developed under current NPS-FM.
- New cap on synthetic fertiliser application for pastoral farms (190kg/ha/yr). Dairy farms required to report application rates annually. Application rates to be reviewed by 2023.
  - Councils are expected to set up systems to receive and monitor levels of synthetic nitrogen fertiliser use reported by dairy farms (by 2020/21), and assess consent applications for fertiliser use above a new cap of 190 kg N/ha/year.
  - Canterbury rules on Good Management Practice are that only enough fertiliser is used to meet plant growth needs. We have not analysed the new cap, but general feeling is that there would be very few pastoral farms applying more than 190 kg N/ha/yr.

#### **Farm Plans**

- Changes to RMA will be introduced such that farm plans will be mandatory and enforceable (pastoral and arable farms >20ha, horticultural >5ha).
  - For Environment Canterbury, based on proposed thresholds, this will capture more farmers than under the LWRP as it is not dependent on irrigation and/or winter grazing but simply property size. This will have implications for compliance. We believe we are still well placed in this area.

#### **Winter Grazing of forage crops**

- From 1 May 2021, resource consents are required for intensive winter grazing that does not meet the permitted activity standards related to separation from rivers and contaminant losses.
  - Environment Canterbury currently uses winter grazing as trigger for Farming Land Use Consents. The above provisions would likely require a separate consent however we may be able to link this requirement with the current audited FEP approach to management.

#### **Water measurement and reporting**

- All consent holders over 5L/s will be required to have digital flow meters and telemetry systems in place so that real time data on water abstraction are available to Council. These new requirements will be phased in over 6 years with abstractions over 20L/s first to meet the new requirements in 2022.
  - Majority of Canterbury water users already have this in place; new rule will make it easier to change "laggards".

#### **Attachment 4: Groundwater quality QA, April 2020**

##### **How many wells does Environment Canterbury monitor?**

- In 2019 we sampled 328 wells during the spring months of September to December.
- Of those, 125 were also sampled quarterly throughout the year, and those are the wells included in the new LAWA groundwater quality topic.
- The 125 wells that ECan samples quarterly are the shallower wells that are most vulnerable to contamination from the land surface, so their results are biased toward higher contaminant concentrations.
- We sample them quarterly because, being shallower, they are also the wells most likely to show seasonal changes in groundwater quality.

##### **What type of wells are monitored?**

- The wells are a mixture of private domestic wells, irrigation wells, community water supply wells, wells for industrial supply, and purpose-built monitoring wells owned by ECan.

##### **How are the wells selected?**

- The wells are selected based on their locations and depths. The aim is to provide a roughly representative sample of the wells used for water supply in Canterbury.

##### **How many wells are used for private or community drinking-water supply?**

- Annual survey: Of the 328 wells sampled, 155 are used for private domestic supply and 19 are community water supply wells.
- LAWA: Of the 125 wells included, 54 are used for private domestic supply and 4 are community water supply wells.

##### **Did any private drinking-water supplies have nitrate or *E. coli* above the MAV?**

- Annual survey:
  - *E. coli* was detected in 11 private domestic wells and no community water supply wells in the 2019 survey.
  - The nitrate nitrogen concentration exceeded the MAV in the samples from 11 private domestic wells and no community water supply wells in the 2019 survey.
- LAWA:
  - 38 private domestic wells and 2 community water supply wells had at least one *E. coli* detection in the period 2014-2018.
  - 54 private domestic wells and 4 community water supply wells had nitrate nitrogen concentration exceeding the MAV on at least one sample in the period 2014-2018.
- All well owners are notified of any results that exceed drinking water standards.

##### **Does ECan monitor drinking water?**

- No. We monitor raw groundwater before any filters or treatment.

##### **Who is responsible for testing drinking water?**

- Private well owners are responsible for testing their water and ensuring that it is safe to drink. Community water supplies are tested regularly by the supply owner (usually the local council).

##### **Why are there differences in the results between LAWA and ECan's Annual Groundwater Quality Survey?**

- The results are broadly similar, but there are some differences because our annual survey is conducted annually, whereas LAWA reports quarterly data.

**Why are the nitrate risk maps only updated every two years?**

- The maps represent the risk that nitrate concentrations in groundwater could exceed the drinking water standard. This risk changes very slowly, and a two-yearly review is frequent enough to detect any changes.

**Why is there no data for Banks Peninsula?**

- Groundwater use on Banks Peninsula is very limited, so ECan does not monitor groundwater quality there.

**Are the results what we expected?**

- Yes, the results are in line with previous surveys and reports. Groundwater quality changes slowly, and we don't expect to see clear improvements for another 15 to 20 years.

**How many wells had *E. coli* detections?**

- Annual groundwater quality survey: *E. coli* was detected in the samples from 20 out of 328 wells sampled in the spring of 2019.
- LAWA: *E. coli* has been detected in at least one sample over the past five years in 86 out of 125 wells. Note that the 125 wells that we sample quarterly are the shallower wells that are most vulnerable to contamination from the land surface, so their results are biased toward higher contaminant concentrations.

**How many wells had nitrate nitrogen concentrations above the MAV (11.3 mg/L)?**

- Annual groundwater quality survey: Nitrate-nitrogen exceeded the MAV in the samples from 30 out of 328 wells sampled in the spring of 2019.
- LAWA: Nitrate nitrogen has exceeded the MAV in at least one sample over the past five years in 45 out of 125 wells. Note that the 125 wells that we sample quarterly are the shallower wells that are most vulnerable to contamination from the land surface, so their results are biased toward higher contaminant concentrations.

**Why do shallower wells show higher contaminant concentrations?**

- In general, at any given location, the highest contaminant concentrations are found in the shallowest wells, near the water table.
- This is the first point where contaminants from the ground surface reach the aquifer, and concentrations have not been diluted by mixing with deeper groundwater.
- Concentration is not solely related to depth. Groundwater source and flow paths are also important, as are proximity to contaminant sources.
- In some locations, we see quite low concentrations at shallow depths, close to the water table, while at other locations, we see high concentrations persisting to considerable depths.