

Agenda 2023

Water and Land Committee

Date: Wednesday, 29 November 2023
Time: 10.30AM
Venue: Council Chamber
Environment Canterbury
200 Tuam Street, Christchurch



Water and Land Committee

Membership

Committee Chair: Councillor Iaeen Cranwell

Committee Deputy Chair: Councillor Claire McKay

Committee Members:

- Councillor Greg Byrnes
- Councillor Joe Davies
- Councillor Paul Dietsche
- Councillor David East
- Councillor Grant Edge
- Councillor Tutehounuku Korako
- Councillor Ian Mackenzie
- Councillor Craig Pauling
- Councillor Genevieve Robinson
- Councillor Peter Scott
- Councillor Vicky Southworth
- Councillor John Sunckell
- Councillor Deon Swiggs
- Councillor Nick Ward

WATER AND LAND COMMITTEE

TERMS OF REFERENCE

Version 2.0 Adopted by Council 22 March 2023

REPORTING TO:	Council
MEMBERSHIP:	All members of Council
QUORUM:	Eight (8)
MEETING FREQUENCY:	Six meetings per annum
CHAIR:	One Chair One Deputy Chair

A. PURPOSE

1. Oversee the development, implementation, and review of Christchurch Regional Council's (the Council) Environmental strategies (including the Canterbury Water Management Strategy), policies, plans, programmes, and initiatives to address environmental issues in the region (including issues in the area of land management, regional natural resources, fresh water, and coastal marine environment);
2. Oversee the Council's compliance with its statutory functions, including functions under the Resource Management Act 1991, and all the Council's bylaws; and
3. Work in the spirit of genuine partnership and assist the Council in fulfilling its duties as a partner with Ngāi Tahu and in alignment with the principles contained within the Tuia Agreement. In particular, the Committee will support effective partnerships with Papatipu Rūnanga, recognise the relevance of Te Ao Māori and affirm the importance of an enduring and collaborative relationship between the Council and Ngāi Tahu Papatipu Rūnanga.

B. SPECIFIC RESPONSIBILITIES

4. To consider emerging environmental issues relating to environmental and regulatory monitoring and performance matters and to provide advice on the implications for effective resource management within the region.
5. Receive information on the state of the environment monitoring trends and to direct the use of this information to inform policy and plan review.
6. Receive regular monitoring reports and presentations on the matters set out in the Purpose.

- a) Oversee the development and review of the Council's Environmental strategies, policies, plans, programmes and initiatives, and regional resilience programmes and priorities;
 - b) Prepare any variation to proposed regional plans or plan changes, including making recommendations to the Council on the proposed plans, proposed variations and proposed plan changes that should proceed to public notification;
 - c) Oversee consultation under Schedule 1 to the Resource Management Act 1991;
- 7. Consider regional, national, and international developments; emerging issues and impacts; and changes in legislative frameworks for their implications for the Council's
 - a) Environmental strategies, policies, plans, programmes, and initiatives; and
 - b) Regulatory systems, processes, and tools.
- 8. Ensure that the Committee's decision making:
 - a) Considers climate-change related risks; and
 - b) Is consistent with the Council's plans and initiatives to give effect to the Council's declaration of a climate emergency on 16 May 2019.

C. DELEGATIONS

- 9. Subject to other clauses within these Terms of Reference, the Council delegates to the Committee all the powers, functions, and duties necessary to perform the Committee's responsibilities, except the powers that the Council cannot lawfully delegate, including those under clause 32(1) of Schedule 7 of the Local Government Act 2002.
- 10. The Committee may make decisions on matters with a financial impact only where the related costs are budgeted for within a current, adopted Long-Term Plan or Annual Plan, otherwise the matter must be referred to the Council for decision.
- 11. The Committee may not make a decision that is materially inconsistent with the Council's Long-Term Plan or Annual Plan.
- 13. If all Councillors of the Council are appointed to the Committee, then the Committee can change any part of its own Terms of Reference.
- 14. Only Councillors of the Council may vote on a change to the Committee's Terms of Reference.

Document history and version control

Version	Date approved	Approved by	Brief description
1.0	14 December 2022	Council	New Committee Terms of Reference.
2.0	22 March 2023	Council	Updated to remove reference to operational matters Updated delegation wording and added ability to update own Terms of Reference.

Water and Land Committee

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1. Karakia/Mihi Timatanga - Opening

The meeting will be opened with a karakia, followed by a member of the Water and Land Committee with mihi whakatau.

2. Apologies

At the time the agenda closed there were no apologies received.

3. Conflicts of Interest

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

4. Public Forum, Deputations, and Petitions

There were no requests for public forum, deputations, and petitions at the time the agenda was prepared.

5. Extraordinary and Urgent Business

The Chairperson will give notice of items requiring urgent attention not on the agenda as follows.

Matters Requiring Urgent Attention as Determined by Resolution of the Water and Land Committee:

A meeting may deal with an item of business that is not on the agenda where the meeting resolves to deal with that item and the Chairperson provides the following information during the public part of the meeting:

1. The reason why the item is not on the agenda; and
2. The reason why discussion of the item cannot be delayed until a subsequent meeting.

Items not on the agenda may be brought before the meeting through a report from either the chief executive or the Chairperson.

The item may be allowed onto the agenda by resolution of the Water and Land Committee.

Minor Matters relating to the General Business of the Water and Land Committee:

A meeting may discuss an item that is not on the agenda only if it is a minor matter relating to the general business of the meeting and Chairperson explains at the beginning of the public part of the meeting that the item will be discussed. The meeting may not make a resolution, decision or recommendation about the item, except to refer it to a subsequent meeting for further discussion.

6. Notices of Motion

At the time the agenda closed there were no notices of motion received.

7. Minutes

7.1. Unconfirmed Minutes - Water and Land Committee - 18 October 2023

Water and Land Committee

Date of meeting	Wednesday, 29 November 2023
Author	Oliver Neal, Committee Advisor
Endorsed by	Petrea Downey, Team Leader Governance

Purpose

1. The previously circulated minutes from the Water and Land Committee meeting held on 18 October 2023 are to be confirmed.

Recommendations

That the Water and Land Committee:

1. **Confirms the minutes from the Water and Land Committee meeting held on 18 October 2023.**

Attachments

1. 2023-10-18 UNCONFIRMED Water and Land Committee Minutes 18 October 2023 [7.1.1 - 7 pages]

Minutes of the Water and Land Committee, held at Environment Canterbury, Council Chamber, 200 Tuam Street, Christchurch on Wednesday, 18 October 2023 at 10.30am.

Present

Committee Chair Iaeen Cranwell*, Committee Deputy Chair Claire McKay, Chair Peter Scott and Councillors Greg Byrnes, Joe Davies, Paul Dietsche*, David East, Tutehounuku Korako*, Ian Mackenzie, Craig Pauling, Genevieve Robinson, Chair Peter Scott, Vicky Southworth, John Sunckell, Deon Swiggs, and Nick Ward.

*via audio/visual link

Cr Southworth joined the meeting at 10.30am during the Karakia.

Cr Korako joined the meeting at 10.33am during the acknowledgment.

1. Karakia/Mihi Timatanga - Opening

Cr Pauling opened the meeting with a karakia and a mihi whakatau.

The Committee acknowledged the passing of Rosemary (Roe) Acland of Mount Peel Station, who formed and chaired the Upper Rangitata Gorge Land Care Group in 1999, with the intent to control broom and the rabbit population, and preserve the historic resources of the Upper Rangitata, such as the Mount Harper Ice Rink and various huts through the area. A highlight of her time with the group was winning the Weedbusters Supreme Canterbury Award for overall excellence and work on private land in 2010. She will be sorely missed by the Rangitata Gorge Community as she was a strong and forthright leader for South Canterbury.

2. Apologies

An apology for absence was received from Cr Grant Edge.

3. Conflicts of Interest

There were no conflicts of interest reported.

4. Public Forum, Deputations, and Petitions

There were no requests for public forum, deputations, and petitions.

5. Extraordinary and Urgent Business

There was no extraordinary or urgent business.

6. Notices of Motion

There were no notices of motion.

7. Minutes

Refer to pages 9 to 17 of the agenda.

7.1 Unconfirmed Minutes - Water and Land Committee- 30 August 2023

Refer to pages 9 to 17 of the agenda.

Resolved WLC/2023/32

Staff recommendations adopted without change.

That the Water and Land Committee:

1. Confirms the minutes from the Water and Land Committee meeting held on 30 August 2023.

Cr Southworth/Cr Ward
CARRIED

8. Report Items

Refer to pages 18 to 55 of the agenda.

8.1 Water and Land Committee Resolutions Status Report - October 2023

Refer to pages 18 to 24 of the agenda.

Staff provided visibility on the status of resolutions made by the Water and Land Committee.

Resolved WLC/2023/33

Staff recommendations adopted without change.

That the Water and Land Committee:

1. Notes the status of previous resolutions provided in the Water and Land Committee Resolutions Status Report October 2023.

Chair Scott/Cr East
CARRIED

Cr Byrnes left the meeting at 11.22am during questions of clarification on agenda item 8.2 and returned at 11.39am during discussion on the motion for agenda item 8.2.

Cr East left the meeting at 11.40am and returned at 11.43am during discussion on the motion for agenda item 8.2.

The meeting adjourned at 11.44am and reconvened at 11.46am.

Cr Davies left the meeting at 11.44am and returned at 11.47am during discussion on the motion for agenda item 8.2.

8.2 Soil Quality Monitoring

Refer to pages 25 to 30 of the agenda.

Staff provided the Committee with an overview of the soil quality monitoring programme carried out within Canterbury/Waitaha. A presentation was given to the Committee for this item and is attached as Attachment 8.2.1.

Secretarial note: The Committee requested that staff investigate the feasibility of a monitoring programme for pesticides into receiving environments (e.g., groundwater), and provide an update at the next meeting of the Committee.

Staff recommendation:

1. Notes the report on the Canterbury soil quality monitoring programme carried out as part of the Environment Canterbury State of the Environment monitoring.
2. Notes that the review of the soil quality monitoring programme carried out in 2019 fulfils a target in level of service 2.3 in the 2021-31 Long Term Plan.
3. Recommends that staff continue to work on the soil quality monitoring programme, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis.

Cr Swiggs/Cr Sunckell

During discussion on the motion, an amendment was moved by Cr Mackenzie and seconded by Cr East to reword the third part of the recommendation as follows:

3. Recommends that staff continue to work on the soil quality monitoring programme in the interim, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis, until this expenditure can be reviewed in the Long-Term Plan.

Cr Mackenzie/Cr East

The motion was considered by way of division and declared lost by 9 votes to 5 votes, the voting being as follows:

For: Committee Deputy Chair Claire McKay, Chair Peter Scott, Cr David East, Cr Ian Mackenzie, and Cr Nick Ward.

Against: Cr Greg Byrnes, Cr Joe Davies, Cr Paul Dietsche, Cr Tutehounuku Korako, Deputy Chair Craig Pauling, Cr Genevieve Robinson, Cr Vicky Southworth, Cr John Sunckell, and Cr Deon Swiggs.

Resolved WLC/2023/34

Staff recommendations adopted without change.

That the Water and Land Committee:

1. Notes the report on the Canterbury soil quality monitoring programme carried out as part of the Environment Canterbury State of the Environment monitoring.
2. Notes that the review of the soil quality monitoring programme carried out in 2019 fulfils a target in level of service 2.3 in the 2021-31 Long Term Plan.
3. Recommends that staff continue to work on the soil quality monitoring programme, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis.

Cr Swiggs/Cr Sunckell
CARRIED

Councillors East, Mackenzie and Ward requested that their votes against the motion be recorded.

Cr Robinson left the meeting at 12.02pm before the presentation on agenda item 8.3 and returned at 12.06pm during questions of clarification on agenda item 8.3.

Cr Swiggs left the meeting at 12.03pm during the presentation on agenda item 8.3 and returned at 12.09pm during questions of clarification on agenda item 8.3.

8.3 Update on Contact Recreational Monitoring Programme

Refer to pages 31 to 39 of the agenda.

Staff provided an update on the contact recreation gradings to apply in the upcoming summer and provided assurance that contact recreation is being monitored in Canterbury.

Resolved WLC/2023/35

An updated staff recommendation was adopted without change.

That the Water and Land Committee:

1. Receives this update on the Contact Recreation Monitoring Programme, including grades for sites, based on the past five years of data.
2. Recommends that staff will continue to execute the next steps outlined in this paper, chiefly:
 - 2.1. Monitor contact recreation sites across Canterbury and share results of the monitoring on the LAWA website.
 - 2.2. Work over the summer to identify the sources of faecal pollution within the region and to inform the community of the increased risk at identified swimming sites.
 - 2.3. Develop a model with key partners to inform the predicted risk of poor water quality at sites in Lyttelton/Whakaraupō and Akaroa harbours.
 - 2.4. Work with the Christchurch City Council, landowners, Papatipu Rūnanga and Te Whatu Ora to identify and remedy sources of human faecal pollution in harbours and rivers.

Cr Pauling/Cr East
CARRIED

The meeting adjourned at 12.26pm and reconvened at 1.03pm.

Cr Dietsche joined the meeting at 1.07pm during questions of clarification on agenda item 8.4.

Cr Korako joined the meeting at 1.22pm during questions of clarification on agenda item 8.4.

8.4 Update on implementation of Essential Freshwater Regulations

Refer to pages 40 to 48 of the agenda.

Staff provided an update to the Committee on the implementation of national regulations regarding synthetic nitrogen fertiliser use (N-Cap), Intensive Winter Grazing (IWG), and freshwater farm planning (FW-FP)

Resolved WLC/2023/36

Staff recommendations adopted without change.

That the Water and Land Committee:

1. Receives this update on the implementation of the Essential Freshwater Regulations including:
 - 1.1 Use of synthetic nitrogen fertiliser (N-Cap)
 - 1.2 Intensive Winter Grazing (IWG)
 - 1.3 Freshwater Farm Plans (FW-FP)
2. Notes that, pending formal inclusion in the Order in Council, the Freshwater Farm Plan regulations will take effect in Canterbury from 1 July 2025.
3. Notes that work to implement the Essential Freshwater Regulations was agreed to in the Long-Term Plan Te Pae Tawhiti 2021-31 and that any subsequent changes may require community consultation under the Canterbury Regional Council's Engagement, Significance and Māori Participation Policy.
4. Recommends that staff continue to work on implementation of the Essential Freshwater Regulations, noting that progress updates will be provided to Council or an appropriate Committee of Council on an ongoing basis.

Cr Pauling/Cr Southworth
CARRIED

Committee Chair Cranwell joined the meeting at 1.30pm during questions of clarification on agenda item 8.5.

Chair Scott joined the meeting at 1.33pm during questions of clarification on agenda item 8.5.

8.5 Zone Priority Project Update 2022/23

Refer to pages 49 to 55 of the agenda.

Staff provided an update on the work delivered through the Zone Delivery Priority Projects workstream.

Resolved WLC/2023/37

Staff recommendations adopted without change.

That the Water and Land Committee:

1. Receives this progress update on Zone Delivery Priority Projects for 2022/23 and the outlook for this current financial year 2023/24.
2. Recommends that staff continue to work on the Zone Delivery programme, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis.

Cr Pauling/Cr Sunckell
CARRIED

9. Next Meeting

The next meeting will be held on 29 November 2023.

10. Karakia Whakamutunga - Closing

Cr Pauling closed the meeting with a karakia.

The meeting concluded at 1.44pm.

CONFIRMED 29 NOVEMBER 2023

Chair Iaeen Cranwell
Councillor, Environment Canterbury

8. Report Items

8.1. Water and Land Committee Resolutions Status Report - November 2023

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Oliver Neal, Committee Advisor
Responsible Director	Dr Tim Davie, Director of Science

Purpose

1. To provide visibility on the status of resolutions made by Water and Land Committee.

Recommendations

That the Water and Land Committee:

1. **Notes the status of previous resolutions provided in the Water and Land Committee Resolutions Status Report November 2023.**

Status Reporting

2. The status of resolutions is reported at each ordinary Water and Land Committee meeting. The report includes all resolutions from the previous meeting plus any incomplete actions from prior meetings. Comments and progress updates on incomplete actions are provided where applicable.

Cost, Compliance, and Communication

Financial Implications

3. The report was compiled using existing staff resources, therefore there were no additional financial implications.

Risk Assessment and Legal Compliance

4. This gives visibility to the Committee of matters outstanding to ensure appropriate actions have been taken as resolved.

Engagement, Significance and Māori Participation

5. Not applicable.

Consistency With Council Policy

6. Under Environment Canterbury Standing Orders 28.3 discussion of minutes is limited to their correctness. This report allows members to be updated on the status of resolutions and to monitor progress.

Climate Change Impacts

7. Not applicable.

Communication

8. Not applicable.

Next steps

9. An updated report will be provided to the 13 March 2024 meeting of the Water and Land Committee.

Attachments

1. Water and Land Committee Resolutions Status Report Last Meeting November 2023 [8.1.1 - 3 pages]
2. Water and Land Committee Resolutions Status Report Outstanding and In Progress November 2023 [8.1.2 - 2 pages]

Water and Land Committee Resolutions Status Report – Last Meeting (18 October 2023) – For November 2023

Meeting Name	Report	Resolution Number	Resolution	Status
Water and Land Committee 2023-10-18	7.1 Unconfirmed Minutes – Water and Land Committee – 30 August 2023	WLC/2023/032	That the Water and Land Committee: 1. Confirms the minutes from the Water and Land Committee meeting held on 30 August 2023.	Complete
Water and Land Committee 2023-10-18	8.1 Water and Land Committee Resolutions Status Report – October 2023	WLC/2023/033	That the Water and Land Committee: 1. Notes the status of previous resolutions provided in the Water and Land Committee Resolutions Status Report October 2023	Complete
Water and Land Committee 2023-10-18	8.2 Soil Quality Monitoring	WLC/2023/034	That the Water and Land Committee: 1. Notes the report on the Canterbury soil quality monitoring programme carried out as part of the Environment Canterbury State of the Environment monitoring. 2. Notes that the review of the soil quality monitoring programme carried out in 2019 fulfils a target in Level of Service 2.3 in the 2021-31 Long-Term Plan. 3. Recommends that staff continue to work on the soil quality monitoring programme, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis.	Complete
Water and Land Committee 2023-10-18	8.3 Update on Contact Recreational Monitoring Programme	WLC/2023/035	That the Water and Land Committee: 1. Receives this update on the Contact Recreation Monitoring Programme, including grades for sites, based on the past five years of data.	Complete

Meeting Name	Report	Resolution Number	Resolution	Status
			<p>2. Recommends that staff will continue to execute the next steps outlined in this paper, chiefly:</p> <p>2.1 Monitor contact recreation sites across Canterbury and share results of the monitoring on the LAWA website.</p> <p>2.2 Work over the summer to identify the sources of faecal pollution within the region and to inform the community of the increased risk at identified swimming sites.</p> <p>2.3 Develop a model with key partners to inform the predicted risk of poor water quality at sites in Lyttelton/Whakaraupō and Akaroa harbours.</p> <p>2.4 Work with the Christchurch City Council, landowners, Papatipu Rūnanga and Te Whatu Ora to identify and remedy sources of human faecal pollution in harbours and rivers.</p>	
Water and Land Committee 2023-10-18	8.4 Update on Implementation of Essential Freshwater Regulations	WLC/2023/036	<p>That the Water and Land Committee:</p> <p>1. Receives this update on the implementation of the Essential Freshwater Regulations including:</p> <p>1.1 Use of synthetic nitrogen fertilizer (N-Cap)</p> <p>1.2 Intensive Winter Grazing (IWG)</p> <p>1.3 Freshwater Farm Plans (FW-FP)</p> <p>2. Notes that, pending formal inclusion in the Order in Council, the Freshwater Farm Plan regulations will take effect in Canterbury from 1 July 2025.</p>	Complete

Meeting Name	Report	Resolution Number	Resolution	Status
			<p>3. Notes that work to implement the Essential Freshwater Regulations was agreed to in the Long-Term Plan Te Pae Tawhiti 2021-31 and that any subsequent changes may require community consultation under the Canterbury Regional Council's Engagement, Significance and Māori Participation Policy.</p> <p>4. Recommends that staff continue to work on implementations of the Essential Freshwater Regulations, noting that progress updates will be provided to Council or an appropriate Committee of Council on an ongoing basis.</p>	
Water and Land Committee 2023-10-18	8.5 Zone Priority Project Update 2022/23	WLC/2023/037	<p>That the Water and Land Committee:</p> <ol style="list-style-type: none"> 1. Receives this progress update on Zone Delivery Priority Projects for 2022/23 and the outlook for this current financial year 2023/24. 2. Recommends that staff continue to work on the Zone Delivery programme, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis. 	Complete

Water and Land Committee Resolutions Status Report – Outstanding and In Progress August 2023

Meeting Name	Report	Resolution Number	Resolution	Status
Water and Land Committee 2023-02-22	8.2 Drinking Water Nitrate Testing – Response to Notice of Motion 18 August 2022	WLC/2023/003	That the Water and Land Committee: 1. Approves option 2, with staff from Environment Canterbury conducting an information campaign, without water testing events, to promote awareness among private well owners about their responsibilities for their drinking-water supplies, and the potential risks to those supplies from contaminants. 2. Request staff from Environment Canterbury to invite territorial authorities, Te Mana Ora and zone committees to work with Environment Canterbury in an investigation into running private well water testing events following on from an information campaign.	Complete – campaign ended 25 August 2023
				In Progress – currently with the Communications and Engagement team
Water and Land Committee 2023-08-30	8.3 CWMS Fish Screen Working Group – final report	WLC/2023/027	That the Water and Land Committee: 1. Receives an update on the Canterbury Water Management Strategy (CWMS) Regional Committee's Fish Screen Working Group's (FSWG) recent work. 2. Discharges the Fish Screen Working Group. 3. Requests Environment Canterbury staff assess the opportunities and needs associated with a programme of work relating to fish screen facilities including the opportunities for the contribution of an external group and will provide an update to the Water and Land Committee at its 29 November 2023 meeting.	#1-2 Complete
				#3 In Progress – report going to the 29 November 2023 meeting

Meeting Name	Report	Resolution Number	Resolution	Status
Water and Land Committee 2023-08-30	8.5 Ōtūwharekai/Ashburton Lakes Lessons-Learnt Report	WLC/2023/030	<p>That the Water and Land Committee:</p> <ol style="list-style-type: none"> 1. Receives the Ōtūwharekai/Ashburton Lakes Lessons-learnt report prepared by Ministry for the Environment (MfE) as per attachment 8.5.1. 2. Notes the next steps for improving lake outcomes in Ōtūwharekai. <ol style="list-style-type: none"> 2.1. Environment Canterbury will continue to work to ensure all landholders in the catchment have appropriate authorisations in place to manage the adverse effects on the lakes from their activities. 2.2. Supporting the Ōtūwharekai Working Group and its ongoing work, with a short-term focus on getting external expertise to guide the group through the development of an integrated management plan for Ōtūwharekai. 2.3. Environment Canterbury continues to work with LINZ and other statutory agencies to align work in the catchment. 3. Requests the Ōtūwharekai Working Group investigate the consideration of assessing the impact of land-use activity on the outstanding natural landscape values in accordance with the Regional Policy Statement and with reference to the NPS Freshwater Management 2020 Appendix 1B (Natural Form and Character). 	Complete - Ōtūwharekai Working Group has been informed of the request and will take this into account as they work to develop Integrated Catchment Management Plans for the Ōtūwharekai Lakes

8.2. Fish Screens Facilities Programme Including Role of an Advisory Group

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Mel Renganathan, Principal Strategy Advisor Water
Responsible Director	Dr Tim Davie, Director of Science

Purpose

1. This report responds to a resolution made at the Committee's 30 August 2023 meeting that staff bring a report to the 29 November Water and Land Committee meeting *"assessing opportunities and needs associated with a programme of work relating to fish screen facilities including the opportunities for the contribution of an external group"*.
2. The purpose of this report is to provide an update on the initial assessment of what a work programme could include.

Recommendations

That the Water and Land Committee:

1. **Receives this report on a proposed Fish Screen Facility Work Programme.**
2. **Notes that this work sits within the wider context of Environment Canterbury's compliance work under Environmental Regulation and Protection Core Service.**

Key points

3. Environment Canterbury's Land and Water Regional Plan (LWRP) sets out the requirement for fish screens in association with surface water takes. The fish screen or fish screen facility is required to protect native fish, as well as sports fish (trout and salmon), by keeping them out of water takes, and their networks, and returning the fish to the river as quickly and as safely as possible.
4. The Fish Screen Working Group (FSWG) was reconstituted under the Canterbury Water Management Strategy (CWMS) Regional Committee in 2018 following Irrigation NZ's request for guidance on improving fish screen facilities at water intakes to be effective and compliant. The FSWG members included the Department of Conservation, NIWA, Fish and Game Councils and Irrigation NZ. It was then discharged at the Water and Land Committee on 30 August 2023 after presenting its final progress report to the Committee.
5. The FSWG report supported the need for a resourced Environment Canterbury FSF work programme and identified pieces of work that could be undertaken by a cross-functional technical advisory group (including mana whenua representatives) to support an Environment Canterbury programme.

6. An initial analysis of tasks for an Environment Canterbury programme has identified three key areas of work:
 - Policy review and update
 - Compliance, Monitoring and Enforcement (CME) – including the processes and systems to enable compliance, monitoring of FSF consent conditions
 - Administering a Technical Advisory Group
7. This area of work sits within the Environmental Regulation and Protection core service, encompassing tasks around provision of authorisation and ensuring compliance with those authorisations.

Background

Purpose of Fish Screen Facilities

8. Fish Screen Facilities have been used in New Zealand since the 1980s (as a requirement of the Freshwater Fisheries Regulations 1983). From the mid-1990s fish screen facilities were required as part of some resource consents under the previous Natural Resources Regional Plan and currently under the Canterbury Land and Water Regional Plan.
9. The requirement for fish screen facilities is specified as a consent condition within most surface water take consents. Fish screen facilities should be designed to protect native fish, as well as exotics, by keeping them out of water intakes and networks.
10. Ineffective and/or poorly built fish screen facilities increase the risk of damage to fish populations which are already at risk due to other environmental impacts¹.
11. The Fish Screen Working Group (FSWG) recently completed a project on fish screen requirements which provided solutions and guidance on existing fish screens and improved knowledge of fish behaviour at intakes. Details can be found on the [INZ webpage](#).²
12. The FSWG recommended further work to ensure the installation of effective and compliant fish screen facilities, including:
 - ensuring uptake of report findings
 - policy guidance and technical knowledge to support installing effective and compliant fish screen facilities through the regulatory process
 - further refinement of the Fish Screen Facility Guidance Tool
 - incorporation of mana whenua values and role of Ngāi Tahu
 - role of industry to lead development of fish screen design, build and installation to meet compliance.

¹ [Recent fish surveys](https://www.ecan.govt.nz/get-involved/news-and-events/2023/new-reports-paint-picture-of-declining-fish-populations-in-canterbury-rivers/) (<https://www.ecan.govt.nz/get-involved/news-and-events/2023/new-reports-paint-picture-of-declining-fish-populations-in-canterbury-rivers/>) by Environment Canterbury document ongoing decline of fish populations in the Rakaia, Rangitata and Hakatere/Ashburton rivers. These changes are likely to be symptomatic of changes to environments where these migratory fish live. As these species spend their time between ocean and freshwater environments, returning to rivers to spawn, there are a range of factors that can affect their success.

² <https://www.irrigationnz.co.nz/KnowledgeResources/FishScreens>

Current State of Fish Screen Facilities in Canterbury

13. There are 931 known fish screen facilities in Canterbury.
14. Ensuring all active fish screen facilities are compliant and effective is complicated because the design, build, installation and compliance assessment requires technical expertise across a range of disciplines including engineering, fish ecology and policy/regulation.
15. In addition, surface water takes are dynamic and are susceptible to flooding and high levels of flow variability. There are currently few readily available off-the-shelf fish screen facility products that meet the ranges of local conditions and/or consent conditions meaning modular products are often not suitable.
16. The fish screen facility monitoring undertaken by Environment Canterbury in 2017/2018 showed that 83% were found to be non-complying with consent conditions, while 91% were considered ineffective. Three were effective and while two were compliant, they were ineffective, but their consent condition wording meant that they could not be deemed non-compliant. This pointed to a need for improvement to industry standards, a need for qualified industry advice, and greater clarity in consenting conditions.
17. Following the results of the 2017/2018 monitoring, Environment Canterbury has been refining its Compliance, Monitoring and Enforcement (CME) approach to assess each fish screen facility against the requirements set out in the LWRP Schedule 2, to determine compliance and screen effectiveness. If needed, consent holders must now develop and implement an action plan which specifies the steps and timeframe to become compliant.
18. Ngā Papatipu Rūnanga (specifically Te Rūnanga o Arowhenua and Aoraki Environmental Consultancy on behalf of Te Rūnanga o Arowhenua) have participated in the development of the above processes to ensure mana whenua values are considered as part of fish screen facility compliance approach.
19. Alongside the review of the FSWG, Environment Canterbury also undertook an analysis of its internal work programme to clarify the effort required by Environment Canterbury as the regulator and the investment required from industry to achieve compliant and effective fish screen facilities across Canterbury within a reasonable timeframe.
20. The internal analysis concurred with a number of actions identified by the FSWG needed to make improvements in Environment Canterbury's regulatory approach and to ensure good fish outcomes.

Current State of Compliance, Monitoring and Enforcement Activity

21. Environment Canterbury's current fish screen monitoring programme started in 2018. In that time, 220 fish screen facilities have been monitored.
22. As at August 2023:
 - 29 of the monitored fish screen facility have been assessed as compliant;
 - 33 either do not require an fish screen facility, are not currently in use or require further work to determine their compliance status;

- 27 have been upgraded;
 - 131 non-complying fish screen facilities requiring the consent holder to act.
23. Staff capacity issues have impacted Environment Canterbury's ability to follow up with the 131 non-complying FSF but it is being actively worked on.

Key Areas to Support Fish Screen Facility Effectiveness

24. The initial analysis for the Environment Canterbury programme identified three key areas of work:
- A. Policy review and update
 - B. Compliance, Monitoring and Enforcement (CME) – including the processes and systems to enable compliance, monitoring of fish screen facility consent conditions
 - C. Administering a Technical Advisory Group
25. Each of these areas of work is detailed below:

A: Policy Review and Update

26. Work is underway to update the policy direction in the Regional Policy Statement (RPS) to protect the different life stages of aquatic and coastal animals. The revised RPS will influence future regional policies and rules.
27. A review of the current NIWA 2007 Guidelines to include recent research regarding indigenous fish would also support development of regional policies and rules. In particular, a review and update of Schedule 2 (LWRP) is recommended by the FSWG and the internal analysis to provide the criteria to ensure fish screen facilities are designed to protect indigenous *and* sports fish. This piece of work could be undertaken or led by a Technical Advisory Group.

B: Compliance, Monitoring and Enforcement (CME) activities

28. Finalisation of the action plan process and templates, and staff training, by the end of the current irrigation season to enable follow up on the remaining 131 monitored non-compliant consents that require action.
29. Environment Canterbury will work with industry providers to ensure they are aware that consent holders will be contacting them for information and products, where necessary, to reach compliance.
30. Developing a 2024/25 work plan that strikes the right balance of effort for Environment Canterbury in providing support for expiring water takes and undertaking targeted fish screen facilities compliance, monitoring.

C: Administering an External Technical Advisory Group (TAG)

31. The FSWG recommended an ongoing role for a group with industry, regulation and scientific expertise to support Environment Canterbury to refine standards and procedures with the aim of reducing complexity, reducing regulatory burden and costs and ensuring industry investment in functional fish screen infrastructure.

32. The TAG is an evolution from the Fish Screen Working Group into a technical group to give direct guidance to Environment Canterbury.
33. Environment Canterbury is drafting terms of reference, code of conduct and a draft work programme and budget for a proposed TAG. These elements will be workshopped in early 2024 with prospective members, including mana whenua and wider industry stakeholders.
34. As an initial step the TAG may undertake to lead a review of the 2007 NIWA Guidelines and provide specialist advice³ on the development of the integrated plan following the notification of the RPS.
35. Other tasks would address recommendations of the former FSWG and include a mechanism for the TAG to provide guidance and technical advice to consent holders.
36. Environment Canterbury is best placed to commission some of this work initially given its experience in fish screen facilities, with a view to seeking industry and central government funding and support for this external advisory function.

Cost, Compliance and Communication

Financial Implications

37. Resourcing requirements for this work will need to be considered as part of the delivery of the Environmental Regulation and Protection core service in the Long-Term Plan.

Risk Assessment and Legal Compliance

38. The proposed programme has taken into consideration the feedback from the FSWG and identified tasks that could be undertaken by a focussed TAG.
39. The proposed programme builds on Environment Canterbury's investment to improve fish screen facility compliance since 2018, including incorporating the concerns of mana whenua via Te Rūnanga o Arowhenua.
40. Developing and resourcing a work plan to improve fish screen facilities will enable Environment Canterbury to meet the expectations of our Treaty partner and FSWG member organisations.

Engagement, Significance and Māori Participation

41. The Fish Screen Working Group approach has been based on engagement between industry and environmental groups to resolve issues around fish screen facilities. This has been a significant engagement over several years.
42. Feedback from the FSWG and Ngā Papatipu Rūnanga provided through the review of the FSWG undertaken earlier this year has informed the proposed programme, including the opportunities for a TAG.

³ For example, by identifying how mahinga kai can be enhanced and protected.

Consistency with Council Policy

43. This work is consistent with Council policy and sits under the Canterbury Water Management Strategy.

Climate Change Impacts

44. The fish screen facility work undertaken by Environment Canterbury does not directly consider the impacts of climate change.
45. Improving the overall health of fish populations by ensuring fish remain in the river will support fish populations' resilience to the impacts of climate change.

Communication

46. A communication plan is not required as this proposed programme sits under the wider compliance work of Environment Canterbury.

Next Steps

47. A workshop will be held in early 2024 with prospective TAG members, including mana whenua and wider industry stakeholders.
48. Staff will assess annual requirements for scope and effort of the proposed fish screen facility programme within the wider context of Environment Canterbury's compliance work within the Environmental Regulation and Protection Core Service.

Attachments

Nil

Legal review	
Peer reviewers	Dann Olykan, Team Leader Strategy and Planning Vic Stuart, Principal Implementation Leader – Water and Land

8.3. Environment Canterbury's Current Pesticide Monitoring Programmes

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Matt Riddle, Senior Scientist - Land Resources
Responsible Director	Dr Tim Davie, Director of Science

Purpose

1. At the meeting on 18 October 2023, the Water and Land Committee requested that staff investigate the feasibility of a monitoring programme for pesticides in receiving environments (e.g., groundwater), and provide an update at the next meeting of the Committee.
2. This paper responds to that request, provides an overview of pesticide residues that have been monitored by Environment Canterbury and explains the rationale for our current approach to pesticide monitoring.

Recommendations

That the Water and Land Committee:

1. **Notes that current Environment Canterbury monitoring programmes, together with national surveys are appropriate for maintaining an understanding of pesticide residues in the environment.**
2. **Recommends that Environment Canterbury continues to monitor pesticides alongside other agencies, noting that progress updates will be provided to Council, or an appropriate committee of Council, as part of reporting on State of the Environment monitoring.**

Key points

3. Environment Canterbury does not currently include pesticide residues as part of its long-term soil quality monitoring programme.
4. Pesticide investigations and monitoring in surface water and groundwater have been conducted at various times by Environment Canterbury. National level surveys of pesticides in groundwater are also undertaken every four years. Attributes monitored, together with sampling protocols and relevant standards are prescribed as part of National Environmental Monitoring Standards (NEMS).
5. Environment Canterbury data show pesticide residues found in sediment and water samples in Canterbury are at concentrations below those currently considered hazardous to human or environmental health.
6. Environment Canterbury scientists will continue to keep up to date with relevant national and international research and policy developments on pesticide residues and their effect on the receiving environment.

Background

7. Pesticides play a vital role in achieving an economic return on agricultural production for many landowners. However, the current use and occurrence of pesticides in soils and waterways across New Zealand is not well defined.
8. Pesticides, which include insecticides, fungicides, herbicides and plant growth regulators, are commonly used in New Zealand to control insects, diseases and weeds in industries including agricultural farming, forestry and horticulture⁴. The horticultural sector is the most intensive user of pesticides on a land area basis (13.2 kg active ingredient/ha) followed by arable, forestry and pastoral sectors.⁴
9. As a Regional Council, we are obliged under Section 35 of the Resource Management Act to monitor the state of the environment. The interpretation of this does not specify the monitoring of pesticide residue in either water or soil. This is decided either nationally through policy changes or within each regional council.

Environment Canterbury Pesticide Investigations and Monitoring

Land Resources

10. Environment Canterbury does not carry out pesticide monitoring in soils. This reflects the current NEM standards for monitoring soil health.
11. There is currently no requirement for regional councils in New Zealand to monitor agricultural soil for pesticide residues, and no regional councils currently have any permanent pesticide monitoring programme. The main reasons for this are the lack of evidence that current surface and groundwater pesticide concentrations in New Zealand are at a level where human health is negatively affected.
12. In addition, our soil quality monitoring programme resampling period is nine years. As most pesticides currently used in New Zealand have a short half-life in soil (<1 year), the value of a snapshot result every nine years would be limited. Instead, by monitoring the receiving environment (i.e. evaluating pesticide residues in surface and groundwater), we can get a better understanding of any pesticide residues migrating beyond the soil environment and focus resources to target any problem locations if they arise.
13. Waikato Regional Council (WRC) recently carried out a one-off programme to investigate the presence of 203 organic pesticides in 49 soil samples within their region as part of a wider study carried out by Auckland University and Plant and Food Research.
14. That study found 33 out of the 203 pesticides tested were detected in the samples. Glyphosate and its metabolite product aminomethylphosphonic acid (AMPA) were found in all soil samples where anthropogenic activities have occurred, but not at sites within native bush. Only one pesticide, Dieldrin, was detected above a threshold guideline. The guidelines are published in the [MfE Environmental Guideline Value](#)

⁴ Manktelow D, Stevens P, Walker J, Gurnsey S, Park N, Zabkiewicz J, Teulon D and Rahman A (2005). Trends in Pesticide Use in New Zealand: 2004. Report to the Ministry for the Environment, Project SMF4193. HortResearch Client Report no. 17962.

[database](https://environment.govt.nz/facts-and-science/land/environmental-guideline-value-egv-database/) (<https://environment.govt.nz/facts-and-science/land/environmental-guideline-value-egv-database/>) which includes both human and environmental health guidelines.

15. The effect of pesticide residues on soil biological health is, however, still unclear. National guidelines on pesticide residue target ranges do not currently exist. To help increase knowledge in this area in general, the Land Resources team has contracted Manaaki Whenua Landcare Research to undertake a national and international review of available soil biological health indicators. Results from this will help inform future decisions made in relation to Environment Canterbury's soil quality monitoring programme.

Contaminated Land

16. The National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil to Protect Human Health introduced a nationwide set of consistent planning controls for land affected or potentially affected by soil contamination. Under the regulations, "land is considered to be actually or potentially contaminated if an activity industry on the Hazardous Activities or Industries List (HAIL) has been, is, or is more likely than not to have been, undertaken on that land"⁵.
17. The HAIL is a list of activities and industries considered likely to cause land contamination from the use, storage and disposal of hazardous substances. Pesticides are specifically referred to in HAIL Category A10: "Persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glasshouses and spray sheds".⁵
18. Environment Canterbury's publicly available Listed Land Use Register (LLUR) holds information about HAIL sites in the region. There are currently 2,688 HAIL A10 sites recorded on the LLUR, many of which have not been investigated. However, since persistent pesticides are generally no longer used in New Zealand, it is considered a historical, legacy issue for landowners, rather than a current or future issue.
19. The LLUR sites are not actively monitored for changes in pesticide concentration by Environment Canterbury, but if a resource consent application includes the disturbance of soil or discharge of stormwater at any of the identified HAIL locations, then specific protocols will need to be followed by the applicant.

Surface water

20. From 1990 until 2010, Environment Canterbury undertook sampling across a broad range of stream types including large alpine, hill and spring-fed waterways. Regular sampling is no longer undertaken due to the difficulties in detecting episodic occurrences in moving water (i.e. representativeness of grab samples), the cost, and the lack of information linking pesticide occurrence to ecosystem effects.
21. In 2019, Environment Canterbury carried out a survey of pesticide residues in nineteen surface water sites, stratified by land use. The survey was designed to check whether surface water pesticide residues had become a bigger issue since 2010. Sites were

⁵ James, T. and Gaw, S. 2015. Review of potential soil contamination issues from pesticide use in productive land and sports fields. Report for Tasman District Council. Client report number: 545

chosen based on prior knowledge of potential areas of interest. A total of 205 chemicals were tested in sediment and 210 in water.

22. In water, five different chemicals were detected. Terbutylazine (herbicide) and its derivatives were the most commonly detected chemicals (at nine sites). The highest Terbutylazine concentration recorded was 0.31 µg/L, which was considerably lower than the World Health Organisation (WHO)⁶ recommended drinking water standard of 7 µg/L. This result was also below the levels required to pose a risk to algae (16 µg/L) and several orders of magnitude lower than the toxicity (LC50) levels for *Daphnia* spp. (69,500 µg/L) and rainbow trout (*Oncorhynchus mykiss*; 220 µg/L).⁷
23. Hexazinone was detected at three sites, with a maximum of 0.03 µg/L measured. The provisional maximum acceptable value (PMAV) is 400 µg/L.⁸
24. Triclopyr was detected at 0.3 µg/L at one site only. The NZ drinking water standards have set a provisional maximum acceptable value (MAV) of 100 µg/L triclopyr.⁸
25. In sediments, six different chemicals were detected, with Glyphosate or its metabolite AMPA being the dominant chemicals detected (at nine sites). Ecological guidelines for Glyphosate (max. conc. detected, 0.31 mg/kg) and AMPA (max. conc. detected 0.59 mg/kg) in sediment were not available at the time of this report.
26. Three of the detections were from the DDT isomers (DDE, DDD and DDT). These were identified at only one site at a concentration of 0.14 mg/kg. This was below the agricultural and ecological receptor guideline of 0.7 mg/kg. ([MFE, online](https://environment.govt.nz/facts-and-science/land/environmental-guideline-value-egv-database/)) (<https://environment.govt.nz/facts-and-science/land/environmental-guideline-value-egv-database/>).
27. Aldrin was detected at 0.67 mg/kg (just above the detection level) at one site. It is a persistent organic pollutant and was deregistered for use in New Zealand in 1989.

Groundwater

28. The Institute of Environmental Science and Research (ESR) carries out a national assessment of pesticides in groundwater every four years. The 2018 survey found most sampled wells showed no change in the concentrations of pesticides present compared to previous surveys. Low levels of pesticides were detected in less than a quarter of the wells sampled. None of the sampled wells exceeded safe drinking water standards, with most pesticides detected at less than 0.5% of the MAV.

⁶ WHO. 2003. Terbutylazine (TBA) in Drinking-water. Background document for development of WHO Guidelines for Drinking-water Quality. <https://cdn.who.int/media/docs/default-source/wash-documents/wash-chemicals/terbutylazine.pdf?>

⁷ Baillie, B.R. Herbicide concentrations in waterways following aerial application in a steepland planted forest in New Zealand. *N.Z. j. of For. Sci.* 46, 16 (2016). <https://doi.org/10.1186/s40490-016-0072-0>

⁸ Taumata Arowai. 2022. Drinking water Standards for New Zealand. <https://www.legislation.govt.nz/regulation/public/2022/0168/latest/whole.html#LMS698042>

29. Analysis for glyphosate was first included in the 2018 survey. Glyphosate is widely used in New Zealand as a general-purpose herbicide. It binds to soil and is readily degraded; as such, it is not expected to leach to groundwater.
30. Glyphosate was only detected at one of 135 wells sampled, at a concentration of 2.1 µg/L. This is more than 400 times below the World Health Organisation Health Based Value for glyphosate of 900 µg/L⁹.
31. In 2017, Waikato Regional Council analysed glyphosate and its metabolite product (AMPA) in 40 groundwater wells.¹⁰ Samples analysed had a detection limit of 1 µg/L. No glyphosate was detected in any of the samples, but AMPA was detected in one well at a concentration of 1.9 µg/L.
32. Herbicides were the most frequently detected pesticide group in the 2018 national survey, with 98 detections (88%) of 17 different herbicides and their metabolites, with seven insecticides and one fungicide detected in the sampled wells. None of the wells sampled exceeded the MAV for drinking water.
33. The 2018 national survey also coincided with the most recent Environment Canterbury groundwater pesticide survey. Data from the 71 wells sampled by Environment Canterbury were included in the ESR survey.
34. The 2018 Environment Canterbury survey showed that of the many chemicals applied both currently and historically, there were few detected in groundwater samples using very sensitive analytical techniques. Pesticides were detected in 26/77 (34%) of wells in Canterbury, with Simazine, Terbutylazine and DET (all herbicides) the most prevalent. Although measurable concentrations of one or more pesticides were found, the levels detected were low, and none of the concentrations exceeded drinking-water standards or freshwater quality guidelines.
35. As a consequence of the very low pesticide concentrations measured in groundwater in the 2018 Environment Canterbury survey, with no trigger levels being met, the decision was made to extend the frequency of groundwater sample analysis for pesticides, from every four to every ten years. The ESR national study, which includes Canterbury sites, continues to be undertaken at four yearly intervals.
36. The most recent national survey (in 2022) included five wells from the Canterbury region. Only one of the five wells had pesticides detected (both DET and Terbutylazine), and concentrations were below the maximum acceptable value.
37. Across the country, pesticides were detected in 17 wells (9.2% of wells sampled) in the 2022 survey. This represents a significant decrease compared to the 2018 survey in which 68 wells (24.4% of wells sampled) had pesticides detected.

⁹ World Health Organization (2017). Guidelines for drinking-water quality: fourth edition incorporating the first addendum. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

¹⁰ Hadfield, J., 2017. Glyphosate Occurrence in Waikato Groundwater Survey. Hamilton, New Zealand. Waikato Regional Council Memo File Number 47 03 25, 12 p.

Cost, compliance and communication

38. If analyses of pesticide residues were to be added to existing monitoring programmes (e.g., via sampling different materials in the receiving environment or increased frequency of sampling), changes to budgets would be required, as the costs associated with pesticide monitoring programmes of any scale are substantial. A commercial laboratory in Christchurch currently charges \$740 per sample for their suite of pesticide residues in soil, including Glyphosate and its metabolite, AMPA. Analysis in water, including a general pesticide suite, Glyphosate and AMPA is \$637 per sample.
39. Other factors that would need to be resolved ahead of making changes to existing monitoring programmes include:
- Provision of national guidelines on soil quality target ranges for pesticide residues. These are seldom available but are essential to ensure a meaningful programme.
 - If specific monitoring targets were introduced and regulations on residue limits for agricultural soils implemented, the question of liability for the cost of land rehabilitation (if guideline limits were exceeded) would need to be answered and appropriately communicated.

Financial implications

40. This paper recommends no change to existing monitoring programmes, therefore no change in budget is required.

Risk assessment and legal compliance

41. There is currently no legal obligation for Environment Canterbury to monitor pesticide residues.
42. Should surface water or groundwater pesticide concentrations increase to concerning levels, or national policy change to require pesticide monitoring, a suitable monitoring programme will be investigated.

Engagement, Significance and Māori Participation

43. Community engagement around pesticides in the environment has been at the time of reports being released (e.g., national survey results) or a particular issue has been highlighted.
44. Any future pesticide monitoring programme would need to consider Papatipu Rūnanga priorities and perspectives on pesticides. This may include the impact of pesticides on mahinga kai and taonga species.

Consistency with council policy

45. The current monitoring programme is as per agreed Levels of Service in the 2021-2031 Long-Term Plan.

Climate Change Impacts

46. Increases in temperature and changes in rainfall patterns may increase the presence of existing arable diseases ([MPI, 2017](#)). (<https://www.mpi.govt.nz/dmsdocument/28164-Adapting-to-climate-change-Information-for-the-New-Zealand-food-system>)
47. New exotic weeds, pests and diseases may also result from a changing climate, leading to an increase in pesticides in the environment ([MPI, 2017](#)). (<https://www.mpi.govt.nz/dmsdocument/28164-Adapting-to-climate-change-Information-for-the-New-Zealand-food-system>)
48. Climate change may also affect the pesticide activity of pesticides, resulting in changes to standard application rates. This may also resulting in changes to pesticide residues in the environment ([MPI, 2017](#)). (<https://www.mpi.govt.nz/dmsdocument/28164-Adapting-to-climate-change-Information-for-the-New-Zealand-food-system>)
49. Nonetheless, any such changes do not have a material impact on the advice provided here.

Next steps

50. Environment Canterbury science teams will continue to keep up to date with national policy changes as well as national and international research. Any soil or water quality related developments will be discussed and evaluated in-house, as well as with the many nationally coordinated regional sector special interest groups that our scientists are involved in.
51. If pesticide residues are identified in increasing frequency and concentration, a targeted approach to identify pesticide sources could be implemented in order to inform any decisions on a larger monitoring programme.

Attachments

Nil

Legal review	
Peer reviewers	

8.4. Update on Recreational Water Quality

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Dr Elaine Moriarty, Surface Water Science Manager, Tim Drennan, Manager Service Excellence, Three Waters Christchurch City Council
Responsible Director	Dr Tim Davie, Director of Science

Purpose

1. To report on work being carried out this summer by Christchurch City Council (CCC) and Environment Canterbury in relation to contact recreational water quality in and around Banks Peninsula.
2. This follows up on discussion at the Water and Land Committee meeting of 18 October 2023, where Councillors expressed interest in hearing further updates regarding the results of investigations into the root causes of poor water quality in various sites, and information about activities that have improved water quality.

Recommendations

That the Water and Land Committee:

1. **Receives the update on Recreational Water Quality, noting that increased community engagement will occur during the summer.**
2. **Recommends that staff continue to work collaboratively with Christchurch City Council and Te Whatu Ora to find and repair any sources of pollution identified, noting that progress updates will be provided to Council, or an appropriate committee of Council, on an ongoing basis.**

Key points

- Work is underway to detect the sources of faecal pollution affecting the swimming sites in and around Banks Peninsula.
- High bacterial counts in the water typically, but not exclusively, occur following rainfall.
- This is a complex issue and one that will not be easily resolved.
- There has been, and will continue to be, several opportunities for the community to meet with staff and understand the issues affecting the beaches.
- This work is happening in collaboration with mana whenua, our Territorial Authority Partner (Christchurch City Council) and Te Whatu Ora.

Background

3. The issues leading to the poor contact recreation water quality at various locations across Canterbury are complex, but often occur following rainfall. The lead agencies are working collaboratively to address them.
4. The lead agencies involved in monitoring are:
 - a. Environment Canterbury – monitoring and reporting on contact recreation water quality.
 - b. Te Whatu Ora – providing health advice on the monitoring results and the decision-maker on public advice (e.g. no swimming recommended).
 - c. Territorial Authorities – signage at swimming sites.
5. Where poor swimming water quality is found, then Environment Canterbury leads science investigations to find the probable source of contamination. Environment Canterbury then works with land/asset owners to eliminate the contamination.
6. In recent years an increased number of beaches within Lyttleton Harbour/Whakaraupō and Akaroa have been graded as not suitable for swimming. Upon investigation, human faecal waste has been identified as a significant faecal source.
7. As discussed at the Water and Land Committee meeting of 18 October 2023, work is underway to find and remediate these pollution sources. This is a complex exercise across a large area with multiple possible sources of pollution.
8. A number of actions are underway by Christchurch City Council within the catchments of Banks Peninsula. This includes fixing broken infrastructure, planting to reduce sediment load, removal of feral animals and stock from the catchments and supporting the work of Whaka Ora/Healthy Harbour partnership.

Work carried out to date

9. Resources for landowners about maintaining on-site wastewater treatment systems and what to look for to prevent any wastewater discharges has recently been comprehensively updated and is on our website <https://www.ecan.govt.nz/your-region/your-environment/water/wastewater/information-for-developers-designers-and-installers/>.
10. The Science and Communication teams along with Te Whatu Ora have attended several community events to raise awareness on swimming water quality. This was supported by the Stormwater Superhero trailer and representatives from Whaka Ora and the Banks Peninsula Water Zone Committee.
11. Staff visited Lyttleton Market on the 7th of October and 4th of November, Governors Bay Fete on the 15th of October and the Orton Bradley Park Spring Fair on the 22nd of October.
12. During these events the team spoke to many local residents as well as visitors from Christchurch City. For the most part, the public were very receptive to talking about how water quality could be improved. Many people had questions about their septic tanks, and some residents advised that they had recently enlisted the help of

drainlayers for work on their properties, or use the Snap Send Solve app for issues on public land. During the Orton Bradly Park event we had 128 conversations about these issues and other questions relating to swimming in the area.

13. At the most recent visit to Lyttleton Market the team spoke to 52 people during the morning and again had very useful and engaging conversations. Several locals spoken to at this event noted that they had recently engaged a drainlayer to help fix pipes on their property. Many took information about maintaining their septic tanks.
14. Overall, the public were engaged and interested to learn more about water quality issues and how they could play their part in the solution.
15. One final engagement event is scheduled for 5 December 2023 in Akaroa.
16. Engagements such as these will continue as required over the summer with Environment Canterbury staff attending to address the questions regarding the sampling and results, and Te Whatu Ora staff attending to address the Public Health issues.
17. Christchurch City Council have begun activities to identify sources of pollution. Actions include:
 - a. Sampling water ways and stormwater drains to identify the presence of sewage leaks.
 - b. Added additional sampling locations to support the location of potential contaminants.
 - c. Inspecting water ways, stormwater drains, pumpstations and roadside kerbing.
 - d. Checking public facilities nearby beaches.
 - e. A new wastewater treatment plant is under development for Akaroa township. This will remove the current discharge to the harbour and instead discharge treated wastewater to land.
18. Despite several sanitary surveys being carried out, no obvious source of contamination in Lyttleton Harbour, such as a large broken sewer pipe, has been found. Therefore, the source is most likely several smaller sewer pipe leaks discharging to waterways.
19. In the past 12 months the treated wastewater from the Lyttleton harbour catchment is no longer discharged to the harbour. It is now piped to Bromley Wastewater treatment plant for treatment.
20. Environment Canterbury staff will continue to support Christchurch City Council in identifying the sources of human faecal contamination in Cass Bay, Corsair Bay, Rāpaki Bay, Diamond Harbour, Purau Bay, Akaroa Main Beach and Glen Bay. This will involve working with the science team to prioritise catchments for investigation, and then following up with water quality sampling after any repairs are made.

Cost, compliance and communication

21. All costs associated with the Summer Bathing Programme are covered by existing budgets.

Risk assessment and legal compliance

22. There is significant reputational risk for Environment Canterbury in communicating health risks to the public. This is mitigated by working closely with Te Mana Ora who have health expertise and following guidelines provided by the Ministry of Health. However, Environment Canterbury is the lead agency and the public look to us for explanations.
23. Under the National Policy Statement for Freshwater Management (2021) Regional Councils are required to monitor freshwater contact recreation sites that are named in the Land & Water Plan. Environment Canterbury is legally compliant with this requirement.

Engagement, Significance and Māori Participation

24. Significant engagement on this issue has occurred with Papatipu Rūnanga, Zone Committees, Whaka Ora/Healthy Harbour, community groups and residents of Whakaraupō /Lyttelton Harbour.
25. All results are shared with Papatipu Rūnanga in person where possible.
26. Environment Canterbury will continue to share results on the “Can I Swim Here?” page of the LAWA (Land, Air, Water Aotearoa) [website](https://www.lawa.org.nz/explore-data/swimming/). (<https://www.lawa.org.nz/explore-data/swimming/>)
27. Key messages for the community in relation to water quality are being shared via social media, letters, magazines, radio advertisements, posters and local newspapers.

Climate Change Impacts

28. We expect Climate Change to have an impact on the frequency and intensity of rainfall events. These in turn, can lead to an increased number of days when swimming would not be recommended.

Communication

29. Environment Canterbury will undertake its annual Can I Swim Here? communications campaign from December to January this year. The community will be encouraged to “look before they leap” and check the LAWA Can I Swim Here? website to find out where are the best spots for recreation before they go out. Social media advertising, posters, fliers, and staff at events will be promoting this message before and during the swimming season. This work includes a separate campaign focused on educating the public about how to identify cyanobacteria, its risk and what to do to keep people and animals safe in our waterways. As above, reactive and proactive social media and digital advertising, brochures and collaboration with local vet clinics will be a priority with this campaign.
30. A separate engagement campaign has been underway for Whakaraupō /Lyttelton Harbour due to the many popular sites graded poor for swimming this season. Residents have received a letterbox drop sharing health information and key messages about what they can do to help our efforts to improve water quality in the

region. Staff are also attending community events and meetings around the Harbour to share this information.

31. Region-wide warning signage has been created in collaboration with Te Mana Ora for Territorial Authorities to use to alert communities to the health risks present at recreation sites in their area. This aims to create consistency throughout the region and assist the public to recognise and read the relevant health information they need to know. Several Territorial Authorities are now in the process of implementing these signs at their monitored recreation sites.

Next steps

32. Monitoring over the summer bathing season will continue until March 2024. The Communications and Science teams across the organisations involved will work closely on messaging and explaining the water quality results to the public.
33. The monitoring and reporting of water quality at freshwater and marine sites will continue until early March 2024. Staff will continue to work collaboratively with Christchurch City Council to find and repair any sources of pollution identified. Over the summer messaging will continue regarding the role the community can play in finding a solution to the water quality issues.

Attachments

Nil

Legal review	
Peer reviewers	

8.5. Portfolio Work Programme - Water and Land

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Nicole Lynds, Principal Advisor Portfolio Management
Responsible Director	Dr Tim Davie, Director Science

Purpose

1. To update the Committee on the progress of the Water and Land Portfolio.

Recommendations

That the Water and Land Committee:

1. **Receives the work programme report for quarter one 2023/24 for the Water and Land portfolio.**

Background

2. On 17 June 2021, the Council adopted its Long-Term Plan 2021-31 which outlines the work structured within the Water and Land portfolio.
3. Through this portfolio the Council are building community engagement and action as a partner within the Canterbury Water Management Strategy, accelerating regeneration of the natural environment through zone and regional delivery projects and campaigns, taking decisive action in freshwater management, and fostering relationships.
4. The portfolio consists of six programmes:
 - Working together for healthy water and land
 - Monitoring and understanding our environment
 - Freshwater regulatory framework
 - Healthy waterways actions
 - Stewardship of water and land
 - Freshwater resilience
5. The portfolio had a total budget of \$39.05m in 2023-24. This budget was established through the Long-Term Plan and updated where necessary in the Annual Plan 2022/23 and Annual Plan 2023/24.

Key updates to the work programme

6. In August 2023, Councillors endorsed improvements to quarterly reporting that now sees performance for all five portfolios reported first to the Audit, Finance and Risk Committee. The organisational performance reporting pack will include levels of service, key initiatives and financial information for all portfolios.

7. The committee with responsibility for oversight of portfolio work programmes will receive the relevant portion of the reporting pack at the meeting following the Audit, Finance and Risk Committee meeting.
8. The organisational performance update for quarter one (1 July 2023 – 30 September 2023) was provided to Audit, Finance and Risk Committee on 1 November 2023. The section relevant to this committee is provided here as Attachment 8.5.1.

Notable recent achievements/issues

9. At the end of quarter one, Level of Service target 2.1b, 'Implement Mātauranga Māori monitoring programme', was reported as being 'at risk' to the Audit, Finance and Risk Committee on 1 November. As a post quarter update, we can advise that this target will be upgraded to 'on track' for quarter two as we have now revised the programme and feel confident that we will be able to implement this within the year.
10. Each of the nine Canterbury Water Management Strategy (CWMS) Water Zone Committees have now completed and published their annual Progress Report. Each Progress Report:
 - highlights the actions of the zone committee and the progress it has made toward its objectives; and
 - identifies the challenges and opportunities the zone committee see in the coming year.
11. The annual Progress Reports build on the annual presentations throughout 2023 to the Water and Land Committee by each zone committee. The annual Progress Reports can be found at [What's happening in my water zone? | Environment Canterbury](https://www.ecan.govt.nz/your-region/your-environment/water/whats-happening-in-my-water-zone/).
(<https://www.ecan.govt.nz/your-region/your-environment/water/whats-happening-in-my-water-zone/>)
12. At its 25 August 2023 meeting, the Canterbury Mayoral Forum agreed to an evaluation and review of the CWMS structures by 2025. The review will be initiated in early 2024 and will consider how best to support the community leadership and engagement needed to drive improved freshwater and environment outcomes at the zone/catchment level.
13. Te Rōpū Tuia held a wānanga in September with Papatipu Rūnanga representatives along with representatives from Rūnanga environmental entities and Environment Canterbury staff. It began with an overview presentation of the strategic importance of a Regional Policy Statement (RPS) and was followed by two productive workshop sessions.
14. The first session covered six key topics looking at what is critical to address going forward. The second session opened a discussion on the ways our Freshwater Management Units (FMU's) could be further developed and understood. This included the need to look at catchments, key landscape areas across catchments and consideration of mahinga kai and biodiversity as potential indicators of health and wellbeing for FMU's.
15. There was an acknowledgement of the challenges that all our communities are facing, as well as the challenges across ngā Papatipu Rūnanga and Council to continue to develop the RPS. It was also acknowledged that continuing to work together and

continuing to gather feedback from our communities through the next phase of public engagement is critical as we move towards the next steps of drafting options.

Cost, compliance and communication

Financial implications

16. No decisions concerning funding are sought through this report, and financial portfolio and programme reporting is provided to the Audit, Finance and Risk Committee.

Risk assessment and legal compliance

17. No legal compliance issues have been identified for this progress report.

Engagement, Significance and Māori Participation

18. Engagement with Papatipu Rūnanga, mana whenua and the community are an important aspect of much of the work that occurs in these programmes and is embedded within the programmes.

Consistency with council policy

19. The Levels of Service, programmes and initiatives outlined in this report are consistent with the Council's Long-Term Plan 2021-31.

Climate Change Impacts

20. Climate change impacts are a key consideration in the development of our work programmes and initiatives.

Communication

21. The information included in this report will be available [online](https://www.ecan.govt.nz/reporting-back/) (<https://www.ecan.govt.nz/reporting-back/>) on Environment Canterbury's website. This reports the progress of our work to our communities.

Next steps

22. Staff will continue to deliver the work programme and provide quarterly updates to the Committee on the progress made.





Attachments

1. Water and Land Portfolio Performance Update 2023-24 Quarter 1 [8.5.1 - 8 pages]

Legal review	
Peer reviewers	








Water and Land Portfolio Performance Update for Quarter One 2023/24

















This performance update includes Levels of Service, Key Initiatives, and financial performance.











Water and Land Portfolio	 On Track to achieve	 At Risk / Monitor	 Will Not Achieve / requires attention	 Achieved / Completed	Not Measured	Total No.
Levels of Service	11	1				12
Level of Service targets	22	1			1	24
Key Initiatives	8					8













	September YTD Actual	September YTD Budget	Variance from Budget
Financial Performance	0.81M	(1.25M)	2.07M

Water and Land Levels of Service reporting

Level of Service	Target result 22/23	Commentary	Projected year end status
1. Facilitate the Canterbury Water Management Strategy zone and regional committees to support achievement of the 2025 goals, in partnership with Ngāi Tahu and the Canterbury region's city and district councils	 Achieved	Target 1.1a Hold at least 44 Zone and Regional Committee meetings per year During quarter one there have been 20 Water Zone Committee meetings and workshops. The CWMS Regional Committee was discharged by Environment Canterbury at the 20 September 2023 Council Meeting.	 On track to achieve
	 Achieved	Target 1.1b Update and publish each Zone Committee Action Plan as per terms of reference All nine Water Zone Committees have reviewed and updated their Actions Plans, if required, for 2023/24.	 On track to achieve
		Target 1.2 Publish quarterly reports on the Canterbury Mayoral Forum website to provide updates to the Mayoral Forum on matters of interest to that group (new) The CWMS report for July - September 2023 will be published on the Canterbury Mayoral Forum (CMF) website following the CMF meeting on 24 November.	 On track to achieve
2. Monitor and provide accurate and timely State of the Environment data for Canterbury, for use by decision-makers and the community	 Achieved	Target 2.1a Collect and publish data on the Environment Canterbury and Land Air Water Aotearoa websites We continuously collect and make available a range of data on the Environment Canterbury website (ecan.govt.nz) and the Land Air Water Aotearoa (LAWA) website (www.lawa.org.nz/) – our regional state of the environment reporting platform.	 On track to achieve





Level of Service	Target result 22/23	Commentary	Projected year end status
	 Not achieved	Target 2.1b Implement mātauranga Māori monitoring programme Implementation of the draft monitoring framework is contingent on having the appropriate mandate in place to progress. Staff are still giving consideration to this wider context, and we will provide an update in quarter two.	 At risk
	 Achieved	Target 2.3a Report and assess the quality of data collected and managed by Environment Canterbury, including the data provided by third parties During the year we will assess the quality of data and the implementation of National Environmental Monitoring Standards for our water quality data. This review will be reported in the last quarter.	 On track to achieve
	 Achieved	Target 2.3b Assess each monitoring network at least once every 10 years Review of the surface water quality monitoring network is due by January 2024, but consideration is being given to whether this could be delayed so that it can take into account the new Freshwater Management Units that are under development as part of the freshwater regulatory framework.	 On track to achieve
3. Undertake targeted science research and investigations on matters relevant to policy development to inform Council and stakeholders	 Achieved	Target 3.1 Collect and publish data Data analysis and report preparation are underway for several research investigations into water and land resources in the region.	 On track to achieve
4. Partner with Papatipu Rūnanga and engage with the community to inform amendments to the regulatory framework (to give effect to central government's Essential Freshwater package, achieving Te Mana o te Wai)	 Achieved	Target 4.1 Report on progress of the programme to develop a compliant regulatory framework Reviewing the Land and Water Regional Plan is part of developing an integrated planning framework (current priority project). It has taken longer than anticipated to develop governance arrangements and gather the information we need on the current state of Canterbury, pushing out some of the timeframes. For quarter one, we commenced engagement with the community to seek feedback on their vision for Canterbury.	 On track to achieve
5. Partner with Papatipu Rūnanga and engage with the community to implement central government's Essential Freshwater package to improve freshwater outcomes	 Achieved	Target 5.1a Report on programme progress (2023/24) The overall Kaitiakitanga Mahinga Kai programme is gaining momentum and is on track, with a number of completed projects that demonstrate value. Te Mana o Te Wai programme will be developed later in the year once various key roles have been recruited.	 On track to achieve
	 Achieved	Target 5.1b Actively manage and report on progress of catchment projects identified by Rūnanga. Four projects have been funded this quarter, including an environmental training project to enable rūnanga to undertake environmental work with one of their awa.	 On track to achieve
6. Increase community awareness and understanding of NPS FW and LWRP requirements	 Achieved	Target 6.1a Deliver two campaigns N-Cap (synthetic nitrogen fertiliser cap) and Intensive Winter Grazing (IWG) campaigns are continuing with N-	 On track to achieve




Level of Service	Target result 22/23	Commentary	Projected year end status
		Cap in its final year and IWG in year two of its three-year campaign.	
	 Achieved	<p>Target 6.1b Report on progress against campaigns</p> <p>Mid-season flyover has been undertaken to ensure effects from Intensive Winter Grazing were being managed in Waimakariri and Ashburton. Follow up from flight findings was carried out.</p> <p>Planning is currently underway for the next 9 months working with Industry and Environment Canterbury delivery teams. Across the region, at the end of quarter one, 771 individual farms (57.8%) have reported their synthetic nitrogen fertiliser use. The focus now is following up with those who haven't complied.</p>	 On track to achieve
7. Work with Ngāi Tahu, the community, industry, and the region's city and district councils to improve Three Waters, including urban water quality	 Achieved	<p>Target 7.1a Implement work programme to support the region's city and district councils to improve Three Waters</p> <p>We continue to work with Territorial Authorities to improve three water outcomes, including through compliance monitoring of wastewater plants and stormwater networks. We have also worked with TAs to prepare for possible changes through Affordable Waters Reform. We have progressed work with South Island Regional Councils to align 3 Water compliance approaches.</p>	 On track to achieve
	 Achieved	<p>Target 7.1b Implement work programme to support the community and industry to improve urban water quality</p> <p>Implementing the Comprehensive Stormwater Consent with Christchurch City Council is ongoing and is occurring over a multi-year time frame. Micro plastics campaign is on track with nearly 100 sites visited with advice provided to address any onsite issues. Within the Sediment and Erosion Campaign, a 'rainy-day campaign' has been completed, visiting potential high risk sediment erosion sites.</p>	 On track to achieve
8. Work with landowners, stakeholders, Ngāi Tahu and the community to identify and manage significant emerging environmental issues	 Achieved	<p>Target 8.1 Report on response to emerging environmental issues</p> <p>A contractor has been engaged to develop an Integrated Catchment Management Plan, as proposed by the Ōtūwharekai Working Group. The Plan is due in November 2023. Work continues to ensure all farms have the appropriate authorisations in place to achieve lake water quality outcomes.</p>	 On track to achieve
9. Enable resource users to implement Good Management Practices (GMP)	Not measured	<p>Target 9.1 Undertake a targeted biennial survey of customers (eg auditors and consent holders) to determine level of satisfaction with our system/framework/tools</p> <p>Not to be measured 2023/24</p>	Not measured
	 Achieved	<p>Target 9.2 Ensure ≥ 25% of all consented farms are audited</p> <p>Approximately 8% of individual FEPs have been audited. This is on track for this time of year.</p>	 On track to achieve



Level of Service	Target result 22/23	Commentary	Projected year end status
	 Achieved	Target 9.3 Review and report on progress against the Aggregated Consent Entities work programme We are taking a whole-of-organisation approach to develop a solution to enable Environment Canterbury to robustly monitor Nutrient Discharge consent conditions of Aggregated Consent Entities (ACE). This will improve compliance of 15 ACE consents, which in turn will improve outcomes for water quality.	 On track to achieve
10. Monitor and review efficiency and effectiveness of land and water implementation programmes and campaigns	 Achieved	Target 10.1 Review and report on the effectiveness of two campaigns being undertaken to improve landowner/ community understanding of new national direction and Land and Water Regional Plan requirements. A review of campaigns has been completed and improvements implemented.	 On track to achieve
11. Achieve improvements in freshwater outcomes through implementation and delivery of work programmes with partners and key agencies, where priorities are aligned	 Achieved	Target 11.1 Deliver work programmes for catchment-based partnership projects, with progress reported through the governance structures in place The Partnership Programmes team deliver operational programmes with mana whenua, and other external and internal partners. The point of difference with these programmes is that they: (a) lead with rūnanga in the driver's seat; (b) are delivering in partnership with statutory bodies, as well as private entities; and, (c) leverage funding opportunities. All catchment-based partnership programmes (Te Mōkihi/Mackenzie Basin, Whaka-Ora Healthy Harbour/Lyttelton Harbour, and Whakaora Te Waihora/Lake Ellesmere) are: delivering on their annual work plans and budgets, in partnership with rūnanga; and, submit progress reports through their respective governance structures.	 On track to achieve
	 Achieved	Target 11.2 Undertake a review of the outcomes achieved through the joint work programmes (2023/24) The only Joint Work Programmes still in place is with Te Mana Ora. We will undertake a brief review of this work programme - with Te Mana Ora - beginning February 2024 to report in May 2024. A Te Mana Ora meeting was held in September 2023, between Te Mana Ora, CCC and ECan, to update progress on the projects in the joint work programme.	 On track to achieve
	 Achieved	Target 11.3 Report on delivery of 10 priority projects Planning is underway for the zone priority projects, and we have projects that are ongoing that the team are currently working on.	 On track to achieve
12. Partner with others to ensure that regional water infrastructure contributes to outcomes sought through the Canterbury Water Management Strategy and central government's Essential Freshwater package, and improves resilience	 Achieved	Target 12.1c Publish an annual report outlining progress made on the Regional Infrastructure Work Programme We are reviewing the work over the past decade on regional infrastructure. Analysis has been completed on all sites across the Regional Distribution Model (2012). A report is being drafted to explain what has happened at each node since 2012 to aid in work planning and reporting on the regional infrastructure work programme for 2023/24.	 On track to achieve

Water and Land Key Initiative reporting

(Please note, this list does not reflect much of our 'business-as-usual' work or work that is supports delivery across the organisation)

	Q1 status	Q4 22/23 progress	Q1 23/24 progress	FY 23/24 next steps
Three Waters Reform and Implementation – deliver our regulatory responsibilities, prepare for the creation of new water entities, and support improvements to three waters outcomes.	 On track	<p>During the year Environment Canterbury submitted on primary Water Reform legislation and proposed amendments to the NES-DW. Analysis of the implications of meeting this new legislative requirement has been completed and shared across the organisation. South Island regional councils co-funded work to align a framework for wastewater and stormwater compliance monitoring.</p> <p>To assist with this a Three Waters compliance stocktake was undertaken and shared with regional councils in the takiwā. Environment Canterbury continues to engage with Te Kura Taka Pīni on the Water Reform, with Canterbury territorial authorities on asset ownership and flood response, and with on-site wastewater industry groups to lift performance.</p>	<p>Environment Canterbury's drinking water webpage was updated to support the first part of the private well owners information campaign and new on-site wastewater pages are now live.</p> <p>We have engaged with Territorial Authorities on potential flood management asset transfer under Affordable Water Reform and on their implementation and processes to achieve outcomes under stormwater network consents. A memorandum of understanding was signed with Waimakariri DC to support processes for identification of high-risk sites. Compliance monitoring of TA wastewater plants and stormwater networks is ongoing as part of the High Priority Consents programme with compliance issues identified and addressed.</p>	Continue to implement work programme
Zone Committee Action Plan delivery and implementation – facilitate the CWMS Regional and Zone Committees to lead and support others to fulfil a range of roles and responsibilities	 On track	Zone Committees have now completed their Action Plan funding for the year, with 100% of funding allocated to local projects within water zones. The Regional Committee is not yet established.	All nine Water Zone Committees are advancing the implementation of their Actions Plans. Advertising of the CWMS Action Plan Budget is being promoted in most Zones in September and October to raise awareness of this Budget within the community.	Identify Action Plan projects, allocate action plan funding, monitor and report on progress to Water and Land Committee over year.
Implementation of National Freshwater Farm Plan Regulations - preparing for implementation of the national Freshwater Farm Plan regulations	 On track	New Q1 2023/24	Programme management support in place and programme structure is now established to support implementation of national Freshwater Farm Plan regulations over the next 3 years.	Implement the tasks of the workstreams as approved in the Programme Plan to support implementation of Freshwater Farm Plan Regulations.
Monitoring - Collect, archive and publish data on the state of the environment.	 On track	Long-term water monitoring programmes continue, with data available on the Environment Canterbury web site and Canterbury maps. Summer monitoring programmes were undertaken (recreational water, aquatic health).	Current monitoring programmes are being carried out as planned. Implementation of a Mātauranga Māori monitoring programme is delayed pending further context-setting work.	Action next steps: Collect, archive and publish data

	Q1 status	Q4 22/23 progress	Q1 23/24 progress	FY 23/24 next steps
Understanding - Investigate, draft and publish reports and information.	 On track	The following reports have been published during the year: July 2022 rainfall and flow information, Monitoring of Water Quality for Contact Recreation, longair: Te Pātaka o Rākaihautū (the Banks Peninsula Hydrographic project) Ōtūwharekai - Water Quality, Update Hydrometric Network, Nitrate time lag and annual groundwater quality survey	Data analysis and report preparation are underway for several research investigations into water and land resources in the region.	Prepare for, draft and publish reports
Essential Freshwater Implementation - Partner with ngā Papatipu Rūnanga in local implementation of Freshwater management	 On track	Some progress has been made on developing programmes in partnership with ngā Papatipu Rūnanga despite 2 crucial vacancies through much of the year. A key Pou Mātai Kō role has now been filled	Te Mana o Te Wai programme will be developed later in the year once various key roles have been recruited. In the meantime, we are continuing to partner with ngā Papatipu Rūnanga in local Freshwater management via some of the Kaitiakitanga Mahinga Kai projects.	Next steps: Implement planned work programme. Maintain external relationships. Implement/support projects identified by Rūnanga.
Ōtūwharekai - work with key partners to improve lake outcomes and restore the mauri of Ōtūwharekai.	 On track	Environment Canterbury has continued to work with Te Rūnanga o Arowhenua, Te Ngāi Tūāhuriri Rūnanga and Te Taumutu Rūnanga, and Te Rūnanga o Ngāi Tahu over the past year to drive urgent on-the-ground action to halt and reverse the degradation of Ōtūwharekai ecology and values. We've also worked through the Ōtūwharekai Working Group, collaborating with landowners, Ashburton District Council, Fish and Game Council and central government agencies to drive action. Detail of this extensive work can be found on the Environment Canterbury website at Ōtūwharekai Ashburton Lakes Environment Canterbury (ecan.govt.nz).	A contractor was engaged to develop an Integrated Catchment Management Plan, as proposed by the Ōtūwharekai Working Group. The Plan is due in November 2023. Work continues to ensure all farms have the appropriate authorisations in place to achieve lake water quality outcomes.	Action next step: Implement response to Emerging Environmental Issue in Ōtūwharekai

	Q1 status	Q4 22/23 progress	Q1 23/24 progress	FY 23/24 next steps
Partnership programmes – maintain constructive relationships with partners and stakeholders, working with and on behalf of the community through implementing catchment-based work programmes and projects.	 On track	<p>Te Mōkihi programme: Discussions are ongoing with Waitaki District Council regarding a parcel of land near Ōmarama that is of interest for both the Te Manahuna Tūrangawaewae Project and Grazing Licences Project.</p> <p>Whaka-Ora Healthy Harbour programme: The Whaka-Ora Senior Managers Group and the Whaka-Ora Community Advisory Group met to set the strategic direction and progress the funding programme.</p> <p>Whakaora Te Waihora programme: the Whakaora Te Waikēkēwai project (led by Te Taumutu Rūnanga) progressed a variety of projects including a wetland design, and mātauranga Māori.</p>	<p>Te Mōkihi Programme: work is happening on consents for solar farming, re-consenting the Waitaki hydroelectricity scheme, and freedom camping controls. The Compliance, Monitoring and Enforcement Group met in September. Issues with non-compliance are still having a significant impact on the environment and collaborative work has begun to address these.</p> <p>Whaka-Ora Healthy Harbour Programme: Two years of funding and staff support for the Ki Uta Ki Tai sediment control and biodiversity enhancement of Foleys Creek is complete. A Whakaraupō mapping project has begun.</p> <p>Whakaora Te Waikēkēwai: Landowner agreements and procurement plans have progressed to fence and install riparian planting along Te Waikēkēwai/ Waikēkēwai Stream, and a wetland design for Te Repo Papatahōra was completed.</p>	<p>Deliver and report on progress through the governance structures in place for:</p> <ul style="list-style-type: none"> - Whakaraupō programme - Mackenzie alignment project - Whakaora Te Waihora programme - Whakaora Te Waikēkēwai project
Zone initiatives – deliver zone priority catchment projects	 On track	<p>A number of targeted on the ground projects were delivered throughout the year and 100% of committed funds were utilised & invoiced.</p>	<p>Delivery of priority projects in conjunction with other programmes of work. Work programme in place with more than 50% of the funds committed.</p>	<p>Deliver priority projects in conjunction with other programmes of work.</p>

Water and Land Financial Performance Reporting

	Actual vs Budget		Variance
	Sept Actual	Sept Budget	Variance from Budget
Revenue	8.34M	8.08M	0.26M
Expenditure	7.52M	9.33M	1.81M
Surplus/(Deficit)	0.81M	(1.25M)	2.07M

Financial Analysis:

Water and Land's surplus at the end of the first quarter is \$0.81M, which is \$2.07M favourable to budget. The variance is driven by an underspend across the programmes due to projects being in the early stage of development, seasonal work streams and vacancies. It is anticipated that this underspend will come back within expectations as the year progresses. The 3+9 forecast being finalised in the month of October 2023 will incorporate the adjusted phasing due to the issues noted above.

Partnership programmes are underspent due to procurement plans and contractual agreements still being developed. Once finalised and approved, the work can commence and it is expected to track on budget by the end of the financial year.

8.6. Rakaia Water Conservation Order Declaration Update

Water and Land Committee report

Date of meeting	Wednesday, 29 November 2023
Author	Dr Tim Davie, Director Science
Responsible Director	Dr Tim Davie, Director Science

Purpose

1. To update the Water and Land Committee on the recent declaration sought on matters related to the Rakaia Water Conservation Order (RWCO).

Recommendations

That the Water and Land Committee:

1. **Notes the update as to the Rakaia Water Conservation Order declaration proceedings and the reasons for the Canterbury Regional Council's withdrawal.**

Background

2. On 15 February 2023, the Canterbury Regional Council filed an application to the Environment Court seeking clarification on matters related to the Rakaia Water Conservation Order (1988).
3. The Environment Court declaration was sought because of a difference of opinion as to the scope of the Council's functions, powers, and duties with respect to the RWCO, between the named parties (being Manawa Energy Limited (Manawa), North Canterbury Fish and Game Council (Fish and Game) and the Environmental Defence Society (EDS)).
4. In addition to the named parties, a further eleven parties joined the Application. These parties were: The New Zealand Federation of Freshwater Anglers Incorporated; The New Zealand Salmon Anglers Association Incorporated; The Minister for the Environment; Barhill Chertsey Irrigation Limited; Dairy Holdings Limited; Rakaia Irrigation Limited; Central Plains Water Limited; Te Rūnanga o Ngāi Tahu; Te Rūnanga o Arowhenua; Te Taumutu Rūnanga; and Te Ngāi Tūāhuriri Rūnanga.
5. The matters concerned were broadly in relation to two issues (see Attachment 8.6.1 for the questions on which the declaration was sought):
 - Clarification as to the statutory duties of the Canterbury Regional Council in enforcing the Water Conservation Order; and
 - Clarification as to how water can be stored and classified as "stored water" in Lake Coleridge.

Declaration proceedings

6. The declaration put forward three statements that outlined Council's understanding of the extent of its role in enforcing the provisions of the RWCO, and one statement on Council's understanding of how the RWCO relates to water storage in Lake Coleridge.
7. At the request of the Environment Court, the parties entered into conferencing to explore which issues were agreed upon, and which weren't.
8. During conferencing, the Council and other parties presented information regarding the management of Lake Coleridge and the Rakaia River.
9. All parties to the Court proceedings came to an understanding that the statements regarding Council's role in enforcing the RWCO were correct. A summary of that position is that the Regional Council does have a role in enforcing the RWCO and that role is in writing plans and granting consents that are consistent with the terms of the RWCO (as is the case for all other WCO's within the region). The Regional Council then must monitor these consents to ensure they are correctly exercised.
10. In addition, the parties no longer wished to pursue a declaration regarding stored water.
11. Following this conferencing and the understanding reached amongst the parties, the Council made the decision to withdraw the application, as the questions had been answered. Continuing with Environment Court proceedings was not deemed a wise use of rate payer money, however, we have given a commitment to continue to engage with all parties to ensure good management of the Rakaia River.

Cost, compliance and communication

12. The decision being sought in this report does not have any cost, compliance, and communication implications.

Financial implications

13. The decision sought in this report does not have any cost implications.

Risk assessment and legal compliance

14. There are no risks associated with the decision being sought.

Engagement, Significance and Māori Participation

15. This report is not seeking a decision that would necessitate engagement with Ngāi Tahu, territorial authorities, or other key stakeholders. We will continue to engage with all parties over effective management of the Rakaia River.
16. This report complies with the Council's Engagement, Significance and Māori Participation Policy.

Consistency with council policy

17. This report does not require or imply a departure from agreed and notified Council policy.

Climate Change Impacts

18. Climate change does not have a material impact on the decision sought in this report.

Communication

19. The matter contained in this report is subject to an active communications plan.

Next steps

20. Await outcome of proceedings following filing of withdrawal.

Attachments

1. Rakaia WCO withdrawal notice [8.6.1 - 7 pages]

Legal review	Robyn Fitchett, General Counsel
Peer reviewers	

**IN THE ENVIRONMENT COURT OF NEW ZEALAND
CHRISTCHURCH REGISTRY**

**I TE KŌTI TAIAO O AOTEAROA
ŌTAUTAHU ROHE**

ENV-2023-CHC-007

UNDER the Resource Management Act 1991 (Act)

IN THE MATTER of an application for declarations under section 311 of the Act

AND

IN THE MATTER of the National Water Conservation (Rakaia River) Order 1988

BETWEEN **CANTERBURY REGIONAL COUNCIL**

Applicant

**NOTICE OF WITHDRAWAL OF PROCEEDING
10 November 2023**

Applicant's Solicitor
PO Box 4341 CHRISTCHURCH 8140
DX WX11179
Tel +64 3 379 7622
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WYNN WILLIAMS

Solicitor: P A C Maw
(philip.maw@wynnwilliams.co.nz)

AND MANAWA ENERGY LIMITED

First Respondent

AND NORTH CANTERBURY FISH AND GAME COUNCIL

Second Respondent

**AND ENVIRONMENTAL DEFENCE SOCIETY
INCORPORATED**

Third Respondent

MAY IT PLEASE THE COURT

- 1 Canterbury Regional Council (**Council**), the Applicant in ENV-2023-CHC-007, being an application for declarations under section 311 of the Resource Management Act 1991 (**RMA**) in relation to the National Water Conservation (Rakaia River) Order 1988 (**WCO**) (referred to collectively as the **Application**), gives notice of the withdrawal of the Application.

Background

- 2 The Council filed its Application on 15 February 2023. The questions pursued in the Application related to the Council's functions, duties and powers under the RMA, specifically in relation to:
- (a) The requirement for its regional plan(s) to not be inconsistent with the WCO pursuant to section 67(4)(a) of the RMA;
 - (b) The requirement, as a consent authority, to not grant a water permit, coastal permit, or discharge permit if the grant of that permit would be contrary to any restriction or prohibition or any other provision of the WCO pursuant to section 217(2)(a) of the RMA;
 - (c) The requirement, as a consent authority, to not grant a water permit, coastal permit, or discharge permit to discharge water or contaminants into water, unless the grant of any such permit or the combined effect of the grant of any such permit and of existing water permits and discharge permits and existing lawful discharges into the water or taking, use, damming, or diversion of the water is such that the provisions of the WCO can remain without change or variation, pursuant to section 217(b) of the RMA;
 - (d) The requirement, as a consent authority, in granting any water permit, coastal permit, or discharge permit to discharge water or contaminants into water, impose such conditions as are necessary to ensure that the provisions of the WCO are maintained, pursuant to section 217(2)(c) of the RMA;
 - (e) The duty to enforce the observance of the Canterbury Land and Water Regional Plan, pursuant to section 84(1) of the RMA;

- (f) Monitoring functions under section 35 of the RMA, specifically the Council's obligations with respect to monitoring the efficiency and effectiveness of policies, rules, or other methods in its policy statement or plan, under section 35(2)(b) and monitoring the exercise of the resource consents that have effect in its region, under section 35(2)(d) of the RMA.
- 3 The Council's Application also contained a question regarding the specific provisions of the WCO relating to "Stored Water". Specifically, the question regarding "Stored Water" in the Application reads:
- Does the WCO:*
- (a) *Prescribe any maximum volume of water that can be classified as Stored Water and stored within Lake Coleridge;*
- (b) *Require water classified as Stored Water on its entry into Lake Coleridge to be stored within Lake Coleridge in a manner that is physically separate from water that is not classified as Stored Water;*
- (c) *Preclude Stored Water from being stored by the operator of the Lake Coleridge Project below the extreme minimum operating level of 505.35 metres as specified in Resource Consent CRC173092.*
- 4 The rationale for the Council making the Application was explained in the Memorandum of Counsel filed in support of the Application, also dated 15 February 2023.
- 5 Specifically, the Council noted that it had been subject to a number of inquiries and greater scrutiny regarding the way in which the WCO was interpreted and implemented.¹ Further, when responding to those inquiries it had become clear that there was a difference in opinion as to the scope of the Council's functions, powers and duties with respect to the WCO, as between the named parties (being Manawa Energy Limited (**Manawa**), North Canterbury Fish and Game Council (**Fish and Game**) and the Environmental Defence Society (**EDS**)).² On that basis, the Council sought assistance from the Court by way of the Application.

¹ Memorandum of Counsel in support of Application for Declarations dated 15 February 2023 at [3].

² Memorandum of Counsel in support of Application for Declarations dated 15 February 2023 at [4].

Parties

- 6 In addition to Manawa, Fish and Game, and EDS, the following parties joined the Application as interested parties:
 - (a) The New Zealand Federation of Freshwater Anglers Incorporated;
 - (b) The New Zealand Salmon Anglers Association Incorporated;
 - (c) The Minister for the Environment;
 - (d) Barhill Chertsey Irrigation Limited;
 - (e) Dairy Holdings Limited;
 - (f) Rakaia Irrigation Limited;
 - (g) Central Plains Water Limited; and
 - (h) Te Rūnanga o Ngāi Tahu, Te Rūnanga o Arowhenua, Te Taumatu Rūnanga and Te Ngāi Tūāhuriri Rūnanga.
- 7 In addition, Manawa filed a notice supporting the Council's application for declarations, subject to amendments.
- 8 The New Zealand Federation of Freshwater Anglers Incorporated gave notice seeking alternative (additional) declarations.
- 9 Fish and Game and EDS jointly applied for alternative declarations.
- 10 The relevance of this is addressed further, below.

Process adopted by the Court

- 11 As noted above, other parties filed applications for alternative declarations, and this was addressed in the Court's Minute of 17 April 2023:³
 - (a) Manawa filed a notice supporting the Council's application for declarations, subject to amendments.
 - (b) New Zealand Federation of Freshwater Anglers Incorporated gave notice seeking alternative (additional) declarations.

³ Minute of the Environment Court regarding procedural matters dated 17 April 2023 at [5]-[7].

(c) Fish and Game and EDS jointly applied for alternative declarations.

- 12 The Council filed a Notice of Wish to be Heard in relation to those alternative declarations dated 29 March 2023.
- 13 However, the Court was unclear as to whether to treat the documents filed by Fish and Game and EDS, Manawa and New Zealand Federation of Freshwater Anglers Incorporated as new applications for declarations or as pertaining to the Council's application and alternative forms of declaratory orders.⁴
- 14 The issue was never finally determined by the Court, as the parties were ultimately directed to confer and (preferably) agree on the orders to be sought from the Court.⁵

Position of the Council

- 15 Over the last few months, a number of parties, including the Council, have shared information regarding the management of the Rakaia River. This information has assisted all parties, as they worked together in an attempt to reach agreement on the questions for declarations.
- 16 The Council is particularly grateful for the assistance of Mr Christensen and his guidance and oversight of the conferences between counsel and the parties. His assistance has been instrumental in facilitating the information sharing between the parties that has occurred to date.
- 17 Following the conferences and the sharing of information that has occurred, no other party disagrees that the Council has *at least* the functions, powers and duties set out in the questions that were the subject of the Council's Application. On this basis, there is no longer any disagreement between the parties as to the Council having the functions, powers and duties that the Council originally identified in its Application.
- 18 Further, counsel for the Council understands that the other parties do not wish to pursue the question regarding "Stored Water" being stored

⁴ Minute of the Environment Court regarding procedural matters dated 17 April 2023 at [8].

⁵ Minute of the Environment Court – Appointment of Special Advisor dated 26 May 2023 at [1].

below the minimum operating level of Lake Coleridge, as articulated in the Council's Application.

- 19 Accordingly, the Council does not consider it appropriate for it to remain as the Applicant in this proceeding and on that basis, gives notice of the withdrawal of its Application.
- 20 Finally, with respect to costs, as set out in the Council's Memorandum of 15 February 2023, the named parties agreed that, in the light of the public interest nature of the Application, it was appropriate that costs lie where they fall as between the named parties.⁶ The Council will consult with the other interested parties regarding costs and advise the Court accordingly.

Dated this 10th day of November 2023



P A C Maw / I F Edwards

Counsel for the Canterbury Regional Council

⁶ Memorandum of Counsel in support of Application for Declarations dated 15 February 2023 at [24].

9. Next Meeting

The next meeting of the Water and Land Committee is scheduled to be held on Wednesday, 13 March 2024. Any changes to this time will be publicly advertised and updated on the Environment Canterbury website.

10. Karakia Whakamutunga - Closing

The meeting will conclude with a karakia by a member of the Water and Land Committee.