

Three Waters Infrastructure and Environment Committee AGENDA

Notice of Meeting:

An ordinary meeting of the Three Waters Infrastructure and Environment Committee will be held on:

Date: Wednesday 26 February 2020
Time: 9.30am
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Membership

Chairperson	Pauline Cotter
Deputy Chairperson	Councillor James Daniels
Members	Mayor Lianne Dalziel
	Deputy Mayor Andrew Turner
	Councillor Jimmy Chen
	Councillor Catherine Chu
	Councillor Melanie Coker
	Councillor Mike Davidson
	Councillor Anne Galloway
	Councillor James Gough
	Councillor Yani Johanson
	Councillor Aaron Keown
	Councillor Sam MacDonald
	Councillor Phil Mauger
	Councillor Jake McLellan
	Councillor Tim Scandrett
	Councillor Sara Templeton

21 February 2020

Principal Advisor

David Adamson
General Manager City Services
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Committee and Hearings Advisor
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Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. If you require further information relating to any reports, please contact the person named on the report.

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Developing Resilience in the 21st Century

Strategic Framework

Whiria ngā whenu o ngā papa,
honoa ki te maurua tāuiki

Bind together the strands of each mat and join
together with the seams of respect and reciprocity

Ōtautahi-Christchurch is a city of opportunity for all

Open to new ideas, new people and new ways of doing things – a city where anything is possible

Principles

Being open,
transparent and
democratically
accountable

Promoting
equity, valuing
diversity and
fostering inclusion

Taking an inter-generational approach
to sustainable development,
prioritising the social, economic
and cultural wellbeing of
people and communities
and the quality of the
environment, now
and into the
future

Building on the
relationship with
Te Rūnanga o Ngāi Tahu
and the Te Hononga-Council
Papatipu Rūnanga partnership,
reflecting mutual understanding
and respect

Actively collaborating and
co-operating with other
local, regional
and national
organisations

Ensuring
the diversity
and interests of
our communities
across the city and the
district are reflected in
decision-making

Community Outcomes

Resilient communities

Strong sense of community
Active participation in civic life
Safe and healthy communities
Celebration of our identity
through arts, culture, heritage,
sport and recreation
Valuing the voices of all cultures
and ages (including children)

Liveable city

Vibrant and thriving city centre
Sustainable suburban and
rural centres
A well connected and accessible
city promoting active and
public transport
Sufficient supply of, and
access to, a range of housing
21st century garden city
we are proud to live in

Healthy environment

Healthy water bodies
High quality drinking water
Unique landscapes and
indigenous biodiversity are
valued and stewardship
exercised
Sustainable use of resources
and minimising waste

Prosperous economy

Great place for people, business
and investment
An inclusive, equitable economy
with broad-based prosperity
for all
A productive, adaptive and
resilient economic base
Modern and robust city
infrastructure and community
facilities

Strategic Priorities

**Enabling active
and connected
communities
to own their future**

**Meeting the challenge
of climate change
through every means
available**

**Ensuring a high quality
drinking water supply
that is safe and
sustainable**

**Accelerating the
momentum
the city needs**

**Ensuring rates are
affordable and
sustainable**

Ensuring we get core business done while delivering on our Strategic Priorities and achieving our Community Outcomes

Engagement with
the community and
partners

Strategies, Plans and
Partnerships

Long Term Plan
and Annual Plan

Our service delivery
approach

Monitoring and
reporting on our
progress

THREE WATERS INFRASTRUCTURE AND ENVIRONMENT COMMITTEE OF THE WHOLE - TERMS OF REFERENCE / NGĀ ĀRAHINA MAHINGA

Chair	Councillor Cotter
Deputy Chair	Councillor Daniels
Membership	The Mayor and All Councillors
Quorum	Half of the members if the number of members (including vacancies) is even, or a majority of members if the number of members (including vacancies) is odd.
Meeting Cycle	Monthly
Reports To	Council

Delegations

The Council delegates to the Three Waters Infrastructure and Environment Committee authority to monitor and make decisions on:

- Water supply, conservation and quality.
- Receive regular updates from the Water Management Zone Committees.
- Stormwater drainage including the Land Drainage Recovery Programme.
- Natural environment, including the waterways, aquifers, ecology and conservation of resources.
- Natural hazards protection, including flood protection and river control.
- Solid waste collection, processing and disposal including landfills.
- Sewage collection, treatment and disposal.
- Applications to the Biodiversity Fund.

Bylaws

The Council delegates to the Committee authority to:

- Oversee the development of new bylaws within the Committee's terms of reference, up to and including adopting draft bylaws for consultation.
- Oversee the review of the following bylaws, up to and including adopting draft bylaws for consultation.
 - Trade Waste Bylaw 2015
 - Waste Management Bylaw 2009
 - Water Supply, Wastewater and Stormwater Bylaw 2014

Limitations

- This Committee does not have the authority to set project budgets, identify preferred suppliers or award contracts. These powers remain with the Finance and Performance Committee.
- The general delegations to this Committee exclude any specific decision-making powers that are delegated to a Community Board, another Committee of Council or Joint Committee. Delegations to staff are set out in the delegations register.
- The Council retains the authority to adopt policies, strategies and bylaws.

Chairperson may refer urgent matters to the Council

As may be necessary from time to time, the Committee Chairperson is authorised to refer urgent matters to the Council for decision, where this Committee would ordinarily have considered the matter. In order to exercise this authority:

- The Committee Advisor must inform the Chairperson in writing the reasons why the referral is necessary.
- The Chairperson must then respond to the Committee Advisor in writing with their decision.
- If the Chairperson agrees to refer the report to the Council, the Council may then assume decision-making authority for that specific report.

Part A	Matters Requiring a Council Decision
Part B	Reports for Information
Part C	Decisions Under Delegation

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Karakia Timatanga

1. Apologies / Ngā Whakapāha

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

2. Declarations of Interest / Ngā Whakapuaki Aronga

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

3. Confirmation of Previous Minutes / Te Whakaāe o te hui o mua

That the minutes of the Three Waters Infrastructure and Environment Committee meeting held on [Wednesday, 18 December 2019](#) be confirmed (refer page 7).

4. Public Forum / Te Huinga Whānui

A period of up to 30 minutes may be available for people to speak for up to five minutes on any issue that is not the subject of a separate hearings process.

It is intended that the public forum session will be held at <Approximate Time>

- 4.1** Bex De Prospe will speak on behalf of Drinkable Rivers.NZ regarding the work of their organisation.

4.2 Stormwater Water Quality

Adrianna Hess will address the Committee regarding pervious concrete.

5. Deputations by Appointment / Ngā Huinga Whakaritenga

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

6. Petitions / Ngā Pākikitanga

There were no petitions received at the time the agenda was prepared.

Three Waters Infrastructure and Environment Committee OPEN MINUTES

Date: Wednesday 18 December 2019
Time: 9.33am
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Present

Chairperson
Deputy Chairperson
Members

Pauline Cotter
Councillor James Daniels
Mayor Lianne Dalziel
Deputy Mayor Andrew Turner
Councillor Jimmy Chen
Councillor Catherine Chu
Councillor Melanie Coker
Councillor Mike Davidson
Councillor Anne Galloway
Councillor James Gough
Councillor Yani Johanson
Councillor Aaron Keown
Councillor Sam MacDonald
Councillor Phil Mauger
Councillor Jake McLellan
Councillor Tim Scandrett
Councillor Sara Templeton

18 December 2019

Principal Advisor

David Adamson
General Manager City Services
Tel: 941 8235

David Corlett
Committee and Hearings Advisor
941 5421

Unconfirmed

Item 3 - Minutes of Previous Meeting 18/12/2019

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Part A **Matters Requiring a Council Decision**

Part B **Reports for Information**

Part C **Decisions Under Delegation**

Karakia Timatanga: Delivered by Councillor Cotter

The agenda was dealt with in the following order.

1. Apologies / Ngā Whakapāha

Part C

Committee Resolved TWIA/2019/00001

That the apologies from the Mayor and Councillors Scandrett and Keown for lateness, and Councillor Templeton for early departure be accepted.

Deputy Mayor/Councillor McLellan

Carried

2. Declarations of Interest / Ngā Whakapuaki Aronga

Part B

There were no declarations of interest recorded.

3. Public Forum / Te Huinga Whānui

Part B

3.1 Ōpāwaho /Heathcote River Stormwater

Genevieve Robinson addressed the Committee regarding stormwater entering the Ōpāwaho/Heathcote River and the accumulation of micro-plastics.

Mayor Dalziel joined the meeting at 9.38am during item 3.

4. Deputations by Appointment / Ngā Huinga Whakaritenga

Part B

4.1 Water Management

Professor Islay Marsden and Doctor Tim Lindley of Avon Heathcote Estuary Ihutahi Trust addressed the Committee regarding item 6 – Water Management Committees Update Report.

4.3 Water Management Committees Update Report-Community Waterways Partnership

Evan Smith addressed the Committee regarding item 6 – Water Management Committees Update Report.

Councillor Scandrett joined the meeting at 9.47am during item 4.3

Councillor Keown joined the meeting at 9.50am during item 4.3

4.2 Water Management and the Community Waterways Partnership

Annabelle Hasseleman addressed the Committee regarding item 6 – Water Management Committees Update Report.

4.4 Water Management

Bill Swallow and Bill Carroll addressed the Committee regarding item 6 – Water Management Committees Update Report.

4.5 Water Management

Dr Edward Challies, Senior Lecturer, Waterways Centre for Freshwater Management University of Canterbury & Lincoln University addressed the Committee regarding item 6 – Water Management Committees Update Report.

5. Presentation of Petitions / Ngā Pākikitanga

Part B

There was no presentation of petitions.

6. Water Management Zone Committees Update Report

Committee Comment

1. The Committee, noted the recommendation from the Christchurch-West Melton Zone Committee that the Council become a signatory to the Community Waterways Partnership Charter, and the strong support for this from the deputations received in relation to this report.
2. In response to the concern raised by the Chair of the Christchurch-West Melton Zone Committee relating to sediment from run-off the Committee requested information be included in the next Three Waters report on sediment control in the Port Hills.

Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Receive the information in the Water Management Zone Committees' update reports

Committee Resolved TWIA/2019/00002

Part C

That the Three Waters Infrastructure and Environment Committee:

1. Receive the information in the Water Management Zone Committees' update reports.
2. Notes the work of the Zone Committees.
3. Requests that Zone Committees formalise any recommendations to the Council and that Council staff include these for consideration in the Council/Committee meeting.

4. Notes the recommendation from the West Melton Zone Committee that the Council becomes a signatory to the Community Waterways Partnership Charter.
5. Directs staff to report back to the next meeting of the Three Waters Infrastructure and Environment Committee with advice, and any implications of signing the Community Waterways Partnership Charter.
6. Note that the Committee requests information be included in the next Three Waters report on sediment control in the Port Hills.

Councillor Daniels/Deputy Mayor

Carried

Councillor MacDonald left the meeting at 10.20am and returned at 10.24 during consideration of item 6.
Councillor Gough left the meeting at 10.24am and returned at 10.44am during consideration of item 6.
Councillor Chu left the meeting at 10.36am and returned at 10.40am during consideration of item 6.

The meeting adjourned at 11.04am and reconvened at 11.18am.

Councillor Templeton left the meeting at the adjournment.

7. Vodafone 5G Network

This item was deferred.

8. Three Waters bi-monthly report - December 2019

Committee Comment

1. The Committee noted the opportunity to develop an integrated management plan for the ecological health and water quality for the Ōpāwaho Heathcote River, and that a successful model has been the Whaka-ora Healthy Harbour plan (the catchment management plan for the Whakaraupō /Lyttelton Harbour).

Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Receive the three waters services update report for October and November 2019.

Committee Resolved TWIA/2019/00003

Part C

That the Three Waters Infrastructure and Environment Committee:

1. Receive the three waters services update report for October and November 2019.
2. Request staff, in early 2020, begin the scoping for the development of an integrated management plan for the ecological health and water quality for the Ōpāwaho Heathcote River, noting the successful model of the Whaka-ora Healthy Harbour plan.

Councillor Mauger/Councillor McLellan

Carried

Councillors Gough and MacDonald left the meeting at 12.01pm during item 8.

9. Closed Landfill Sites Risk Assessment

Committee Resolved TWIA/2019/00004

Part C (Original Staff recommendation accepted without change)

That the Three Waters Infrastructure and Environment Committee:

1. Endorse further investigation and assessment of closed landfill risks
 - a. Internally through established risk assessment methodology
 - b. In accordance with national project on closed landfill risk (Ministry for the Environment, Department of Conversation, and Environment Canterbury).
2. Note that the final value of the remediation work required will be determined by the scope of the work and will need to be considered as part of the draft Long-Term Plan.

Councillor Keown/Councillor Scandrett

Carried

Mayor Dalziel left the meeting at 12.24pm during item 9 and returned at 12.30pm during consideration of item 10.

Councillor Chu left the meeting at 12.29pm during item 9.

10. Bexley Closed Landfill - Foreshore Remediation Project

Committee Comment

1. There was some discussion about other landfill sites in the area and the need to clarify security of the two (one owned by Council and one to be transferred via LINZ) on Southshore. Staff were asked to prepare a memo on this.

Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Agree the containment option for the Bexley closed landfill foreshore remediation.
2. Recommend increased funding provision for the Landfill Aftercare (CPMS Project ID 161) in the Council's Annual Plan per the agreed option.
3. Request staff to identify offsets to the funding impact by deferring other rates funded renewals in preparation of the draft Annual Plan.

Committee Recommendation

Part C

That the Three Waters Infrastructure and Environment Committee:

1. Agree the containment option for the Bexley closed landfill foreshore remediation.
2. Recommend increased funding provision for the Landfill Aftercare (CPMS Project ID 161) in the Council's Annual Plan per the agreed option.
3. Request staff to identify offsets to the funding impact by deferring other rates funded renewals in preparation of the draft Annual Plan.

The division was declared **lost** by 6 votes to 7 votes the voting being as follows:

For: Chairperson Cotter, Mayor Dalziel, Deputy Mayor Turner, Councillor Coker,
Councillor Davidson and Councillor Galloway

Against: Councillor Daniels, Councillor Chen, Councillor Johanson, Councillor Keown,
Councillor Mauger, Councillor McLellan and Councillor Scandrett

Chairperson Cotter/Councillor Coker

Lost

Committee Resolved TWIA/2019/00005

That the report be left on the table while staff investigate other options including sheet piling.

Councillor McLellan/Councillor Scandrett

Carried

Councillor Davidson requested his vote against the resolution be recorded.

Mayor Dalziel left the meeting at 12.37pm and returned at 12.42pm during consideration of item 10.

Karakia Whakamutunga: Delivered by Councillor Daniels

Meeting concluded at 1.16pm.

CONFIRMED THIS 26TH DAY OF FEBRUARY 2020

**PAULINE COTTER
CHAIRPERSON**

7. Christchurch West Melton Water Management Zone Committee Minutes - 28 November 2019

Reference / Te Tohutoro: 20/20017

Presenter(s) / Te kaupāhō: Liz Ryley, Committee & Hearings Advisor

1. Purpose of Report / Te Pūtake Pūrongo

The Christchurch West Melton Water Management Zone Committee held a meeting on 28 November 2019 and is circulating the Minutes recorded to the Council for its information.

2. Recommendation to Three Waters Infrastructure and Environment Committee

That the Three Waters Infrastructure and Environment Committee receives the Minutes from the Christchurch West Melton Water Management Zone Committee meeting held 28 November 2019.

Attachments / Ngā Tāpirihanga

No.	Title	Page
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Signatories / Ngā Kaiwaitohu

Author	Liz Ryley - Committee Advisor
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Christchurch West Melton Water Management Zone Committee OPEN MINUTES

Date: Thursday 28 November 2019
Time: 6pm
Venue: Te Hapua: Halswell Centre, 341 Halswell Road -
Piharau Meeting Room

Present

Chairperson	Arapata Reuben - Tūāhuriri Rūnanga
Members	Kevin Brown - Community Representative
	Helen Caley - Community Representative
	Abbie Wilson - Community Representative
	Councillor Sophie McInnes - Selwyn District Council
	Councillor Phil Clearwater - Councillor Environment Canterbury
	Herewini Banks - Te Hapū o Ngāti Wheke/Rapaki
	Les Wanhalla - Te Taumutu Rūnanga

27 November 2019

Zone Facilitator
Tami Woods
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Principal Advisor
Diane Shelander
Senior Policy Analyst
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Liz Ryley
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www.ecan.govt.nz/news-and-notice/minutes/Pages/Default.aspx

Arapata Reuben opened the meeting with a Karakia/Timatanga.

Arapata welcomed new Council representatives to the Committee, Councillor McInnes, Selwyn District Council and Councillor Clearwater, Environment Canterbury.

Secretarial Note: On the day of the meeting, the City Council's Sustainability and Community Resilience Committee confirmed the appointment of Councillor James Daniels as representative on the Zone Committee, to replace Councillor Pauline Cotter.

The agenda was dealt with in the following order.

1. Apologies

Committee Resolved CWZC/2019/00026

That the apologies from Councillor Daniels, Annabelle Hasselman, Gareth Oddy and Carly Sluys, be accepted.

Arapata Reuben/Kevin Brown

Carried

Stormwater Superhero Businesses

In relation to Item 10 on the agenda, awards were presented to recognise the following *Stormwater Superhero* businesses.

- Resene Tower Junction;
- Hagley College;
- Tower Junction;
- Winstone Wallboards Limited;
- Canterbury University Waterways Centre; and
- CSP Galvanising Limited

8. Deputation - Nichola Wilkie

Nichola Wilkie gave a deputation to outline her concerns about the use of hazardous substances, including fertilisers, particularly in the Ōpāwaho/Heathcote River area. She felt that no authority has the right to interfere with natural resources and alter natural flora and fauna.

The Committee asked staff to follow up on the status of the use of Roundup by the Christchurch City Council, and consider communicating with Dr Pink, Medical Officer of Health.

2. Declarations of Interest

There were no declarations of interest recorded.

3. Confirmation of Previous Minutes

Committee Resolved CWZC/2019/00027

That the minutes of the Christchurch West Melton Water Management Zone Committee meeting held on Thursday, 22 August 2019 be confirmed.

Kevin Brown/Abbie Wilson

Carried

4. Matters Arising from the Minutes

An update on the Community Waterways Partnership Charter will be provided by Tami later in the meeting.

6. Identification of Urgent Items

Nil.

7. Identification of General Public Contributions

Nil.

9. Correspondence - Received from the Ministry of Health

Committee Comment

1. Tami referred to the letter from the Ministry of Health regarding the link between nitrate levels in drinking water and an increased risk of bowel cancer. She noted a key point from the letter that the Ministry's Chief Science Advisor, Dr Ian Town, has discussed the matter with the Prime Minister's Chief Science Advisor and would be talking with a number of experts, including Environment Canterbury staff about what further research is needed in this regard.

Committee Resolved CWZC/2019/00028

That the Christchurch West Melton Water Management Zone Committee:

1. Note the correspondence received from the Ministry of Health regarding the link between nitrate levels in drinking water and an increased risk of bowel cancer.

Kevin Brown/Arapata Reuben

Carried

10. Stormwater Superhero Businesses

Committee Comment

1. The Stormwater Superhero awards were presented earlier in the meeting.

Committee Resolved CWZC/2019/00029

That the Christchurch West Melton Water Management Zone Committee recognise the businesses above as *Stormwater Superheros* for their significant contribution to stormwater management by:

- a. Providing Industry leadership;
- b. Demonstrating the ability to develop, articulate and implement changes in stormwater management;

- c. Significantly contributing to the industry and wider community/industry partners; and/or
- d. Demonstrating high standards of ethical and business practises around stormwater.

Abbie Wilson/Helen Caley

Carried

11. Cashmere Stream and Port Hills Workshop Follow Up

Committee Comment

1. Tami and Shelley outlined the issues and outcomes from the workshop, and the potential actions for the Committee to consider.
2. The following points were initially discussed as actions or follow up:
 - a. District Plan controls over subdivisions.
 - b. Staff to provide information on District Plan controls and timing of the District Plan review or other opportunities to influence management of subdivisions and earthworks in the Port Hills moving forward.
 - c. Focus on communicating the things people could do at home.
 - d. Engage whole neighbourhoods – there are a lot of community groups on the river.
 - e. North America development controls are more effectively managing subdivision and earthworks – can we learn from them - staff to investigate whether we can hear from these experts.
 - f. Ongoing support for contractors' training on erosion and sediment control should be a key priority.
 - g. To ensure ongoing momentum on topic, a working group should be established.
 - h. The working group invite should be extended to Ken Rouse and the Ōpāwaho/Heathcote River Network.
 - i. Terms of Reference need to be established for the working group and dates set for meetings.

Committee Resolved CWZC/2019/00030

That the Christchurch West Melton Water Management Zone Committee:

1. Notes the:
 - a. Notes from the workshop (Attachment 1);
 - b. Record of post stick notes from participants (Attachment 2); and
2. Agrees to progress the potential actions in the agenda paper along with the additional discussion points (in 2) above in 2020; and establish a working group involving external parties to progress these with a Terms of Reference.

Les Wanhalla/Helen Caley

Carried

12. Immediate Steps Funding: Albert Stream Enhancement

Committee Comment

1. Kate Hunt, Environment Canterbury's Biodiversity Officer working on the Immediate Steps Funding programme was introduced to the meeting.
2. Lauren advised that the Biodiversity Working Group requires an indication of interest. Tami will contact members via email in this regard.

Committee Resolved CWZC/2019/00031

That the Christchurch West Melton Water Management Zone Committee:

1. Approves Immediate Steps Biodiversity (IMS) funding for Stage 3 Albert Stream Enhancement.

Arapata Reuben/Abbie Wilson

Carried

13. Facilitator's Update - 28 November 2019

Committee Comment

1. Les suggested that the other side of copper brake pads leaflets should cover key points about vehicle washing in correct areas.
2. Tami noted on 3 December an Ecology Inanga Day – detail to be emailed to Zone Committee members.
3. Councillors Clearwater and McInnes provided comments about their interests and involvement with the Zone Committee going forward.
4. As this was Herewini Banks' final meeting, the Zone Committee agreed that it has been a pleasure having Herewini working alongside them on the Committee.
5. The meeting schedule for 2020 as appended to the agenda was confirmed.
6. A quarterly update will be presented to the Christchurch City Council's Three Waters Infrastructure and Environment Committee on 18 December 2019. This will be available to view on live-stream at <http://councillive.ccc.govt.nz/live-stream>
7. The draft 2019 Annual Report was noted. An amendment will be made to include Councillor Daniels, replacing Councillor Cotter. The Committee requested the addition of workshops on erosion and sediment control be included in the key achievements; and under the Future Challenges, the nitrate/bowel cancer and update on the remit regarding copper brake pads.
8. The Draft Indicative Work Programme to February 2020 was noted. Still required are updates on Three Waters; estuary water quality monitoring and litter booms, and inclusion of a field trip to Ōtūkaikino, particularly for the new Councillors on the Committee
9. Continue discussion on copper brake pads in 2020, consider a more proactive approach with providers.

Committee Resolved CWZC/2019/00032

That the Christchurch West Melton Water Management Zone Committee:

1. Note the upcoming events and updates.

Arapata Reuben/Helen Caley

Carried

Arapata Reuben closed the meeting with a Karakia/Whakamutunga.

Meeting concluded at 8.10pm.

CONFIRMED THIS 27TH DAY OF FEBRUARY 2020

ARAPATA REUBEN
CHAIRPERSON

Attachment A Item 7

8. Banks Peninsula Water Management Zone Committee Minutes - 19 November 2019

Reference / Te Tohutoro: 20/19996

Presenter(s) / Te kaupāhō: Liz Ryley, Committee & Hearings Advisor

1. Purpose of Report / Te Pūtake Pūrongo

The Banks Peninsula Water Management Zone Committee held a meeting on 19 November 2019 and is circulating the Minutes recorded to the Council for its information.

2. Recommendation to Three Waters Infrastructure and Environment Committee

That the Three Waters Infrastructure and Environment Committee receives the Minutes from the Banks Peninsula Water Management Zone Committee meeting held 19 November 2019.

Attachments / Ngā Tāpirihanga

No.	Title	Page
A1	Minutes Banks Peninsula Water Management Zone Committee - 19 November 2019	24

Signatories / Ngā Kaiwaitohu

Author	Liz Ryley - Committee Advisor
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Banks Peninsula Water Management Zone Committee OPEN MINUTES

Date: Tuesday 19 November 2019
Time: 4.10pm
Venue: Orton Bradley Park, Marine Drive, Charteris Bay

Present

Chairperson	Dr Benita Wakefield - Te Rūnanga o Wairewa
Deputy	Gina Waibl - Community Representative
Chairperson	Rima Herber - Community Representative
Members	Elizabeth Macpherson - Community Representative
	Ben Manson - Community Representative
	Paula Smith - Community Representative
	Lan Pham - Councillor Environment Canterbury
	Manaia Cunningham - Te Rūnanga o Koukourārata
	Aurora Smith - Te Hapū o Ngāti Wheke/Rapaki

19 November 2019

Zone Facilitator
Shelley Washington
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Environment Canterbury

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Liz Ryley
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Christchurch City Council

Principal Advisor
Peter Kingsbury
Principal Advisor Natural
Resources
Tel: 941 8487
Christchurch City Council

In Attendance: Erana Riddell, Charlotte O'Sullivan, Brad Waldon-Gibbons, Annabel Barnden, Tina Bayer, Kate Hunt, Helen Greenep, Gill Jenkins, Karen Banwell, John Benn, Tim Davie, Alice West

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Manaia Cunningham opened the meeting with a Karakia/Timatanga.

The agenda was dealt with in the following order.

A round of introductions was undertaken. Erana was welcomed to the meeting.

Nature Agents – Diamond Harbour School

Ian Lloyd, the Principal, teacher and students from Diamond Harbour school were acknowledged and welcomed. A presentation was given by Kirsty Brennan, EOS Ecology about Nature Agents of Change, a long-term science participation programme being run in schools. In Canterbury, Nature Agents comprise 623 students, 52 teachers, with 1,350 students to be trained by the end of 2020.

Students of Diamond Harbour School outlined their Nature Agents project and displayed the signage they had created to have erected at Orton Bradley Park. The three signs related to “Welcome to Te Wharau Stream”, “Working Together” and “Is Your Stream Healthy”. The signs were illustrated by the students. The signs will attract people to find out more information. A fun day at Orton Bradley Park will be held soon to unveil the signs.

9. Nature Agents - Diamond Harbour School

Committee Comment

1. The Committee had received the presentation about the Nature Agents programme at Diamond Harbour School.
2. An invitation will be extended in relation to the Omaru Stream in Rapaki on 29 November 2019.

Committee Resolved BPZC/2019/00031

That the Banks Peninsula Water Management Zone Committee:

1. Receive the progress update on the Nature Agents programme.

Dr Benita Wakefield/Gina Waibl

Carried

3. Updates from Banks Peninsula Zone Committee Members

Members highlighted events/meetings/issues relevant to the Zone Committee, including the following points:-

Gina Waibl – reported the following:

- a) Thank you to the stall participants at Loudon Farm.
- b) Spotighting at the Wainui Stream following the last meeting highlighted the fact that the fish were plentiful.
- c) Attended a Beef and Lamb field day at Port Levy where the main theme was sheep breeding.
- d) Attended the Christchurch West Melton Water Management Zone Committee workshop on 24 October that dealt with Port Hills and Cashmere Catchment erosion and stability.

Lan Pham – Lan outlined her background and advised this is her second term as Councillor for Environment Canterbury. In that role she is a member of the Whaka-Ora Governance Group, and the Banks Peninsula and Christchurch Biosecurity Advisory Groups.

Manaia Cunningham – Manaia gave his apologies for missing recent meetings.

Paula Smith – Paula referred to Environment Canterbury's Proposed Plan Change 7, relating to resource management issues. It was identified that there were habitats of indigenous species. If there are high value habitats of indigenous freshwater species in those areas they require consent. On Banks Peninsula there are two habitats in Wairewa, at Okana and the Reynolds Valley.

Action: Check why these two sites have been chosen. Tim Davies advised one site was for kanakana and otherwise they are known sites of spawning.

Aurora Smith – Aurora advised that at the Orton Bradley Sculpture day she handed out leaflets to people attending, about copper free brake pads. Feedback received was "well done, keep up the good work".

A flyer for future use will be helpful.

Erana was invited to provide an update. She advised she was studying at the University of Canterbury, and was involved in Environment Canterbury's Youth Hui at Ōnuku Marae that was based on mahinga kai.

Action: Erana Riddell and Hannah Dunlop to report back to the Zone Committee with a plan of how Erana or other Youth Roopu members wish to interact with the Zone Committee.

Ben Manson – Ben advised that he and Harry would be attending a meeting in the Little River catchment and that local community members had been invited to discuss the rules for excluding stock out of waterways in the valley floor, that came out of the ZIPA and come into effect in January 2020.

Liz Macpherson reported the following:

- There is a lot of activity around water reform at the national level which may impact on water management in Banks Peninsula.
- The EDS has just released its second stage report on RMA reform, which may be of interest to Committee members – it suggests institutional change including a 'Water Commission'.
- The Waterways Research Centre has just appointed a new director, which may provide new opportunities for engagement and aligned strategy – we may wish to invite the new Director to a meeting next year.
- Liz advised she has caught up with Mark Christensen from the Banks Peninsula Conservation Trust who mentioned that work is progressing with the project to reforest Banks Peninsula and they would like to update us on this work and seek opportunities for collaboration (next year).

Benita Wakefield – Advised she has attended meetings relating to freshwater matters. She suggested receiving updates on recent submissions on biodiversity, Plan Change 7, the RMA, freshwater and climate change. This would be particularly in relation to freshwater matters.

Ian Luxford, Manager of Orton Bradley Park welcomed everyone to the park. He thanked the Zone Committee for funding that covered freshwater projects last year. He listed these as:

- the bottom end of Magnificent gully fenced and planting begun;
- wetland fenced for regeneration;
- working with the Christchurch City Council regarding fencing of 15 hectares of Hunters Gully, and working with our lessee regarding biodiversity;
- still issues in the upper valley but the main stream valley is almost completely fenced.

Ian invited any of the members to contact him if they wanted to walk up the valley at any time.

1. Apologies

Committee Decision

That the apologies from Andrew Turner and Garrick Thorn, and for lateness from Rima Herber, be accepted.

2. Declarations of Interest

There were no declarations of conflicts of interest recorded.

4. Confirmation of Previous Minutes

Committee Resolved BPZC/2019/00032

That the minutes of the Banks Peninsula Water Management Zone Committee meeting held on Tuesday, 20 August 2019 be confirmed, subject to noting that workshops were held on particular topics.

Gina Waibl/Paula Smith

Carried

5. Matters Arising from the Minutes

Nil.

6. Deputations by Appointment

There were no deputations by appointment.

7. Identification of Urgent Items

Nil.

8. Identification of General Public Contributions

Nil.

Rima Herber arrived at 5.22pm.

10. Water Quality and Ecosystem Health Monitoring

Committee Comment

1. A presentation was given at the meeting by Tina Bayer and Annabel Barnden, of the ECan Surface Water Science team, about monitoring results of the Environment Canterbury water quality and ecosystem health programme for the 2018-2019 year.
2. Regular water quality monitoring is undertaken on streams and Te Wairewa at monthly or quarterly intervals. Macroinvertebrates and habitat quality is monitored once a year in summer, and contact recreation monitoring includes beaches and Te Wairewa weekly over the summer months.
3. Tina and Annabel responded to queries of clarification. Paula requested the ECan Surface Water scientists look at the correlation between lake levels and water quality.
4. Discussion was held about the Committee identifying streams of importance for further investigation.
5. Zone Committee members reiterated their desire that the ECan surface water team include mahinga kai in their monitoring. Simple observations on watercress and fish seen can be carried out.

Committee Resolved BPZC/2019/00033

That the Banks Peninsula Water Management Zone Committee:

1. Receive the summary of the monitoring results of the Environment Canterbury water quality and ecosystem health programme for the 2018-2019 year.
2. Agree that these monitoring results form part of the knowledge base that informs decisions on any intervention projects to improve water quality and/or ecosystem health, including mahinga kai.
4. Agree that some form of mahinga kai measurements be incorporated as part of the existing freshwater monitoring programme.

Manaia Cunningham/Dr Benita Wakefield

Carried

11. Invertebrate Species in Banks Peninsula Streams

Committee Comment

1. Alice West, a postgraduate at University of Canterbury gave a summary of her Masters research she has been carrying out, on the distribution of regionally endemic stream invertebrates on Banks Peninsula. The study was to determine if species are actually rare or just data deficient.

Committee Resolved BPZC/2019/00034

That the Banks Peninsula Water Management Zone Committee:

1. Receive the summary of invertebrate species research.
2. Agree that these monitoring results form part of the knowledge base that informs decisions on any intervention projects to improve water quality and/or ecosystem health.

Paula Smith/Aurora Smith

Carried

Rima Herber – On her arrival at the meeting Rima provided a brief update of activities, on a Living Lakes Symposium, and post graduate conference papers.

Committee Resolved BPZC/2019/00035

That the Banks Peninsula Water Management Zone Committee:

1. Ask Wairewa Rūnanga member, Iaeen Cranwell, to attend a Zone Committee meeting to explain the opening and closing of Te Roto o Wairewa and the decision making processes.
2. Agreed this is an issue of interest to the wider community and that it is important to set realistic expectations. The decisions are made by the Rūnanga and CCC together.

Rima Herber/Aurora Smith

Carried

Adjournment taken from 6.40pm to 7pm.

12. Immediate Steps Potential Projects for 2020-2021

Committee Comment

1. Helen Greenep provided an update to the Committee on the potential projects for Immediate Steps funding for the 2020-2021 year.

Committee Resolved BPZC/2019/00036

That the Banks Peninsula Water Management Zone Committee:

1. Receive the overview of the potential projects for Immediate Steps for the 2020-2021 year.
2. Request staff to work on the projects as agreed. These were marked #4 through to #10 in the list presented by Helen Greenep, with any of these seven projects that are in the Whakaraupō Catchment to be prioritised within these.

Paula Smith/Manaia Cunningham

Carried

Committee Resolved BPZC/2019/00037

That the Banks Peninsula Water Management Zone Committee:

1. Agree to support the recommendation to go ahead with the Wairewa 3 Immediate Steps project that replaces the Goughs Bay project agreed to at the May 2019 Zone Committee meeting that cannot go ahead due to landowner removing funding application.

Dr Benita Wakefield/Lan Pham

Carried

13. Options for Undertaking Minimum and Environmental Flow Investigations

Committee Comment

1. Tim Davie, Environment Canterbury, provided an overview of the options for undertaking minimum and environmental flow investigations, and the costs and benefits of these options.

2. Options noted that could be considered to help with minimum flow regimes are:
 - 1.1 Survey the amount of water taken.
 - 1.2 Undertake habitat surveys, what is living instream, how much water the stream contains, how much water is required for stream health.
 - 1.3 Streams identified with consented takes, or many permitted takes, link back to what the water quality was like.

Committee Resolved BPZC/2019/00038

That the Banks Peninsula Water Management Zone Committee:

1. Receive the summary of options for undertaking minimum and environmental flow investigations and the costs and benefits of these options.
2. Agree to have an agenda item to discuss this topic in 2020 and defer the decision about further investigations to this Zone Committee meeting in 2020.

Manaia Cunningham/Gina Waibl

Carried

14. Facilitator's Update - 20 October 2019

Committee Comment

1. Gina referred to an amendment required under "Recent Events", Sculpture on the Peninsula event on 9 and 10 November, that she, Aurora, Benita and Karen had a joint Zone Committee/Whaka-Ora Healthy Harbour stall at the event.
2. Zone Committee meeting dates for 2020 – the dates were agreed to, other than 18 February when staff were unavailable, so changed to 11 February.

Committee Resolved BPZC/2019/00039

That the Banks Peninsula Water Management Zone Committee:

1. Receive the information in the Facilitator's report.

Dr Benita Wakefield/Paula Smith

Carried

Ben Manson departed at 8.26pm.

15. Workshop Topics for Discussion

Committee Comment

1. The Zone Committee members considered and prioritised the list of Immediate Steps projects that had been included at Item 12, Attachment A in the agenda.

Manaia Cunningham closed the meeting with a Karakia/Whakamutunga.

Meeting concluded at 8.45pm.

CONFIRMED THIS 11TH DAY OF FEBRUARY 2020

BENITA WAKEFIELD
CHAIRPERSON

Attachment A
Item 8

9. Draft submission on Taumata Arowai - the Water Services Regulator Bill

Reference / Te Tohutoro: 20/5080

Presenter(s) / Te kaupāhō: Helen Beaumont, Head of Three Waters and Waste

1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 The purpose of this report is for the Committee to consider the draft submission and approve the final submission on the Taumata Arowai – the Water Services Regulator Bill.

2. Executive Summary / Te Whakarāpopoto Matua

- 2.1 The Taumata Arowai Bill sets up an independent water regulator and is the next step in a broader programme of reform in the three waters sector.
- 2.2 The draft submission generally supports the intent of the Bill and makes recommendations on:
 - the potential imbalance of focus between drinking water regulation and broader stormwater and wastewater aspects from implementation of the Bill
 - the inclusion of board members with knowledge, experience and capability in the provision and management of drinking water services and infrastructure
 - the management of “non-drinking water” water quality matters remaining with the Ministry for the Environment.

3. Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Approve the Council submission on the Health (Drinking Water) Amendment Bill (Attachment A)
2. Approve that Council will appear in support of its submission to the Select Committee and be represented by (Council to decide the person at the meeting) and supported by the appropriate staff member

4. Context / Background / Te Horopaki

Issue or Opportunity / Ngā take, Ngā Whaihua rānei

- 4.1 Public submissions are being called for Taumata Arowai – the Water Services Regulator Bill (the Bill) https://www.parliament.nz/en/pb/sc/make-a-submission/document/52SCHE_SCF_BILL_93442/taumata-arowai-the-water-services-regulator-bill.
- 4.2 The Bill is part of a broader package of reforms to the three waters regulatory system.
- 4.3 Following the Government Inquiry into Havelock North Drinking Water, Cabinet agreed to a range of measures to address the Inquiry’s recommendations, including the establishment of a dedicated drinking water regulator to oversee the entire drinking water system and ensure New Zealand communities have access to safe and acceptable drinking water.

- 4.4 The main provisions in the Bill –
- 4.4.1 establish Taumata as a Crown agent with a dedicated, sustained focus on drinking water
 - 4.4.2 outline the objectives, functions, and operating principles to guide and inform how Taumata Arowai carries out its functions and duties
 - 4.4.3 establish a Māori Advisory Board to advise Taumata Arowai on Māori interests and knowledge, as they relate to the objectives, functions, and operating principles of Taumata Arowai, and the duties of the board
- 4.5 The Regulator’s detailed functions and powers are located in a separate Bill, the Water Services Bill, to be introduced in early 2020. The Water Services Bill will give effect to decisions to implement system-wide reforms to the regulation of drinking water and source water, and targeted reforms to improve the regulation and performance of wastewater and stormwater networks.
- 4.6 The closing date for submissions is 4 March 2020.

Decision Making Authority / Te Mana Whakatau

- 4.7 Council is not the ultimate decision maker under this process, rather Council can only provide comment via public submission.

Key submission points

- 4.8 There are a few issues which staff have concerns about in relation to the Bill, but in general the draft submission supports the intent of the Bill. The draft submission makes recommendations on the following:
- Supports an independent regulator for drinking water
 - Is concerned about the potential imbalance of focus between drinking water aspects and the stormwater and wastewater aspects from implementation of the Bill
 - Seeks the inclusion of board members with knowledge, experience and capability in the provision and management of drinking water services and infrastructure, for a regulator focused on water supply.
 - The management of “non-drinking water” water quality should remain with the Ministry for the Environment driving these reforms due to the interconnectedness of water quality, ecological and biodiversity outcomes and supports work to continue to improve these existing mechanisms
 - Seeks clear guidance for agencies on priorities and hierarchies to avoid the potential for competing objectives and functions of Taumata Arowai and existing legislation and government departments where they overlap.

Attachments / Ngā Tāpirihanga

No.	Title	Page
A ↓	Draft submission Taumata-Arowai - the Water Services Regulator Bill 2020	36

Confirmation of Statutory Compliance / Te Whakatūturutanga ā-Ture

Compliance with Statutory Decision-making Requirements (ss 76 - 81 Local Government Act 2002).

(a) This report contains:

- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

Signatories / Ngā Kaiwaitohu

Authors	Sarah Hemmingsen - Senior Advisor Ian Thomson - Special Counsel Governance
Approved By	Helen Beaumont - Head of Three Waters & Waste David Adamson - General Manager City Services

?? March 2020

Committee Secretariat
Health Committee
Parliament Buildings
Wellington

he@parliament.govt.nz

Christchurch City Council submission on the Taumata Arowai—the Water Services Regulator Bill

Introduction

1. Christchurch City Council (the Council) thanks the Select Committee for the opportunity to provide comment on the Taumata Arowai—the Water Services Regulator Bill (the Bill) creating a new regulatory body to oversee, administer, and enforce the drinking water regulatory system.
2. The Council wishes to appear in support of its submission. Council is happy to appear in person or via audio or videoconference. Council's representative will be the Mayor supported by a staff member.
3. The Council is supportive of changes that are focussed on enabling the drinking water regulatory regime to be more responsive to public safety issues.
4. The Council considers this Bill to be a component of the reforms ensuring safer drinking water for everyone and a raising of the bar for demonstrating safety and security. The Council looks forward to meaningful engagement with the Government as it continues its work on the broader reform of the three waters regime and improving the delivery of water services.
5. Council staff will continue to engage with officials from the Ministry of Health and the Department of Internal Affairs to contribute to the development of policy for the regulation and delivery of public drinking water supplies.

Submission

General comments

6. The Council supports an independent regulator being established as a Crown Entity for the purpose of more effectively administering the drinking water regulatory system, and notes Government officials considered a number of options for the organisational form of the new body. The Council agrees the degree of Ministerial independence and oversight is an important factor.
7. The Council notes the regulator is to be a Crown Agent housed within a Crown Entity, newly established for the purposes of the Crown Entities Act 2004. The Council agrees that having a separate governance board puts the regulator at arms-length from Ministers but suggests the Minister of Local Government be one of those responsible for administering the new legislation.

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TRIM: 20/57024

This would effectively recognise the interest local government has in the supply of drinking water, and the provision of community stormwater and wastewater services, without restricting the desired regulatory objectives

Imbalance between waters

8. The Bill's mandate for drinking water is extensively defined with the higher level of accountability component of enforcement, and consequently a higher level of compliance standard-setting, monitoring and compliance assessment than the objectives for stormwater and wastewater. For stormwater and wastewater (clause 10(e), (f)) the focus is on, and limited to, an advisory/engagement function for the Regulator, creating the potential for an imbalance of focus.
9. Consequently, there is a perception that the focus of the Regulator's establishment, operation and reporting will be on the drinking water aspects, and that the stormwater and wastewater aspects will not be equitably and effectively dealt with, even with respect to the provision of oversight, advice, leadership, coordination, communication and promotion of public understanding (which are referenced in clause 11(a)).
10. The potential imbalance of focus between drinking water aspects and the stormwater and wastewater aspects from implementation of the Bill is perhaps reflective of the inherent difference in the relationship between each of drinking water and stormwater and wastewater with the environment and community health. Drinking water draws from the environment and impacts on human health, whereas stormwater and wastewater discharges impact on the environment. Such fundamental differences perhaps suggest that the most appropriate means for ensuring quality of performance of processes and systems for managing each of drinking water (relative to community health performance/standards) and stormwater and wastewater (relative to environmental performance/standards) are also likely to be different.
11. Another challenge relates to the infrastructure differences between the three waters. Both water supply and wastewater are 100% engineered and piped systems and can be managed very tightly with human health the main focus.
12. However stormwater is only partially piped and engineered and it interfaces directly with the forces of nature and in particular local rain storms as well as with the wildlife, geology, landforms, groundwater and surface water flows from local and distant sources. Stormwater quality is also affected by land contamination and bed sediment contamination from historic human activities. Stormwater issues and solutions are very site specific and wide ranging, with the main focus being the management of flooding from urbanised surfaces and sustaining ecological health for which quite different contaminants are important. Ecological health depends on managing heavy metals to a much higher degree than is necessary for human health – and bacterial contamination (e.g. coliforms) is not a major issue for ecological health.

Overlap with existing agencies and legislative tools

13. There is an overlap in the objectives and functions of Taumata Arowai and existing legislation and government departments. There needs to be clear guidance for agencies on priorities and hierarchies to avoid the potential for competing objectives between legislation. Key relationships that need to be established by Taumata Arowai to undertake its role need to be clearly identified. For example, the need to ensure District Health Boards still maintain a responsive notifiable disease system.

14. While it is hoped they are not required, Taumata Arowai needs powers to investigate incidents and make recommendations of improvement that are binding for various agencies. These need to be similar to those that are available to the Director of Health.
15. For wastewater and stormwater, the focus of Taumata Arowai is on the environmental impacts of these waters. The Council considers that the objectives and functions of proposed in the Bill can be met through the existing RMA legislation tools including National Environmental Standards and National Policy Statements.
16. The recent government consultation on the Action for healthy waterways discussion document outlined proposals for a National Environmental Standard for Wastewater Discharges and Overflows as well as risk management plans and nationally-consistent measures for wastewater. For stormwater, risk management plans and nationally-consistent measures were also proposed alongside national guidance on stormwater policy and network management.
17. As the healthy waterways reforms are gathering momentum, Council considers the management of “non-drinking water” water quality should remain with the Ministry for the Environment driving these reforms due to the interconnectedness of water quality, ecological and biodiversity outcomes and supports work to continue to improve these existing mechanisms.

Te Mana o Te Wai

18. The Council supports the inclusion of Te Mana o te Wai in the Bill. However, it is unclear how the interpretation of Te Mana o te Wai and how it is given effect to in the Bill will align with the interpretation in the existing National Policy Statement for Freshwater Management and the draft National Policy Statement for Freshwater Management that was part of the Ministry for the Environment’s 2019 “Action for Healthy waterways proposals”.
19. While the purpose of not defining Te Mana o te Wai in the Bill allows flexibility and adaptation to change over time, there needs to be consistency between the National Policy Statement for Freshwater Management and the Bill, or clear guidance for agencies on priorities and hierarchies to avoid the potential for competing objectives between legislation.

Cost

20. The 30 September Cabinet paper (paragraph 82) states the Minister of Local Government considers “the legislation should equip the regulator with appropriate funding tools, should these be needed in future” and seeks “agreement to include provisions in the legislation that enable regulations to be made to recover costs from third parties, through fees, charges, and/or levies”. However, this is absent from the Bill and provides no indication of the costs that will be imposed, how they will be applied and when.
21. The regulations developed by Taumata Arowai will have cost implications for all drinking water suppliers, particularly due to the extended jurisdiction of the regulator to all drinking water supplies, except a domestic self-supplier. There also needs to be consideration relating to co-investment in infrastructure by central government where improvements or changes are required on grounds of ‘national good’.
22. The bill needs to be clear that when Taumata Arowai either creates new, or changes existing, legislation it is subject to a period of consultation and it is accompanied by a clear impact statement covering financial, cultural, environmental and social effects.

Clause 11C

23. As the drinking water standards are broader than just drinking water composition, Council suggests the clause is amended to:
develop standards that relate to drinking water ~~composition~~ and develop other regulatory requirements and measures necessary to fulfil its responsibilities under this or any other enactment; and

Clause 12

24. Council recommends that in addition to the proposed knowledge, experience and capability requirements of the Board, that the Board also has members appointed to the board that have skills and experience in the provision and management of drinking water services and infrastructure, for a regulator focused on water supply.
25. If the regulator remains focused on all three waters, in addition to the recommendation above, as the technical skills for the planning and management of stormwater and wastewater are different from drinking water, we recommend further requirements around board composition and skillset balance being introduced to the Bill to reduce the risk of a potential imbalance of focus between drinking water aspects and the stormwater and wastewater aspects, and/or by addressing the stormwater and wastewater aspects via a separate Bill or agency, such as the Environmental Protection Authority with suitably amended terms of reference.
26. However, Council is also concerned about the increased demand for specialised skill and knowledge created by the establishment of Taumata Arowai. Consideration needs to be given to addressing workforce issues arising from the formation of new agencies as the local government sector is a key source of the skills required.

Conclusion

27. The Council
- a. Supports an independent regulator for drinking water
 - b. Is concerned about the potential imbalance of focus between drinking water aspects and the stormwater and wastewater aspects from implementation of the Bill
 - c. Seeks clear guidance for agencies on priorities and hierarchies to avoid the potential for competing objectives and functions of Taumata Arowai and existing legislation and government departments where they overlap

Thank you for the opportunity to provide this submission.

For any clarification on points within this submission please contact Helen Beaumont (Head of Three Waters and Waste, phone 03 941 5190, email: helen.beaumont@ccc.govt.nz).

Yours faithfully

Lianne Dalziel

Mayor
Christchurch City Council

10. Bexley Closed Landfill - Foreshore Remediation Project

Reference / Te Tohutoro: 20/85152

Presenter(s) / Te kaupāhō: Ross Trotter, Grant Gillard, Mark Humphries, Rowan Latham

1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 To present the updated options for the remediation of the Bexley closed landfill on the estuary foreshore for the Committee to make a decision.

2. Executive Summary / Te Whakarāpopoto Matua

- 2.1 A review of at risk closed landfill sites has found significant damage to the capping of the former Bexley landfill with fill material being gradually exposed along the western side of the estuary.
- 2.2 Eight options for remediation have been assessed and three options are presented here:
Option 1: Containment – gravel, rock and boulders (preferred)
Option 2: Protection – bank engineering, buried geofabric and placed boulder armour
Option 3: Do nothing – wait for an estuary wide study into the effects of climate change and/or public consultation on the options.
- 2.3 Installation of steel sheet piling to form a physical barrier between landfill and the coast was ruled out due to the additional cost, sensitive nature of the foreshore area, installation challenges, environmental and ecological impacts and visual amenity.

3. Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Approve Option 1, Containment, be implemented for the Bexley closed landfill foreshore remediation.
2. Recommend the increased funding provision for the Landfill Aftercare (CPMS Project ID 161) be offset by deferring expenditure on the Inner City Waste Collection Project.
3. Recommend the identified offsets to the funding impact be considered as part of the Councils FY20/21 Annual Plan approval.

4. Context/Background / Te Horopaki

Issue or Opportunity / Ngā take, Ngā Whaihua rānei

- 4.1 Following the Christchurch earthquake sequence, a number of closed landfill sites have sustained structural damage. The Bexley landfill has suffered damage to the capping material.
- 4.2 Subsidence up to half a metre has occurred near the Bridge Street bridge area of the Ihutai-Avon-Heathcote estuary. Following this subsidence old landfill material (1970's and early 1980's era) is being gradually exposed by erosion along the western side of the estuary margin. Approximately 600 linear metres of foreshore requires remediation.
- 4.3 This poses a risk of landfill material dispersing and/or discharging into the estuary during a storm event.

Strategic Alignment / Te Rautaki Tīaroaro

- 4.4 Healthy Environment – by ensuring healthy waterways.
- 4.5 This report supports the [Council's Long Term Plan \(2018 - 2028\)](#):
- 4.5.1 Activity: Solid Waste
- Level of Service: 8.1.6 Consent compliance for closed Council landfills - No major or persistent breaches of consents.

Decision Making Authority / Te Mana Whakatau

- 4.6 Three Waters Infrastructure and Environment Committee

Previous Decisions / Ngā Whakatau o mua

- 4.7 The Three Waters Infrastructure and Environment Committee considered a report on this issue on 18 December 2019 and resolved that the report be left on the table while staff investigate other options including sheet piling.

Councillor McLellan/Councillor Scandrett Carried

Assessment of Significance and Engagement / Te Aromatawai Whakahirahira

- 4.8 The decision in this report is of medium significance in relation to the Christchurch City Council's Significance and Engagement Policy.
- 4.9 The level of significance was determined by considering the localised nature of the issue and the costs of remediation.

5. Options Analysis / Ngā Kōwhiringa Tātari

Options Considered / Ngā Kōwhiringa Whaiwhakaaro

- 5.1 The following reasonably practicable options were considered and are assessed in this report:
- A containment option with a cost estimate of \$1,458,000
 - A protection option with a cost estimate of \$3,420,309
 - A do nothing option – wait for an estuary wide study into the effects of climate change driven sea-level rise has been completed and/or public consultation on the options.
- 5.2 The following options were considered but ruled out due to potential risks and/or limited effectiveness:
- Installation of steel sheetpiling as a containment and protection option. Cost estimate of \$965,000 - \$2,423,000 for the sheet piling. There would be additional costs associated with site works and landscaping. Option not progressed due to sensitive nature of the foreshore area, installation challenges, environmental and ecological impacts and visual amenity (further explained in Attachment A).
 - An AP65 gravel lining containment option with a cost estimate of \$250,000 – fine grained material prone to erosion.
 - An unprotected geofabric containment option with a cost estimate of \$715,992 – Geofabric unsuitable due to degradation in UV light with potential to release polypropylene fibres/micro-plastics which may enter coastal marine environment.
 - An interlocking geoweb and gravel/rock containment option, not costed – gravel/rock would be prone to erosion.

- A sand bag protection option, not costed but estimated to be around \$9,000,000 – polyester bags prone to degradation, releasing micro-plastics which may enter coastal marine environment.

5.3 Option 1 - Preferred: Containment Option – AP20, AP100 and boulders

5.3.1 **Option Description:** The proposed rock containment work comprises of three layers of differing rock size (refer to Figure 1). The fine (smallest AP20) stone would be placed directly onto the existing bank and shore profile in a layer 150 millimetres (mm) thick. The second course layer comprising rocks AP100 would be placed in a 200mm thick layer on top. These two layers form a filter which contains the fine material from the landfill and prevents estuary water washing through. These layers provide the same filtering action as a plastic geofabric layer. The final armour layer comprises of rock boulders Dn50 = 350mm placed in two layers. This protects the under-layers from the wave and estuary flow energies. The placement of the rock layers would be carried out by using an excavator tracking either along the estuary edge or from within the landfill site, accessing from the upper banks. The majority of the work is tide dependant with the sections along the southern landfill edge only able to be worked on at a receding tide. Due to the small rock size, it is envisaged they will simply be tipped into position with minimal placement needed.

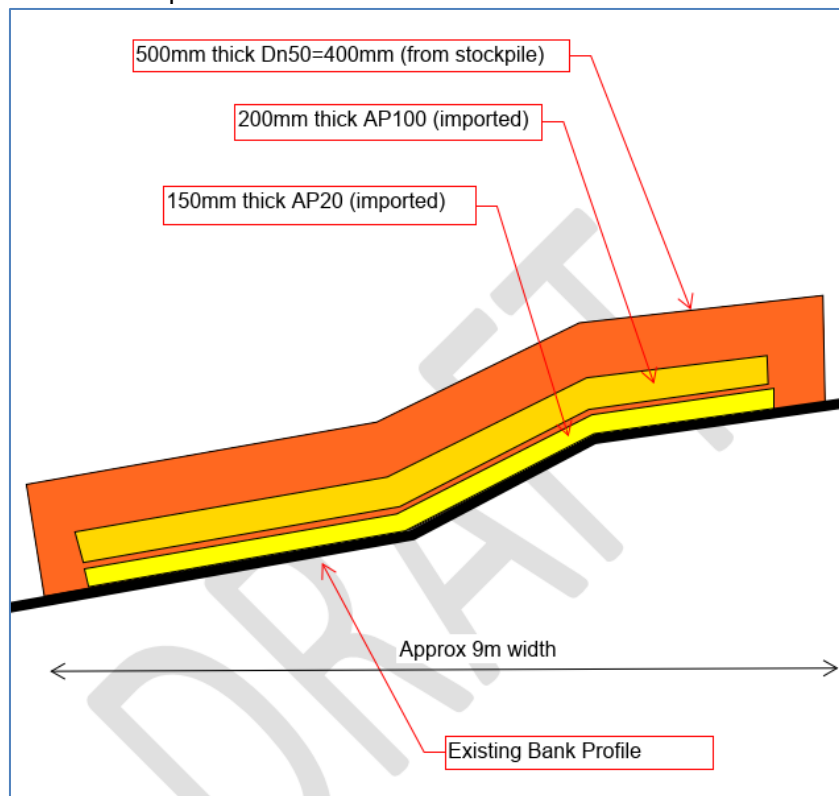


Figure 1. Typical edge containment detail.

5.3.2 Option Advantages

- Boulders are already stockpiled on site and AP20 and AP100 are readily available. Given most of the work can be done by tipping and grading rather than the individual boulder placement, the time frame for works would be short.
- The cost of \$1,458,000 is significantly less than the protection option, with an available offset relating to capital works expenditure for the Inner City Project in

FY20/21. This project is still being scoped, with the cost and timing of delivery to be confirmed. Any adjustment to be addressed in a future LTP once there is more certainty as to the available technology (total Project budget \$4.1m).

- Minimal disturbance in this sensitive coastal environment.

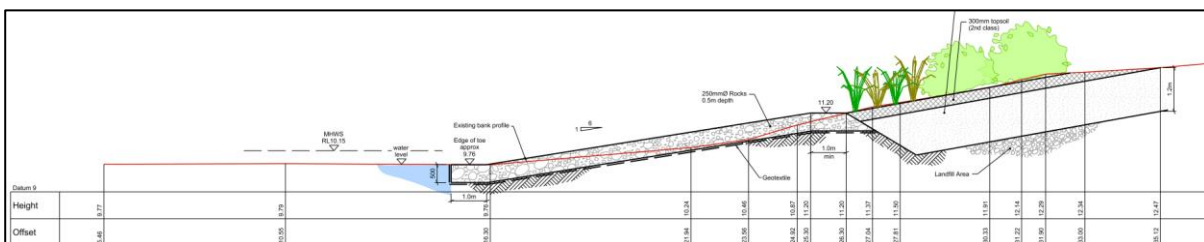
5.3.3 Option Disadvantages

- Maintenance will be needed to re-locate any armour stone or gravel/rock which may get damaged in larger storm events.
- Slopes parallel to the main channel water flow may have rocks displaced during increased flows >5 metres/second.
- Construction of the work may be slowed by the need to complete all three layers at one time to prevent loss of finer material when the tides are high.

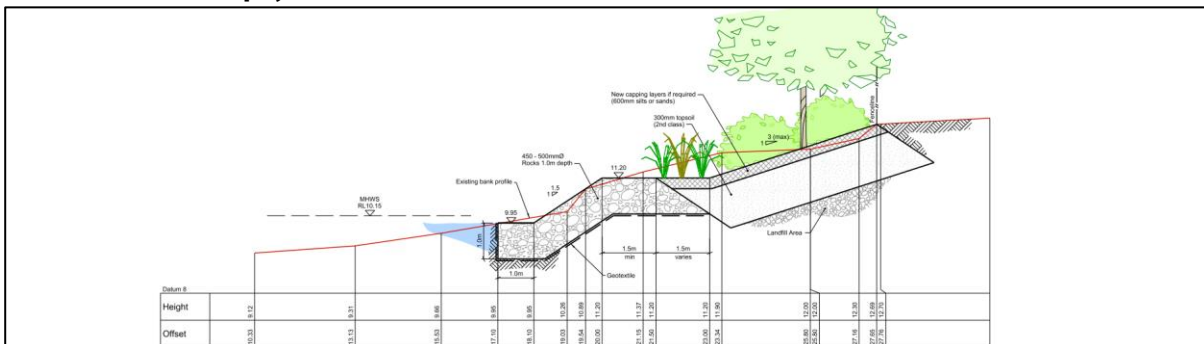
5.4 Option 2: - Protection Option – buried geofabric and placed boulder armour.

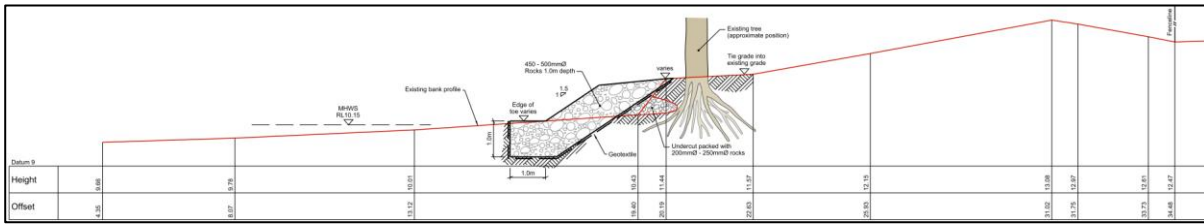
5.4.1 Option Description: The proposed remediation work aims to construct robust bank edge protection to prevent further loss of landfill material and provide protection to the landfill site from estuary actions for the foreseeable future. The edge profile of the landfill site varies along its length and due to its orientation is exposed to different wave energies from the estuary processes. The protection work has been split into three different zones to account for this variability:

Type	Description	Proposed Remediation
Zone 1	Gently sloping banks with low wave energy	Dn50 = 250mm rock revetment 500mm thick at 1:6 slope
Zone 2	Steep sloping banks with moderate to high wave energy	Dn50 = 500mm rock revetment 1000mm depth at 1:1.5 slope
Zone 3	Undercut banks with high wave energy	Dn50 = 500mm rock revetment 1000mm depth at 1:1.5 slope constructed around existing tree roots



Zone 1 – Gentle slope, little wave action





Zone 3 – Undercut banks under trees

Most of the remediation work will be carried out by using small excavators tracking along the estuary edge. The majority of the work is higher up the slopes so will not be tide dependant, however the lower slope excavations in Zone 1 and some of the Zone 2 & 3 can only be undertaken at low tide.

Each zone will be constructed using the existing bank profile as much as possible to minimise excavation of material. Any excavated, clean material will be re-used on the site to infill ground cracking or to build-up slopes to the correct profile.

The profiled banks will first have a layer of geotextile placed on their surface. The geotextile provides protection to the underlying material and prevents loss of small material or sediment under it from wave action. The geotextile also provides a key to help the rock revetment hold together. For Zone 3 work, the geotextile will be wrapped around the protruding tree roots and pushed into the voids to prevent damaging them prior to the rocks being placed.

The revetment will be constructed from basalt rock sourced from the recent Lyttelton to Sumner Road works stored at the adjacent Council depot. This rock has been laboratory tested to show it meets the durability and density requirements for a rock revetment of this nature. The size of the rock used is based on the anticipated wave energy and water level for each zone. Higher energy waves require larger rocks with more mass to ensure they remain in place and provide the necessary bank protection.

Each zone requires the rock revetment to extend below the existing estuary bed to reduce the effect of scour undermining. The slope of the revetments is set to minimise wave reflection and scour effects. Total cost of works is \$3,420,309.

5.4.2 Option Advantages

- the rock revetment would provide protection to the landfill site edges for the next 50 years.
- the risk of significant failure is low.

5.4.3 Option Disadvantages

- the high cost of the proposed works.

5.5 Option 3: - Do nothing in the short term.

5.5.1 Option Description

Await wider community consultation ahead of repairing the site. Await an estuary wide investigation into the impacts of climate change and sea level rise.

5.5.2 Option Advantages

- Ensure community acceptance of the proposed solution, ensure wider impacts of sea level rise are fully considered before investment in a potentially short term solution.

5.5.3 Option Disadvantages

Reputational risk of doing nothing and failure to contain damaged landfill materials

- Environmental impact and costs of any clean-up following storm events.

Analysis Criteria / Ngā Paearu Wetekina

5.6 Remediation effectiveness, longevity and price.

5.7 Risk of environmental damage.

Options Considerations / Te Whaiwhakaarotanga

5.8 Environmental considerations – Resource Consent requirements: The estuary is an area of significant natural value and this sensitive environment falls under the national priority to protect the natural character of the coastal environment. Any works therefore need to minimise disturbance and consenting of any structures can expect a high degree of scrutiny, including consideration of other options.

5.9 Discussions with the regulatory authority have commenced.

5.10 The estuary wide study into effects of sea-level rise, due to climate change, is underway within Council.

5.11 The national landfill erosion risk assessment project (Ministry for the Environment, Department of Conservation and Environment Canterbury)

6. Community Views and Preferences / Ngā mariu ā-Hāpori

6.1 The Coastal Burwood Community Board was briefed on this project in mid-2019. However, there was no community consultation undertaken at that time and the project paused in order for staff to undertake further investigations.

6.2 The communities around the estuary, and residents across the city, are very passionate about maintaining and protecting the unique estuarine environment. A project of this nature would likely generate a lot of public interest.

6.3 While consultation on this project is yet to occur, it may be useful to consider feedback received on the Earthquake Legacy Issues project from the previous Council term. The Earthquake Legacy Project addressed earthquake legacy issues in South New Brighton and Southshore, which included estuary edge erosion. Feedback from engagement on that project clearly showed the value residents placed on the natural environment, and the importance of protecting the estuary edge from erosion.

7. Legal Implications / Ngā Hīraunga ā-Ture

7.1 There is not a legal context, issue or implication relevant to this decision

7.2 This report has not been reviewed and approved by the Legal Services Unit

8. Risks / Ngā tūraru

8.1 Further coastal erosion as a result of storms and discharge of landfill materials into the Avon-Heathcote-Ihutai Estuary.

8.2 Reputational risk if nothing is done to contain the landfill materials.

9. Next Steps / Ngā mahinga ā-muri

9.1 Committee to advise preferred option.

10. Options Matrix / Te Poukapa

Issue Specific Criteria				
Criteria		Option 1 - Containment	Option 2 - Protection	Option 3 - Do nothing
Financial Implications	Cost to Implement	\$1,458,000	\$3,420,309	Nil
	Maintenance/Ongoing	\$15,000 annually	Minimal	Potential substantial costs of clean up
	Funding Source	The Landfill Aftercare Provision for works is planned via the Capital Programme at approximately \$150,000 per year (CPMS IDs 161 and 37832 Closed Landfill Aftercare). This is funded directly from Rates.	Per option 1	n/a
	Impact on Rates	None as recommend offset provided in FY20/21 through existing capital works provision for the Inner City Project.	Up to 0.66% Rates Increase as a one-off requirement for this option.	n/a
Environmental Impacts		Improvement on current status and containment of landfill materials entering the estuary	Long term protection from landfill materials entering estuary	Potential environmental harm due to failure to contain landfill materials
Reputational Impacts				Reputational risk of not responding / taking action

Statutory Criteria			
Criteria	Option 1 - Containment	Option 2 - Protection	Option 3 - Do Nothing
Impact on Mana Whenua	Increased protection of kai moana	Increased protection of kai moana	Potential negative impact on kai moana
Alignment to Council Plans & Policies	Yes	Yes	

Attachments / Ngā Tāpirihanga

No.	Title	Page
A ↓	Appendix A - Officers Reports	50
B ↓	Appendix B - Landfill extent Bexley foreshore	52

Confirmation of Statutory Compliance / Te Whakatūtutanga ā-Ture

Compliance with Statutory Decision-making Requirements (ss 76 - 81 Local Government Act 2002).

(a) This report contains:

- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

Signatories / Ngā Kaiwaitohu

Authors	Rowan Latham - Contract & Project Lead Grant Gillard - Landfill Aftercare Officer
Approved By	Ross Trotter - Manager Solid Waste Helen Beaumont - Head of Three Waters & Waste David Adamson - General Manager City Services

Appendix A – Officer Reports:

1. Request for comment – Engineering advice

Mark Humphries – Senior Structural Engineer

I've given some consideration to the sheet piling option as requested. This is an option that was discussed at the early stages of the project but was not developed further. The reasoning for not developing the sheet piled option is listed below:

1. The landfill appears to contain large bulky objects such as broken concrete, bricks and sections of brick walls, metal rods, car parts and chassis, metal drums etc. All of which are likely to present significant challenges to the installation of sheet piles through them. It is possible to try and remove these obstructions however this would involve significant costs and risk contamination of the estuary.
2. Vertical walls (sheet piled or concrete) are not desired along coastal, river or estuary edges for a number of reasons:
 - a. They reflect waves and cause scour and turbulence at the base of the wall. This will erode the estuary edge at the base of the wall and further out causing a deep channel. The pile depth of 6m should be enough to ensure the wall remains stable however this would need to be checked.
 - b. Flat vertical edges along coastlines and rivers can significantly affect the littoral system, which is the movement of sediment. The flatter edge can cause increase water velocities, reflections and scour which will impact surrounding areas of the estuary. The only way to try and understand this impact is to analyse is using either computer or physical models. This can be done by NIWA for a fee, and may not give accurate answers due to the significant number of variables involved.
3. Installation of the sheet piles will require a large piling rig which will need access from the (I assume) landfill side. The current bank is soft and undulating with significant tension cracks or unstable vertical edges. Piling rig access from this side would be difficult. Installation from the estuary edge would be difficult (due to the soft ground and tides) and would require resource consents.
4. A vertical sheet piled edge will prevent movement of wildlife to and from the estuary onto the landfill and its edges.
5. There may be visually aesthetic issues with the sheet piling from the opposite side of the estuary.

A sloped rock wall with embedded toe could be constructed in front of the sheet piling to address the scour, reflection, wildlife passage and aesthetic issues mentioned above (this was done on the section of seawall along Beachville Road for example). However if you were to do this then it would make the installation of the sheet piles unnecessary as we would be back to the present rock revetment option.

The current rock edge scheme is a solution that provides "containment" of the landfill rather than a "coastal protection" measure which I understand could be an issue with some residents along the south shore of the estuary edge.

Note that the \$965,000 quoted for the sheet pile installation is likely not to include for all the other cost items required for the whole project such as tree removal, site set-up, earthworks, sediment control works, onsite and offsite overheads etc. which are significant (see previous QS breakdowns).

2. Request for comment – consenting impacts:

Heather Holder-Lunn – Senior Natural Resources and Environment Planner

I've had a quick look at the attached report and Option 1 with the three different treatments for different wave energies – this is a sensible approach. Sheet piling would have a number of issues in terms of the longevity of the structure and construction effects on the estuary given the soft sediments. There are also a number of consenting hoops to jump through.

Best Option

The estuary is a sensitive environment and Council would need to demonstrate that the option of installing sheet piles was the best option in terms of remediating the landfill and minimising the disturbance of the estuary. Cost is also a consideration so if the absolutely best option was prohibitively expensive that would be a reason for choosing a different option (i.e. one that requires more disturbance). However this is clearly not the case here.

Best Practice Environmental Design & consultation with MKT and Ihutai Trust

If more than 100m³ of material to be deposited it is a Non-Complying Activity. Either way consultation with Iwi and Ihutai Trust would be required and they are unlikely to support a construction method that requires greater disturbance of the estuary. Council would also need to demonstrate that the option was sustainable in terms of longevity and maintenance. NZCPS discourages hard edge structures in coastal environments.

A coastal processes analysis would be required and these generally result in gently sloping batters to provide edge protection and an intertidal area (which is probably why you have Option 1). Erosion is an issue in the estuary especially during storm events which is another reason for soft edge protection. So in this regard we'd still have to provide protection in front of the sheet piling and it's hard to see why you'd do both when Option 1 will achieve the desired outcome – so it still doesn't meet the best practicable option test.

Disturbance of the Foreshore

The use of vehicles is a prohibited activity unless it is permitted by another part of the plan or a resource consent has been granted. The sediment in the estuary is particularly susceptible to compaction (and no longer sustains coastal fauna) and in some areas can take decades to regenerate.

Even where a resource consent has been granted Council would need to demonstrate that the disturbance was required and how it could be mitigated (back to justifying it as the best option).

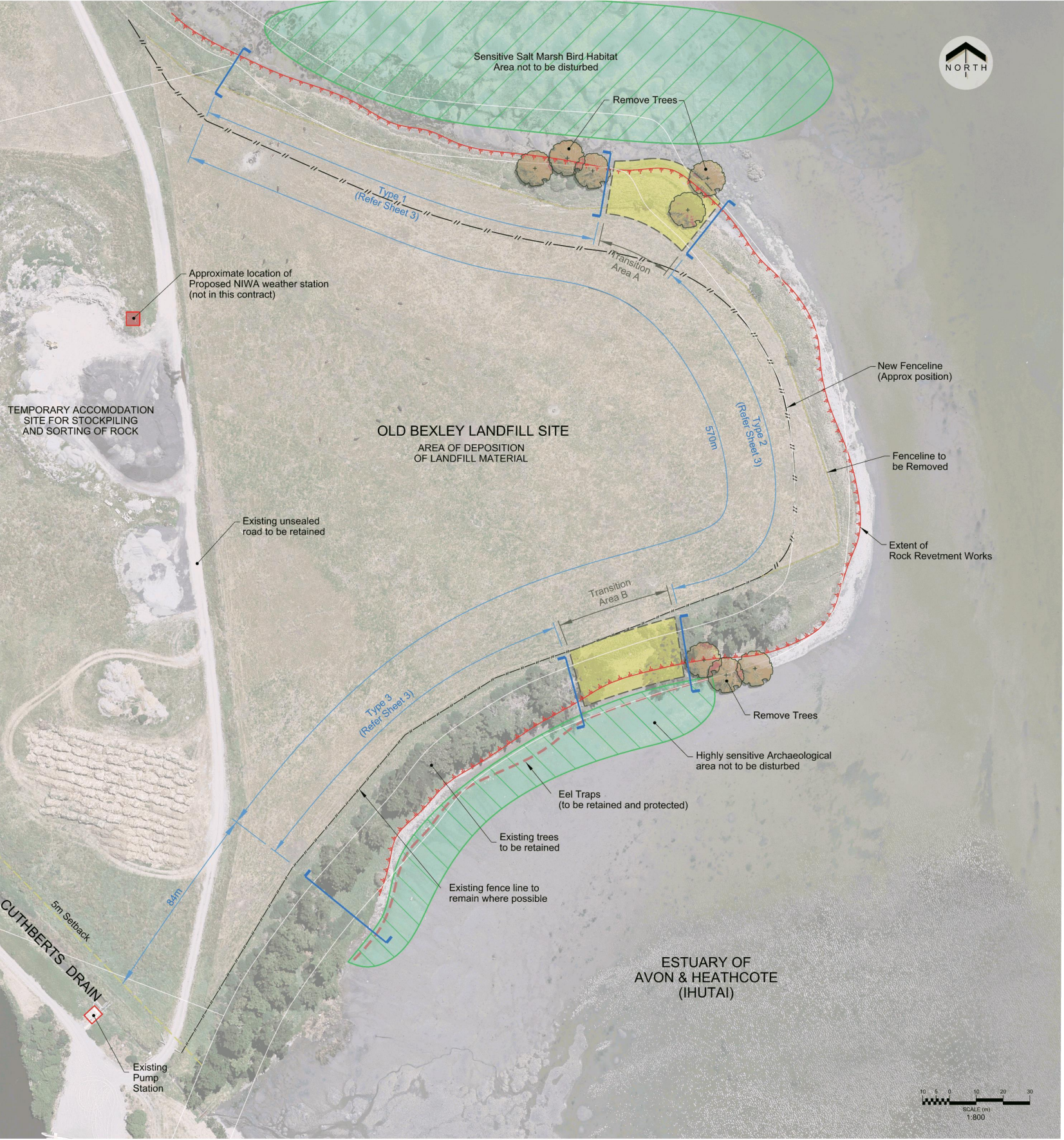
It's just not a very practical option in this environment and I think the consenting process would most likely require public notification because the key stakeholders are unlikely to support it when there are other better options that are less costly.



LOCALITY PLAN
Not to Scale

LEGEND	
	New Fenceline
	Existing Fenceline
	Existing Fenceline to be Removed
	Extent of Rock Revetment Works
	Extent of Eel Traps

NOTES	
Transition Area A	Evenly transition slope gradients from 1:6 to 1:1.15. Layer larger 500mmØ boulders over 250mmØ rocks midway through transition area
Transition Area B	Evenly transition slope gradients
Eel Traps	Leave undisturbed and work around in accordance with Resource Consent Conditions
Salt Marsh Area	Leave undisturbed and work around in accordance with Resource Consent Conditions



11. Three Waters and Waste Infrastructure and Environment Committee - Solid Waste - February

Reference / Te Tohutoro: 19/1488125

Presenter(s) / Te kaupāhō: Ross Trotter - Solid Waste Manager

1. Purpose of Report / Te Pūtake Pūrongo

- 1.1 To update Council on current Solid Waste activities and performance.

2. Executive Summary / Te Whakarāpopoto Matua

- 2.1 Council's Solid Waste team are currently completing the review of its Waste Minimisation and Management Plan, this plan will set the strategic direction for Council's solid waste programme for the next six years.
- 2.2 Council waste collection and processing contracts continue to perform despite a number of ongoing issues, particularly the deteriorating recycling commodities market.
- 2.3 Landfill operations at the Burwood Resource Recovery Park have been scaled back with closure scheduled for December 2020.
- 2.4 Landfill aftercare, including risks associated with the impacts of climate change, is ongoing.
- 2.5 A recently launched wheelie bin education programme has generated significant media interest and raised the profile of the need to reduce contamination in our recycling.

3. Staff Recommendations / Ngā Tūtohu

That the Three Waters Infrastructure and Environment Committee:

1. Receive the Solid Waste update report.

Attachments / Ngā Tāpirihanga

No.	Title	Page
A ↓	Three Waters and Waste Infrastructure and Environment Committee - Solid Waste - February 2020	55

Confirmation of Statutory Compliance / Te Whakatūtutanga ā-Ture

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(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

Signatories / Ngā Kaiwaitohu

Author	Helen Beaumont - Head of Three Waters & Waste
Approved By	Andrew Howe - Planning & Performance Advisor David Adamson - General Manager City Services

Item 11



THREE WATERS INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

SOLID WASTE

February 2020 Report

Christchurch City Council | February 2020

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PLANNING AND POLICY

Waste Management and Minimisation Plan

The Waste Minimisation Act (2008) requires territorial authorities to adopt a Waste Management and Minimisation Plan setting out the objectives, policies and methods for effective and efficient waste management and minimization. A review of the Plan is underway including:

- Blue sky thinking for development of the Plan – external report
- Consideration of draft Asset Management Plan
- Consideration of central government work programme:
 - Phasing out low value and hard to recycle plastics
 - Implementing product stewardship schemes for problem waste streams
 - Expanding the landfill levy and improving data
 - Analyzing need for investment in innovation and resource recovery infrastructure
- Responding to changes in the global markets for plastic and fibre – import restrictions and price drops

A review of our inner-city collection network and a feasibility assessment of alternative approaches has been scoped. This will respond to increased inner-city housing development and maximise diversion of waste from landfill.

COMPLIANCE AND QUALITY ASSURANCE

Health and Safety

Health and Safety reporting across the Solid Waste contract areas has been positive, with an increase in the reported number of near miss incidents.

Health and Safety Statistics - Month of December 2019	Totals	Land Drainage	Water Waste	Solid Waste	Transport	Intern
Near Misses	16	0	7	8	0	1
First aid injuries (FAI)	9	0	0	5	1	3
Medical Treatment Injuries (MTI)	1	0	0	0	1	0
Lost Time Injuries (LTI)	0	0	0	0	0	0
No. of days lost to LTIs	0	0	0	0	0	0
No. of hours worked	55,723	4,167	5,749	280	21,475	24,052
Health and Safety Statistics - Year to Date July 2019 - December 2019	Totals	Land Drainage	Water Waste	Solid Waste	Transport	Intern
Near Misses	244	8	84	81	56	15
First aid injuries (FAI)	54	3	4	33	3	11
Medical Treatment Injuries (MTI)	7	1	1	0	4	1
Lost Time Injuries (LTI)	6	0	2	3	1	0
No. of days lost to LTIs	57	0	52	4	1	0
No. of hours worked	606,625	36,935	166,614	100,191	160,582	142,303
LTIFR	9.9	0.0	12.0	29.9	6.2	0.0
MTIFR	21.4	27.1	18.0	29.9	31.1	7.0
TRIFR (LTI + MTI)	31.3	27.1	30.0	59.9	37.4	7.0

Organics Processing Plant

- Vehicle incidents continue to dominate figures – particularly with visitors to the facilities.
- Environment Canterbury have issued a non-compliance, no action required in November 2019, with an acute odour observed beyond the boundary in October. No action was required as Council continue to work with Environment Canterbury on a pilot to resolve odour issues in the Bromley area.

Kerbside collections

- Vehicle incidents and threatening behavior continue to be an issue.

FINANCIAL OVERVIEW

The numbers

Three Waters and Waste Unit Financial Report for month of December 2019									
Year to Date \$'000's			Activity Summary	Year End \$'000's					
Actual	Budget	Variance		Forecast	Budget	Variance	%		
4,473	4,909	436	Recyclable Materials Kerbside Collection	9,473	9,911	438	4.4%		
4,473	4,909	436	Recyclable Materials Collection & Processing	9,473	9,911	438	4.4%		
2,897	3,026	130	Residual Waste Kerbside Collection	6,320	6,095	(225)	-3.7%		
4,302	4,245	(57)	Residual Waste Disposal & Transport	8,724	8,737	12	0.1%		
179	209	30	Landfill Gas Capture & Treatment	413	417	4	0.9%		
(224)	(211)	13	Refuse Transfer Stations	(902)	(746)	156	21.0%		
(259)	(164)	95	Operation & Care of Closed Landfills	(578)	(346)	232	67.0%		
6,894	7,105	211	Residual Waste Collection & Disposal	13,976	14,156	180	1.3%		
3,827	3,778	(49)	Organics Kerbside Collection	7,682	7,636	(47)	-0.6%		
1,486	2,198	712	Organics Processing incl Composting Plant	4,176	4,438	262	5.9%		
5,313	5,876	663	Organic Material Collection & Composting	11,859	12,074	215	1.8%		
14,615	13,811	(804)	Collecting Wastewater from Properties	21,371	20,493	(877)	-4.3%		
14,615	13,811	(804)	Wastewater Collection	21,371	20,493	(877)	-4.3%		
4,102	2,490	(1,612)	Treat & Dispose of Wastewater Collected	6,555	4,574	(1,982)	-43.3%		
29	10	(20)	Laboratory Services - Wastewater	150	(18)	(168)	-918.5%		
4,131	2,500	(1,632)	Wastewater Treatment & Disposal	6,705	4,555	(2,150)	-47.2%		
13,135	12,373	(762)	Provide Quality Water to Properties	20,678	18,265	(2,413)	-13.2%		
13,135	12,373	(762)	Water Supply	20,678	18,265	(2,413)	-13.2%		
6,783	6,991	208	Storm Water Drainage	12,318	12,931	613	4.7%		
6,783	6,991	208	Stormwater Drainage	12,318	12,931	613	4.7%		
2,780	3,673	913	Flood Protection & Control Works	7,865	8,426	561	6.7%		
2,780	3,673	913	Flood Protection & Control Works	7,865	8,426	561	6.7%		
1,489	1,192	(297)	Three Waters Asset Management	2,532	2,357	(176)	-7.5%		
1,659	2,285	626	Plan/Prog Provision of Future Infrastructure	3,944	4,411	467	10.6%		
-	-	-	Horizontal Infrastructure	-	-	-	0.0%		
3,140	3,477	328	Three Waters Asset Mgmt & Planning	6,477	6,768	291	4.3%		
61,253	60,816	(438)		110,722	107,580	(3,142)			
Reconciliation to Controllable Net Cost									
()	-	()	Illegal Rubbish	()	-		0		
()	-	()	EQ - Infrastructure Rebuild Client Team	()	-		0		
(2,376)	(2,530)	(154)	Internal Cost Inputs	(3,502)	(4,839)	(1,337)	-0.2763384		
58,877	58,285	(591)	Unit Summary	107,220	102,741	(4,478)			

Recyclable materials Collection & Processing is lower than plan YTD as a result of lower professional service fees (\$195K) and lower promotions costs (\$127K).

Residual Waste Collection & Disposal is lower than plan YTD due to lower collection costs (\$302K), offset by lower than planned revenue (\$94K).

Organics Processing & Composing is lower than plan YTD due to lower than planned processing costs (\$680K).

Maintenance and operations contracts

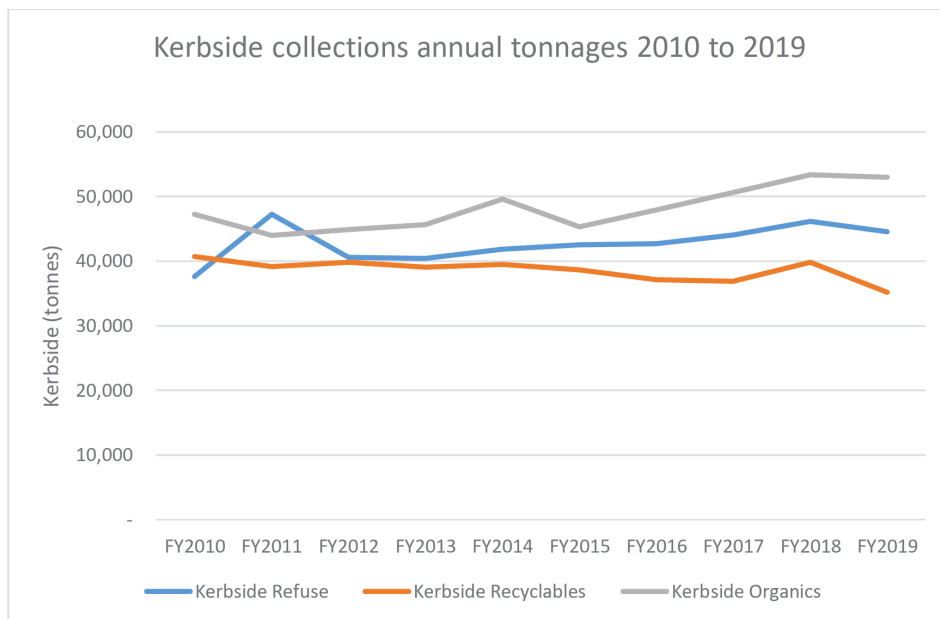
Recycling Collection & Processing contract is \$70K favorable to plan YTD.

Residual Waste Collection contract is \$302K favorable YTD, offset by increased disposal fees (\$49K).

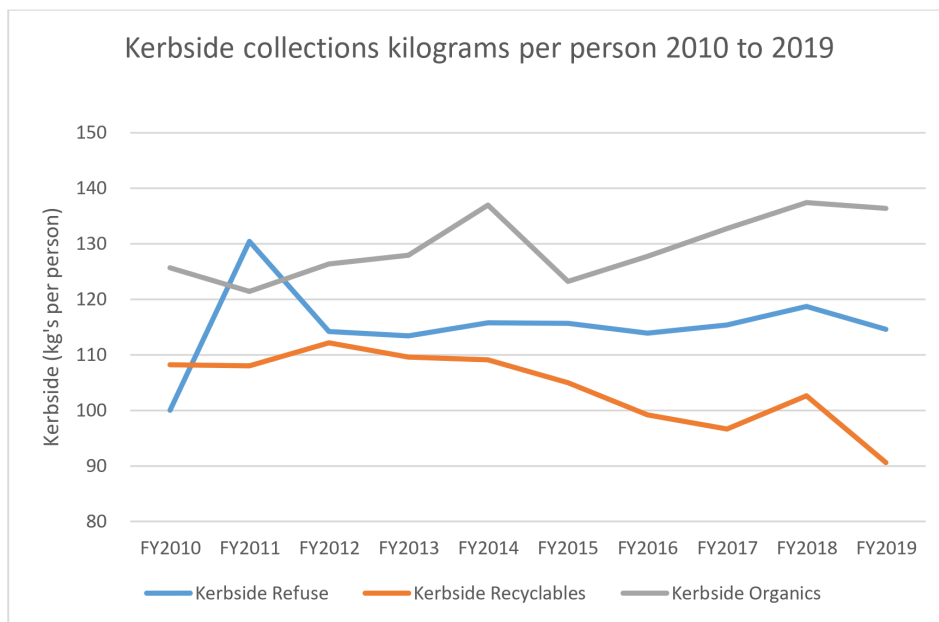
Organics Collection contract is \$92K unfavorable YTD, however the Organics processing contract is \$680K favorable to plan YTD.

SOLID WASTE

Waste trends



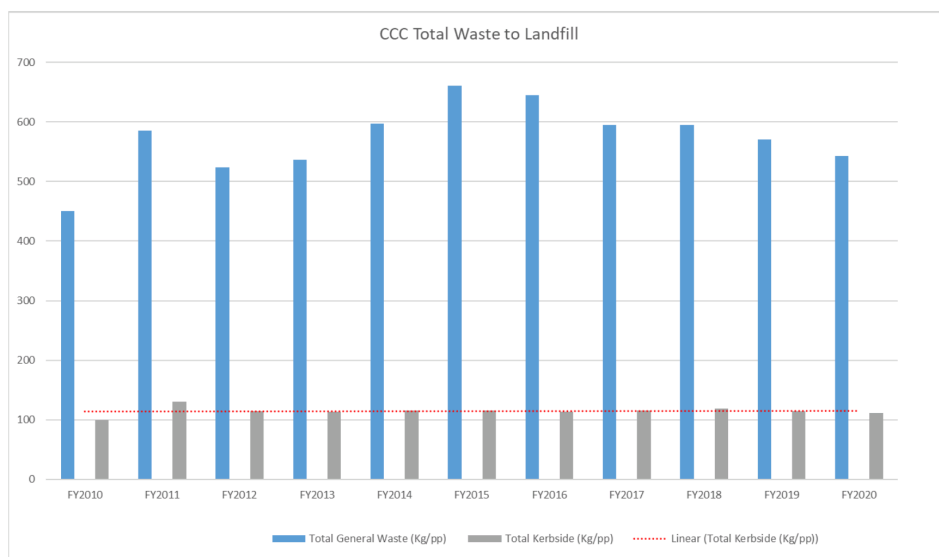
Graph 1



Graph 2

Kerbside tonnages

The above graphs show the trends in kerbside recycling with graph 1 showing total tonnage per annum and graph 2 showing kilogrammes per person per annum. There has been an encouraging trend in the last FY with reduction in all kerbside waste streams signalling consumer behaviour demanding less packaging and more reuse.



Graph 2

Total waste to landfill is also showing an encouraging trend with overall tonnages steadily reducing since 2015.

Object Category ID Year Month (Reported)	09.2018	10.2018	11.2018	12.2018	01.2019	02.2019	03.2019	04.2019	05.2019	06.2019	07.2019	08.2019	09.2019	10.2019	11.2019	12.2019	01.2020
Assisted Service	3	6	6	4	3	8	5	1	8	1	4	2	7	7	3	7	4
Bin Swap	31	43	36	29	47	29	38	25	41	38	33	34	35	36	40	35	53
Damaged Bin	322	534	566	444	751	524	524	522	760	611	651	673	603	728	757	791	824
Demolished Buildings Return Bins			1	7	9	8	19	10	20	19	16	18	15	19	17	14	8
Enhanced Service	75	124	132	146	179	114	95	77	97	64	55	66	95	194	178	132	160
New Service with Enhanced Labels	7	7	6	2	4	4	5	2		1	1		5	3	1	2	1
Inner City bag not collected	2		4	3	2	8	7	2	5	2	3	1	1	1	2	2	1
Bin Not Collected	439	692	716	771	822	768	655	672	730	777	1202	1007	1464	1368	1283	1235	981
Missing Bin	173	259	240	224	300	225	262	276	354	327	362	347	318	298	285	246	292
New Service	138	168	144	130	123	139	110	105	190	117	97	154	136	134	156	141	98
Non-compliant Contents/Tampering				2	6	1	3	22	33	21	32	29	29	29	27	26	40
Redeliver / Relocate Bins				6													
Re-rate Property				13	18	16	42	26	25	29	37	25	27	15	23	22	23
RFID Tags				21	88	59	60	340	95	107	114	55	157	246	310	324	290
Take back /Redeliver				12	69	30	43	71	102	73	83	73	125	102	86	77	102
Result	1190	1833	1851	1818	2442	1950	1879	2172	2495	2221	2735	2513	3054	3207	3201	3079	2903

Table 1

Customer requests – Hybris (Table 1)

Over the past six months we have seen an increase in the number of kerbside requests through Hybris and are working closely with Waste Management and MyCouncil to respond to these customers.

Organics Processing Plant

The Solid Waste Team are continuing to work collaboratively with Environment Canterbury on the Bromley Odour Project, with Environment Canterbury planning to engage with the community in the coming months.

Living Earth have recently invested in new screening equipment to substantially reduce contamination in the final compost product.

The Organic Processing Plant open day will take place on 21st March 2020 between 10am and 3pm.

Waste diversion initiatives

In response to high levels of contamination in the kerbside recycling service, our 12 week “Bin Good” recycling bin check programme commenced on 20th January 2020. The “bin good check team” are on the street, collecting data and engaging with residents. This is to reduce contamination in our kerbside recycling bins and improve quality in the recyclable product. Overall the response has been positive with media attention further enabling key messages to be communicated.

We continue to offer waste free workshops with Kate Meads – on Waste Free Parenting, Waste Free Living and Foodlovers Masterclass. These workshops were well attended and we also ran a short internal session for Council staff.

Bunnings Shirley signed on as our 7th Battery collection station on 24th January as part of the trial that runs until May 2020.

Kerbside collection

As of 27 January 2020, 463,120 wheelie bins have been fitted with RFID tags, representing a completion rate of 99.4 per cent, and 8,755 bins have been removed from circulation. Identifying the remaining untagged bins and improving the consistency of the RFID technology continue to be priorities.



The Wheelie Bin API integration with Waste Management continues to progress well with testing now being enacted with Council.

Organics collection continue to significantly increase over the summer months, with 5,802 properties requesting an enhanced service (240 litre bin)

Due to the high demand, and as part of the MyCouncil project, this service will be reviewed this year to explore how to best meet the needs of our residents with bin size availability.

Transfer stations – improvement actions

Metro

- Site improvement at Metro Place with odour monitoring equipment installed to assist with data for collaborative project with Environment Canterbury.
- Installed a new carpark for the educational area to improve Health and Safety, particularly for children on site.

Parkhouse

- Stage 1 of upgrading the stormwater first flush system and installing robust sump cages to capture and stop any solid material going into our stormwater system.
- Future Development plan being considered for traffic flow, additional diversion, and Canterbury Waste Services lease.

Styx Mill

- Improvement of site and new planting to meet Key Performance Indicators for the site and district plan consent requirements.
- Refurbishment of the pit wall thickeners to protect the main buildings structural walls from loaders.

Banks Peninsula

- Community Collection Points recycling skips – installed new lids on help reduce contamination.
- Hazardous Household Waste free drop off day at Barry's Bay Transfer Station scheduled for March.

EcoSort (materials recovery facility)

An updated ballistics screen is being installed by EcoCentral at the materials recovery facility (MRF) to assist with the quality of the paper product. In September 2019 a major soft plastics marketing campaign was launch to address the disposal of soft plastics in the yellow bins which continues to cause contamination issues. This lead to an initial decrease in soft plastics, however data provided by EcoCentral indicated this improvement did not last. A follow up campaign was launched in January 2020.

In November 2019 a hazardous waste awareness campaign was launched to address the growing number of gas bottles and vehicle batteries being disposed of in the yellow bin.

Burwood Resource Recovery Park

The Construction and Demolition Waste landfill established in response to the Christchurch's earthquake sequence is being progressively closed, with a plan to return it to a recreational area following closure in December 2020.

Key updates include:

- In December 2019, Council stopped accepting Construction and Demolition waste and Hydro Excavation waste, signaling a return to business as usual and development of alternative disposal sites.
- In response to a signaled price increase (\$20 to \$65 per tonne) to take effect in March 2020, large volumes of contaminated soils have been received, creating a spike in revenue.
- Staff currently developing a project scope with Department of Prime Minister and Cabinet (DPMC) National Emergency Management Authority (NEMA) and TransWaste for the transfer of the sensitive Earthquake material, including CTV and PGC buildings, currently stored at site D at Burwood landfill, to site B.
- Drilling of five new landfill gas wells to start in February 2020.
- Landfill gas treatment plant: Annual maintenance shut down scheduled for February 2020

Landfill Aftercare

Council staff are working on remedial options for a number of at risk former landfill sites, including sites at risk from the effects of sea level rise.

Current work includes:

- CCC Mapping, updating Smart Map with historic information relating to closed landfill activity.
- Investigation into options for remediating Le Bons Bay closed landfill on Banks Peninsula.
- Site remediation options for the Bexley closed landfill presented to Council.
- Working with Environment Canterbury to address closed landfill risks (Feb 2020).