

Waimakariri District Council

Utilities and Roading Committee

Agenda

Tuesday 14 July 2026

9am

Council Chambers
215 High Street
Rangiora

Members:

Deputy Mayor Philip Redmond (Chairperson)

Cr Tim Bartle

Cr Tim Fulton

Cr Niki Mealings

Cr Joan Ward

Mayor Dan Gordon (ex officio)



WAIMAKARIRI
DISTRICT COUNCIL

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A MEETING OF THE UTILITIES AND ROADING COMMITTEE WILL BE HELD IN THE COUNCIL CHAMBER, RANGIORA SERVICE CENTRE, 215 HIGH STREET, RANGIORA, ON TUESDAY 14 JULY 2026 AT 9AM.

Sarah Nichols
GOVERNANCE MANAGER

Recommendations in reports are not to be construed as
Council policy until adopted by the Council

BUSINESS

Page No

1 APOLOGIES

2 CONFLICTS OF INTEREST

Conflicts of interest (if any) to be reported for minuting.

3 CONFIRMATION OF MINUTES

3.1 Minutes of the meeting of the Utilities and Roding Committee held on Tuesday, 9 June 2026

10 – 14

RECOMMENDATION

THAT the Utilities and Roding Committee:

- (a) **Confirms** the circulated Minutes of the meeting of the Utilities and Roding Committee held on 9 June 2026 as a true and accurate record.

3.2 Matters Arising (From Minutes)

3.3 Notes of the Workshop of the Utilities and Roding Committee held on Tuesday, 9 June 2026

15 – 16

RECOMMENDATION

THAT the Utilities and Roding Committee:

- (a) **Receives** the notes of the Workshop of the Utilities and Roding Committee held on 9 June 2026.

4 DEPUTATION/PRESENTATIONS

Nil.

5 **REPORTS**

5.1 **Draft Waste Management and Minimisation Plan – Approval for Consultation – Kitty Waghorn (Solid Waste Asset Manager)**

17 – 218

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 260513115409.
- (b) **Initiates** the Special Consultative Procedure to review *Council's Waste Management and Minimisation Plan*.
- (c) **Approves** the attached proposed *draft Waste Management and Minimisation Plan* (260515117262[v2]) and its companion document the *Waste Assessment* (240207016720) for release for public consultation in accordance with the requirements of the Special Consultative Procedure outlined in the Local Government Act 2002.
- (d) **Appoints** three elected members to the Waste Plan Hearing Panel, as follows:
 - i. Councillor Mealings as Hearing Panel Chair
 - ii. Councillor
 - iii. Councillor
- (e) **Delegates** authority to the Hearing Panel to approve the final *draft Waste Management and Minimisation Plan* communications plan and feedback form.
- (f) **Notes** that the Hearing Panel may consider the scale of proposed changes to the serviced collection areas as part of the process to finalise the communications plan.
- (g) **Notes** the proposed period of consultation will be between from Wednesday 22 July to Sunday 23 August 2026.
- (h) **Notes** the expected hearing and deliberations timeframe is 14 to 18 September 2026.
- (i) **Notes** that any significant proposed changes will be included in the Long Term Plan consultation process.
- (j) **Circulates** report No. 260513115409 to the Community Boards for their information.

5.2 **Approval of Quarterly Monitoring Report for April to June 2026 – Gerard Cleary (General Manager Utilities and Roading), Kalley Simpson (3 Waters Manager) and Jane Eggleton (Project Planning and quality Team Leader)**

219 – 228

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 260623148873
- (b) **Approves** the attached quarterly monitoring report – water services delivery plan for submission to the Department of Internal Affairs.
- (c) **Notes** that a quarterly monitoring report will be provided for review each quarter prior to submitting to the Department of Internal Affairs.
- (d) **Notes** that all activities identified are either complete or on track, with the exception of the Water Services Business Plan which was due to be complete by 30th June 2026 but is now due for completion by 30th November 2026.

5.3 **Rangiora Stormwater Management Plan Capital Works Programme Delivery Strategy – Rob Kerr (Rangiora Eastern Link Programme Manager), Reuben Hunt (Senior Project Manager) and Jason Recker (Stormwater and Waterways Manager)**

229 – 236

RECOMMENDATION

THAT the Utilities and Rooding Committee:

- (a) **Receives** Report No. 260611139821
- (b) **Notes** the proposed programme of work set out in Table 3 of this report to develop a capital works programme delivery plan, at an estimated total cost of \$250,000, to be funded from Network Discharge Consent Implementation Works (PJ 102694.000.5123) which has a budget of \$250,000 allocated in 2026/27.
- (c) **Notes** that the main activities comprise stormwater quality monitoring, contaminant load model validation, and feasibility and options studies for the priority catchments and facilities identified in the SMP.
- (d) **Notes** that the Rangiora Stormwater Management Plan 2025-40 is the implementation document required under the Rangiora Stormwater Network Discharge Consent CRC262840, and that it identifies a programme of capital and operational works required to progressively improve stormwater discharges from the Rangiora reticulated network.
- (e) **Notes** that the SMP indicative capital works programme has been developed from monitoring, modelling, risk assessment and catchment-scale prioritisation, but that the assumptions, contaminant load modelling and project scopes now need to be validated through catchment-specific feasibility and options studies and a further report will be brought to Council in 2027/28 for consideration with the outcome from these studies.
- (f) **Notes** that an option is proposed to be included in the Private Development Agreement for a combined stormwater management area to serve the South East Rangiora Development Area B ODP south of Boys Road, Rangiora Eastern Link and the Newnham Street Industrial Area catchment, but that any Council commitment to this option would be subject to a later decision following feasibility assessment.

5.4 **Waikuku Settlement Zone Servicing and Chinnery's Road General Residential Zone – Jennifer McSloy (Development Manager) and Matt Pacon (Development Planning Manager)**

237 – 262

RECOMMENDATION

THAT the Utilities and Rooding Committee:

- (a) **Receives** Report No. 260615141953;
- (b) **Notes** that rezoning of Chinnery's Road GRZ and Waikuku Beach SETZ allows for increases in density, but servicing constraints and fragmented land ownership mean comprehensive infrastructure upgrades led by the Council are not financially feasible due to the high costs and low likelihood of full development occurring in the short to medium timeframe.
- (c) **Notes** that in the case of the Chinnery's Road GRZ, there will be servicing options and upgrades that can be undertaken on a site-by-site basis, at the cost of developers, that may enable some lots to be developed, without a comprehensive area wide suite of upgrades.
- (d) **Notes** that for the Waikuku Beach SETZ area, the current servicing does not allow for any further development in this area without upgrades which will be expensive and challenging for developers in the area to deliver. Water and sewer infrastructure will be due for renewals in several decades time (40-50 years), which may introduce an opportunity to increase water and sewer capacity as part of the renewals programme. However, this will not resolve stormwater or roading constraints.

- (e) **Notes** that it will be up to individual developers to make their own assessment of their costs to develop. For Chinnery's Road GRZ this will be expensive compared to many other areas in the district. For Waikuku Beach SETZ, these costs will be prohibitive and are likely to mean development is not financially feasible.
- (f) **Approves** this report and attachments are shared with landowners in both areas.

5.5 **Private Well Study Results for 2025 – Sophie Allen (Water Environment Advisor)**

263 – 303

RECOMMENDATION

THAT the Utilities and Roading Committee:

- (a) **Receives** Report No. 260629152405.
- (b) **Notes** the findings of the 2025 study, with no wells sampled that were above the nitrate-nitrogen Maximum Acceptable Value (MAV) set in the Drinking Water Standards for New Zealand (2022). Of the wells sampled, 67% of the wells in Eyreton, 57% in Cust, 29% in Carleton and 11% in Swannanoa sampling areas were above half of the MAV (5.65 mg/L).
- (c) **Notes** that the median nitrate concentration for the Cust and Eyreton sampling areas, as sampled in the 2025 study, exceed the limit of a median of 5.65 mg/L nitrate-nitrogen set in Plan Change 7 of the Canterbury Land and Water Regional Plan (Schedule 8) for private water supply wells, while Swannanoa and Carleton sampling areas did meet this limit.
- (d) **Notes** that Waimakariri District Council and Environment Canterbury staff will continue to raise awareness of the health impacts of high nitrates, and to encourage private well owners to test water regularly, including updating and wider distribution of the publication of a 'managing a private well supply' pamphlet for the District.
- (e) **Notes** that Waimakariri District Council proposes to repeat this study in spring 2026, with 10 wells in each of the four sampling areas (40 wells total). Well owners from the previous sample rounds will be approached for repeat annual sampling, to allow for assessment of trends over time.
- (f) **Notes** that statistically robust Mann Kendall trends for nitrate concentration over time are not able to be concluded from data for only seven years, or five years of data for Swannanoa and Carleton sampling areas.
- (g) **Circulates** this report to the Council and Community Boards for information.

6 **PORTFOLIO UPDATES**

6.1 **Roading – Deputy Mayor Philip Redmond**

6.2 **Drainage, Stockwater and Three Waters (Drinking Water, Sewer and Stormwater) – Councillor Tim Fulton**

6.3 **Solid Waste– Councillor Niki Mealings**

6.4 **Transport – Mayor Dan Gordon**

7 **REPORT REFERRED FROM THE RANGIORA-ASHLEY COMMUNITY BOARD**

7.1 **Approval of Blake Street Carpark Reconfiguration Plan – Heike Downie (Strategy and Centres Team Leader)**

(Refer to the attached copy of report Trim no. 260520120269 to the Rangiora-Ashley Community Board Meeting of 10 June 2026)

304 – 338

RECOMMENDATION

THAT the Utilities and Recreation Committee:

- (a) **Notes** that the Rangiora Ashley Community Board has approved the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470).
- (b) **Notes** that in December 2013 in the context of the Council approving funding the new North of High Laneway (Hunnibell Lane) and adjacent car parking (at 11 Blake Street) project, the Council supported staff developing a concept plan that provides a potential option for reconfiguring the wider at-grade Blake Street off-street public car parking area, in order to enhance this facility and generate an overall net gain in spaces.
- (c) **Notes** that the Blake Street Carpark Reconfiguration project is a “short term” implementation project committed in the Rangiora Town Centre Parking Management Plan, adopted by Council in 2025.
- (d) **Notes** that the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470) creates an additional 47 parking spaces (representing an increase of 28%, from 169 spaces to 216 spaces), which contributes considerably towards the modelled anticipated demand for an additional 60 parks by 2030 to ensure the Rangiora town centre continues to function well, as determined in the adopted Rangiora Town Centre Parking Management Plan.
- (e) **Approves** the installation of EV charging infrastructure at the northwestern location as shown in Attachment i (260521121470) (timing to be confirmed) and allocating four of the new spaces for mixed-use EV charging (allowing flexibility for both EV users and general parking when not actively charging).
- (f) **Approves** entering a License to Occupy with a third-party provider (most likely Meridian) for the site shown in Attachment i (260521121470), subject to finalisation of terms consistent with Council’s existing EV charging programme, and subject to confirming timeframes with a third-party provider.
- (g) **Notes** that the inclusion of EV charging infrastructure represents a continued implementation of Council’s existing EV charging programme (approved by Council in 2020) at an additional site and with no financial cost to Council, and that it is consistent with strategic directions for supporting and enabling such amenity committed in the adopted Integrated Transport Strategy and Parking Management Plan.
- (h) **Approves** the establishment of five mobility parking spaces within the Blake Street public carpark, noting this is an increase from four currently available in the public carpark, and noting that the additional existing one on-street mobility park on Blake Street remains as is.
- (i) **Notes** that targeted engagement on a draft Blake Street Carparking Reconfiguration Plan was undertaken over recent months with property owners within the block, with some tenants, as well as with the Waimakariri Access Group, and the Concept Plan has been updated to reflect relevant feedback.
- (j) **Notes** that the high-level indicative engineer’s estimate of the project cost to implement the Blake Street Carpark Reconfiguration Plan is approximately \$1,650,000 and that:
 - i. \$1,140,000 is available in the project’s budget across 2025/26 and 2026/27 (PJ 101777.000.5135 and PJ 102518.000.5133) - \$400,000 of which is being added through the 2026/27 Annual Plan adoption.
 - ii. it is proposed that other existing and related budgets are utilised to contribute to the cost of this project as recommended in (l) and (m) and detailed in section 7 of this report.
 - iii. if there is any residual budget shortfall following the physical works tender process (when final costs are more certain), staff will prepare appropriate recommendations to Council as part of the tender approval process, if required.

- (k) **Approves** the use of \$80,000 from the Town Centre Carpark (Ashley St) Layout Improvements budget (PJ 102427.000.5135 and 102427.000.5133) which is existing budget that is surplus to that project's costs.
- (l) **Approves** the use of \$295,000 from the Town Centre Upgrades budget (PJ 100359.000.5134) which is the total available and uncommitted in 2025/26 and 2026/27.
- (m) **Notes** that renewal of 108 metres of asbestos cement water main located within the carpark will be included in the physical works at an estimated cost of \$117,000; this component will be funded by the Rangiora Water Main Renewals budget (PJ 100002.000.5104) and is within the allocated budget for 2026/27 of \$837,600.
- (n) **Delegates** authority to the Chief Executive to approve any minor adjustments to the final Blake Street Carpark Reconfiguration Plan (as required) to support the physical works stage.
- (o) **Notes** that physical works associated with implementing the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470) are anticipated to commence in September and be completed by the end of November 2026.
- (p) **Notes** that it is anticipated that the demolition of the building at 13 Blake Street occurs in August (with the tender for this closing in late June), following the current tenants (North Canterbury Model Railway Club) vacating the premises by the end of June.

8 **REPORTS FOR INFORMATION FROM COMMUNITY BOARDS**

- 8.1 **Request to Approve Intersection Controls on Jelfs Road, Lilburne Street, Broad Road, McGifferts Road, Vaughan Street and Buller Street – Shane Binder (Senior Transportation Engineer) and Nithin Puthupparambil (Transportation Engineer)**
- 8.2 **Request to Approve Intersection Controls on Charles Street, Pentecost Road, Rowse Street, Bush Street, Banks Place and George Street – Shane Binder (Senior Transportation Engineer) and Nithin Puthupparambil (Transportation Engineer)**

339 – 357

RECOMMENDATION

THAT the Utilities and Recreation Committee:

- (a) **Receives** the information in items 8.1 and 8.2.

9 **QUESTIONS UNDER STANDING ORDERS**

10 **URGENT GENERAL BUSINESS**

11 **MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED**

In accordance with section 48(1) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act (or sections 6, 7 or 9 of the Official Information Act 1982, as the case may be), it is moved:

That the public be excluded from the following parts of the proceedings of this meeting:

11.1 Confirmation of Minutes 9 June 2026

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

Item No.	Subject	Reason for excluding the public	Grounds for excluding the public.
REPORTS			
11.1	Confirmation of Minutes 9 June 2026	Good reason to withhold exists under Section 7	To protect the privacy of natural persons and enabling the local authority to carry on without prejudice or disadvantage, negotiations (including commercial and industrial) negotiations and maintain legal professional privilege. LGOIMA Section 7 (2)(a), (g) and (i).

CLOSED MEETING

Refer to Public Excluded Agenda (Separate Document).

OPEN MEETING

NEXT MEETING

The next meeting of the Utilities and Roothing Committee is scheduled for Tuesday 11 August 2026 at 9am in the Council Chamber, Rangiora Service Centre, 215 High Street, Rangiora.

WAIMAKARIRI DISTRICT COUNCIL

MINUTES OF A MEETING OF THE UTILITIES AND ROADING COMMITTEE HELD IN THE COUNCIL CHAMBER, RANGIORA SERVICE CENTRE, 215 HIGH STREET, RANGIORA, ON TUESDAY, 9 JUNE 2026 AT 9 AM.

PRESENT:

Deputy Mayor P Redmond (Chairperson), Councillors T Bartle, T Fulton, N Mealings, and J Ward.

IN ATTENDANCE:

Councillors B Cairns, W Doody, B McLaren and S Powell (via audio/visual link).

J Millward (Chief Executive), G Cleary (General Manager Utilities and Roding), and K Rabe (Governance Advisor)

1. APOLOGIES

Moved: Deputy Mayor Redmond+

Seconded: Councillor Bartle

THAT the Utilities and Roding Committee:

- (a) **Received** and **sustained** an apology for leave of absence from Mayor D Gordon.

CARRIED

2. CONFLICTS OF INTEREST

No conflicts of interest were declared.

3. CONFIRMATION OF MINUTES

3.1 Minutes of the meeting of the Utilities and Roding Committee held on Tuesday, 12 May 2026

Moved: Councillor Mealings

Seconded: Councillor Bartle

THAT the Utilities and Roding Committee:

- (a) **Confirms** the circulated Minutes of the meeting of the Utilities and Roding Committee held on 12 May 2026 as a true and accurate record, subject to changing ARI to major and removal of the phrase “had created a basin-like *bathtub effect*”.

CARRIED

3.2 Matters Arising (From Minutes)

There were no matters arising from the minutes.

4. DEPUTATION/PRESENTATIONS

Nil.

5. REPORTS

Nil.

6. **PORTFOLIO UPDATES**

6.1 **Roading – Deputy Mayor Philip Redmond**

Focus areas for staff:

- Dig-outs and pavement repairs were continuing ahead of winter, assisted by the continuing unusually dry weather.
- Crushing metal ahead of remetalling of unsealed roads was being undertaken
- Asphalt resurfacing work had been completed on Percival Street / Victoria Street and also Tram Road / Island Road.
- Designs were about to begin for 2026/27 projects.

Roading Capital Projects:

- The Kaiapoi to Pineacres Cycleway construction was continuing. The contractor was currently working at the northern end of the path near the Kaiapoi Lakes. All work was due to be completed in July 2026.
- Kerb and Channel replacement work was progressing on Akaroa Street, Kaiapoi. Work was continuing on the western side of the road.
- Kerb and Channel replacement work was nearing completion on Seddon Street, Rangiora.
- Lees Valley – the installation of the concrete ford was progressing well. The concrete base had been poured and drift decks installed. Concrete was now curing.
- Installation of the electronic school variable speed signs was well progressed. Work had also begun on installing the static signs. All new speed limits were being loaded into the National Speed Limit Register. The new signs would remain covered until the speed limits come into effect. Communication was being prepared and would be shared ahead of the speed limits coming into effect. Now in the process of confirming the activation date.
- New Zealand Transport Agency (NZTA) funding confirmed for the next phase of the Rangiora Eastern Link project.

6.2 **Drainage, Stockwater and Three Waters (Drinking Water, Sewer and Stormwater) – Councillor Tim Fulton**

Drinking Water

- The Domain Road Bore 3, which supplied both Oxford Urban and Oxford Rural 2, had been successfully commissioned and was now operational.
- Mandeville bore development work on Bore 3 and Bore 4 on Two Chain Road had not been as successful as anticipated in terms of yield. A report would be brought to the Utilities and Rounding Committee in August to confirm next steps.

Wastewater

- Percival Street, Rangiora sewer main project was successfully completed ahead of schedule. Further on-site work was proposed for the next financial year to connect the newly installed laterals to the private sewer systems.
- The upgrade of inlet screens at Kaiapoi, Woodend, Waikuku Beach and Oxford Wastewater Treatment Plants (WWTPs) was on schedule for completion by the end of June.
- Desludging works at the Kaiapoi WWTP had commenced and were due for completion in August 2026.
- Tree removal work at the Kaiapoi WWTP had progressed well. The next step was to install a bund, which would be completed by the end of June 2026, and planting was proposed for July 2026.

- Staff were currently planning an Elected Member visit to the Kaiapoi WWTP; dates for this visit were yet to be confirmed.

Drainage / Stockwater

- Mandeville Resurgence Drainage Upgrade Stage 1A was progressing well and was due for completion by the end of June 2026; however, it may extend into July 2026. Flow and groundwater monitoring sites were proposed for installation shortly to assist with optioneering for the Stage 2 works.

6.3 **Solid Waste– Councillor Niki Mealings**

- Trialling battery disposal at Kaiapoi Service Centre in a purpose-built disposal container which has a built-in fire extinguisher. Batteries the main cause of fires in rubbish trucks.
- Larger batteries can still be taken to the transfer station at Southbrook, which also has a purpose-built battery disposal container for smaller batteries.
- Request that this information be widely circulated and advertised so residents know where and how to dispose of their batteries, including toothbrushes, watches, etc.

6.4 **Transport – Mayor Dan Gordon**

Mayor Gordon was not present to give an update on his portfolio.

7. **REPORT FOR INFORMATION**

7.1 **Request to Approve a Change of Intersection Controls on Heywards Road and Baynons Road**

Moved: Deputy Mayor Redmond

Seconded: Councillor Mealings

THAT the Utilities and Recreation Committee:

- (a) **Receives** the information in item 7.1.

CARRIED

8. **QUESTIONS UNDER STANDING ORDERS**

Nil.

9. **URGENT GENERAL BUSINESS**

Nil.

10. MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED

In accordance with section 48(1) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act (or sections 6, 7 or 9 of the Official Information Act 1982, as the case may be), it was moved:

Moved: Deputy Mayor Redmond

Seconded: Councillor Ward

That the public be excluded from the following parts of the proceedings of this meeting:

- 10.1 Middlebrook Culvert Remediation Options.
- 10.2 Denchs Road Footpath Request.
- 10.3 Contract 25/91 Bridge Maintenance – Scour Remediation – Makerikeri River Scope Addition Variation Report

The general subject of each matter to be considered while the public was excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution were as follows:

Item No.	Subject	Reason for excluding the public	Grounds for excluding the public.
REPORTS			
10.1	Middlebrook Culvert Remediation Options	Good reason to withhold exists under Section 7	To protect the privacy of natural persons and enabling the local authority to carry on without prejudice or disadvantage, negotiations (including commercial and industrial) negotiations and maintain legal professional privilege. LGOIMA Section 7 (2)(a), (g) and (i).
10.2	Denchs Road Footpath Request	Good reason to withhold exists under Section 7	
10.3	Assessment of Drinking Water Services	Good reason to withhold exists under Section 7	

CARRIED

CLOSED MEETING

The Public Excluded portion of the meeting commenced at 9.23am and concluded at 10.41am.

OPEN MEETING

Moved: Deputy Mayor Redmond

Seconded: Councillor Bartle

That the open meeting resumes, and the business discussed with the public excluded remains public excluded unless otherwise resolved in the individual resolutions.

CARRIED

11. NEXT MEETING

The next meeting of the Utilities and Roading Committee was scheduled for Tuesday, 14 July 2026, at 9am in the Council Chamber, Rangiora Service Centre, 215 High Street, Rangiora.

THERE BEING NO FURTHER BUSINESS, THE MEETING CONCLUDED AT 10.41AM.

CONFIRMED

Chairperson

Date

Workshop

(10.41am – 11.23am)
(Trim Ref: 260615141972)

- *Water Service Transition Overview – Kalley Simpson (3 Waters Manager), Paul Christensen (Finance Manager) and Jane Eggleton (Project Planning and Quality Team Leader) 45 mins*

Briefing

(11.23am – 12 noon)
(Trim Ref: 260615142169)

- *Chlorine Free Drinking Water Station – Caroline Fahey (Water and Wastewater Asset Manager) and Kalley Simpson (3 Waters Manager) 30mins*

WAIMAKARIRI DISTRICT COUNCIL

NOTES OF THE UTILITIES AND ROADING COMMITTEE WORKSHOP SESSION HELD IN THE COUNCIL CHAMBERS, HIGH STREET, RANGIORA, ON TUESDAY, 9 JUNE 2026, COMMENCING AT 10.41AM.

PRESENT:

Deputy Mayor Redmond (Chairperson), Councillors T Bartle, T Fulton, N Mealings and J Ward.

IN ATTENDANCE:

Councillors W Doody, W Doody and B McLaren.

J Millward (Chief Executive), G Cleary (General Manager Utilities and Roding), K Simpson (Three Waters Manager), P Christensen (Finance Manager), J Eggleton (Project Planning and Quality Team Leader) and K Rabe (Governance Adviser).

APOLOGIES

Mayor D Gordon.

1. Water Service Transition Overview– K Simpson, P Christensen and J Eggleton.

Trim Ref: 260615141990

Key Issues:

- Key Responsibilities of the establishment team:
 - Implementation of the Water Services Delivery Plan over two phases:
 - Phase 1: Preliminary establishment of IBU (July 2025 – June 2027)
 - Phase 2: Full implementation of IBU & ongoing deliverables (July 2027 onwards)
 - Setup systems, processes and reporting to comply with economic regulation for water and wastewater
 - Implement ring-fencing of IBU revenue and expenses for water, wastewater, and stormwater. This ensures that all funds and rates collected for these services are used solely for water service-related activities.
- All units interacting with water services will have a service level agreement (SLA) – much like an external contract.
- These SLAs will form the basis for the scope, service standards and associated costs between the unit and Water Services.
- The SLA's will set clear expectations to ensure the WWSU can meet the stringent ringfencing and reporting requirements that economic regulation will bring.

Water Services Strategy

- The WSS is updated and adopted every three years
- The WSS must demonstrate compliance with s18 financial principles, including ringfencing
- Purpose of WSS is to state intended activities and identify costs of / investment in water services
- WSS will include:
 - Water services activities and outcomes expected to be achieved
 - Strategic priorities and significant issues
 - Operational matters (incl intended levels of service provision)
 - Financial matters
 - Other matters – including significant forecasting assumptions / risks

Water Services Annual Report and Budget

- Annual report compares the intended activities and performance levels for providing water services, as set out in the water services strategy for the financial year, with the actual activities and performance levels
- Includes a statement of comprehensive revenue and expenses, cashflow, financial position and a funding impact statement in addition to capital expenditure budgeted and spent
- Information included in a water services annual report must be consistent with any applicable requirements or determinations as per information disclosure

Water Services Economic Regulation under the Commerce Act

- Information disclosure (ID) was a regulatory tool under the Commerce Act.
- The ID determination will apply to councils and water organisations that provide water and/or wastewater services otherwise known as a regulated supplier.
- The type of information required to be disclosed includes asset management plans, an annual report on what has been delivered, how much revenue has been received, how it has been spent, split up into detailed categories.

Questions/ Feedback:

- *With this new regime going to mean that the Unit will have to account for the costs of everything in real time instead of generalising the counting treatment across the schemes to date?*

Presently working with Financial Team to ensure that the services are going to meet the ring-fencing requirements of the Commerce Commission. We currently have good financial controls in place however there are probably some additional measures that are needed to be put in place to fully meet the new requirements.

- *Are staff liaising with other councils who opted to go with IBUs, sharing ideas and resources?*

Yes a working group has been set up across all the IBUs and meeting on a monthly basis as well as meeting with individuals when there is a need to focus on different information.

- *Will the Council audit Water Services as part of its BAU or would Water Services be audited separately, and who would be responsible for those costs?*

Water Strategy is not required to be audited and compared with the long term plan which is required to be audited. As the Council opted for IBU and the overall council includes water services there will be some auditing of water services but not of the strategy document itself.

- There will be higher audit fees.

There will be additional regulation and further changes made both by Taumata Arowai and the Commerce Commission with an additional rate to be paid, however if you look at an equal sized CCO out audit fees would be less because of some synergies in-house which the Council would cover for the audit.

- This has been an expensive exercise for all councils in New Zealand but out costs should work out to be third cheapest in New Zealand.

THERE BEING NO FURTHER BUSINESS, THE WORKSHOP CONCLUDED AT 11.23AM.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION****FILE NO and TRIM NO:** SHW-13-06 / 260513115409**REPORT TO:** UTILITIES & ROADING COMMITTEE**DATE OF MEETING:** 14 July 2026**AUTHOR(S):** Kitty Waghorn, Solid Waste Asset Manager**SUBJECT:** Draft Waste Management & Minimisation Plan: Approval for Consultation**ENDORSED BY:**
(for Reports to Council,
Committees or Boards)


General Manager



Chief Executive
1. SUMMARY

- 1.1. The purpose of this report is to seek approval from the Utilities & Roading Committee to consult with the community about the Draft Waste Management and Minimisation Plan (WMMP).
- 1.2. A Waste Assessment was prepared in 2022 by waste consultants Eunomia, which determined we should review our 2018 WMMP. Eunomia undertook the review with input from Council staff and the Solid and Hazardous Waste Working Party. The final Waste Assessment, which included the outcomes of the review, was adopted by Council on 2 April 2024.
- 1.3. At that meeting, Council directed staff to prepare a new draft Waste Management & Minimisation Plan. Preparation of this draft document considered recent significant changes to legislative requirements and “Te Rautaki Para | New Zealand waste strategy” which was published in 2023.
- 1.4. During this drafting process, the document was amended to reflect the “Waste and resource efficiency strategy” that was adopted and published in March 2025 (replacing the 2023 waste strategy) and the signalled outcomes from a review of the Waste Minimisation Act 2008 and Litter Act 1979, which were consulted on in April and May 2025, however the final legislation has not yet been enacted.
- 1.5. Council’s strategies and plans inform various delivery tools, such as action plans, frameworks, guides, investments etc., and to that end, an action plan is included within the draft WMMP.
- 1.6. The draft WMMP proposes that the Council will continue with actions around providing kerbside collection services, education initiatives that provide practical information to residents, schools and businesses about waste minimisation and management and the disposal of hazardous wastes, collaborating with other Councils to promote waste minimisation regionally and nationally, and lobbying for improved national product stewardship.
- 1.7. The proposed new actions include:
 - Consider extending kerbside collection services into new areas (Ashley & Loburn Lea, Fernside and Clarkville) and extending the Mandeville/Ohoka collection area.
 - Consider changing from an “Opt In” to an “Opt Out” service for rubbish and organics, changing from user-pays rubbish bags to bin-only and whether we offer a larger bin for rubbish collection services.

- Identify opportunities for consistent, targeted, direct engagement to improve participation in and compliance with kerbside collection services; and seek wider engagement with construction and demolition, health and retail sectors, and with industry groups.
 - Review our bylaw provisions and expand where necessary, and increase monitoring and surveying of wastes that Council does not actively manage.
 - Explore improving existing solid waste facilities to meet current and future needs, opportunities for an expanded resource recovery park-style facility for Waimakariri to ensure the district's future needs are met, and regional opportunities to provide or support infrastructure for construction and demolition waste diversion, deconstruction, and other difficult materials.
 - Support community organisations undertaking activities that support the Waste Management and Minimisation Plan by providing a community grant pool or fund, regional and national projects improving waste management planning in disaster situations, and national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.
- 1.8. The Waste Minimisation Act 2018 requires Councils to undertake a Special Consultative Procedure (SCP) prior to adopting their final WMMP. A communications plan and consultation collateral and messaging have been prepared, and staff are seeking the Committee's approval to undertake public consultation from Wednesday 22 July to Sunday 23 August 2026. The expected hearing and deliberations timeframe would be during the week of 14 to 18 September 2026.
- 1.9. Staff recommend that three elected members be appointed to sit on the hearings panel. These members will review the communications plan and may consider the scale of proposed changes to collection areas as part of that process. The members will attend hearings (if required), consider all feedback and direct staff to make necessary changes to the draft WMMP, and recommend to the Council that the final draft WMMP be adopted for final consultation with the LTP.

Attachments:

- i. Draft WMMP for Consultation (260515117262[v2])
- ii. Waste Assessment 2023 (240207016720)
- iii. WMMP Communications Plan (260703158847)
- iv. WMMP Feedback Form (260703158848)
- v. Maps of Proposed Expanded and New Kerbside Collection Areas (260707162466)

2. **RECOMMENDATION**

THAT the Utilities & Roading Committee:

- (a) **Receives** Report No. 260513115409.
- (b) **Initiates** the Special Consultative Procedure to review *Council's Waste Management and Minimisation Plan*.
- (c) **Approves** the attached proposed *draft Waste Management and Minimisation Plan* (260515117262[v2]) and its companion document the *Waste Assessment* (240207016720) for release for public consultation in accordance with the requirements of the Special Consultative Procedure outlined in the Local Government Act 2002.
- (d) **Appoints** three elected members to the Waste Plan Hearing Panel, as follows:
 - i. Councillor Mealings as Hearing Panel Chair
 - ii. Councillor
 - iii. Councillor

- (e) **Delegates** authority to the Hearing Panel to approve the final *draft Waste Management and Minimisation Plan* communications plan and feedback form.
- (f) **Notes** that the Hearing Panel may consider the scale of proposed changes to the serviced collection areas as part of the process to finalise the communications plan.
- (g) **Notes** the proposed period of consultation will be between from Wednesday 22 July to Sunday 23 August 2026.
- (h) **Notes** the expected hearing and deliberations timeframe is 14 to 18 September 2026.
- (i) **Notes** that any significant proposed changes will be included in the Long Term Plan consultation process.
- (j) **Circulates** report No. 260513115409 to the Community Boards for their information.

3. **BACKGROUND**

- 3.1. Section 42 of the Waste Minimisation Act 2008 (Waste Act) requires that “*a territorial authority must promote effective and efficient waste management and minimisation within its district*”. Section 43 requires territorial authorities to adopt a waste management and minimisation plan (WMMP) and specifies what the WMMP must provide for. Section 50 requires waste plans be reviewed at intervals of not greater than 6 years and for a Waste Assessment to be undertaken prior to that review; and Section 51 details the requirements for a Waste Assessment.
- 3.2. Council adopted its last Waste Plan in 2018. This Plan responds to Council’s overarching Infrastructure Strategy, which sits alongside other high-order strategies within Council’s strategic framework.
- 3.3. In 2022, a Waste Assessment was prepared by waste consultants Eunomia, and this determined we should review our 2018 WMMP. The review was completed by waste consultants Eunomia, with input from staff and the Solid and Hazardous Waste Working Party. The final Waste Assessment, with the outcomes of the WMMP review, was adopted by Council on 2 April 2024.
- 3.4. At that meeting, Council directed staff to prepare a new draft Waste Management & Minimisation Plan. Preparation of this draft document considered significant changes that had been made to legislative requirements and the New Zealand Waste Strategy in the years leading up to the review.
- 3.5. During the preparation process, the draft WMMP document was amended to reflect the Waste and Resource Efficiency Strategy that the Government adopted and published in March 2025 (this replaced the 2023 Te Rautaki Para | New Zealand Waste Strategy). The signalled outcomes from a review of the Waste Minimisation Act 2008 and Litter Act 1979, which was consulted on in April and May 2025, were also included in the draft WMMP. It is noted that, in December 2025, Cabinet agreed to amend the Waste Act and replace the Litter Act, however the final legislation has not yet been enacted.
- 3.6. The proposed WMMP Vision “*Waimakariri community will: Work towards a low emissions, low waste district built on a circular economy, valuing resources and eliminating waste and environmental harm*” was developed with elected members at an early workshop.
- 3.7. Expanding on the Vision, the WMMP states “*We will be a community that:*
 - *Takes ownership of our waste*
 - *Understands the circular economy and how to get there*
 - *Is committed to a low waste, low emissions future*
 - *Protects its people and place through waste management and minimisation*
 - *Values resources, both now and into the future*

- *Is collaborative and connected in how we deliver resource recovery*
- *Is innovative in finding ways to reduce, rethink and redesign waste."*

- 3.8. The key messages in the draft WMMP are that Waimakariri has made strong progress reducing waste, but improvement is slowing.
- 3.9. Waste audits of Council's kerbside rubbish identified that there are still divertible materials being put into kerbside rubbish bins and bags, as shown in Figures 3.1 and 3.2. Around 36% of landfilled waste that came in over the audit period was brought in by Council's rubbish collection services, therefore improving diversion from Council's kerbside rubbish bins and bags will have an impact on total landfilled waste.

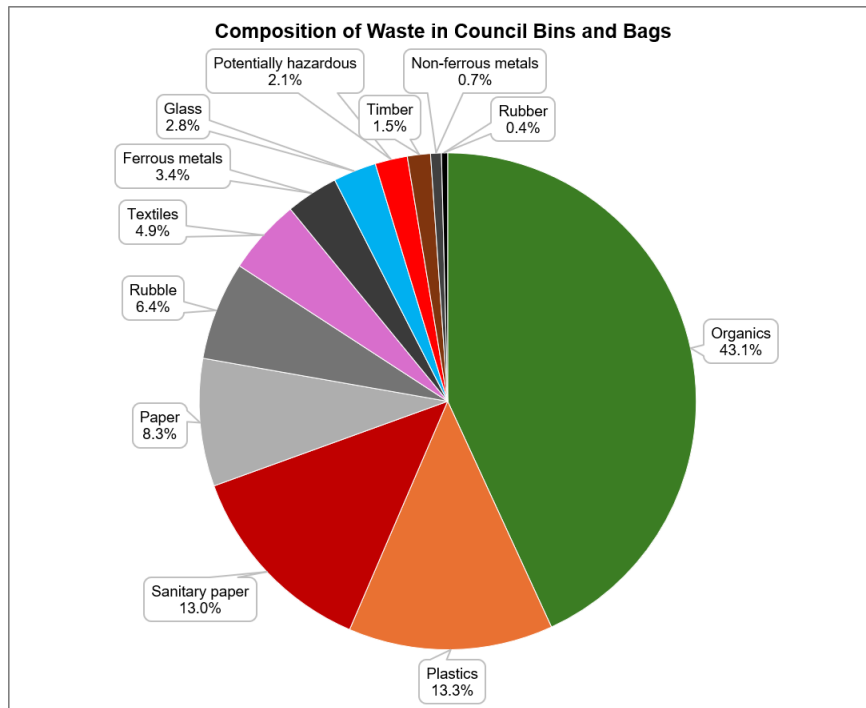


Figure 3.1: Composition of Waste in Council Kerbside Rubbish Bins and Bags

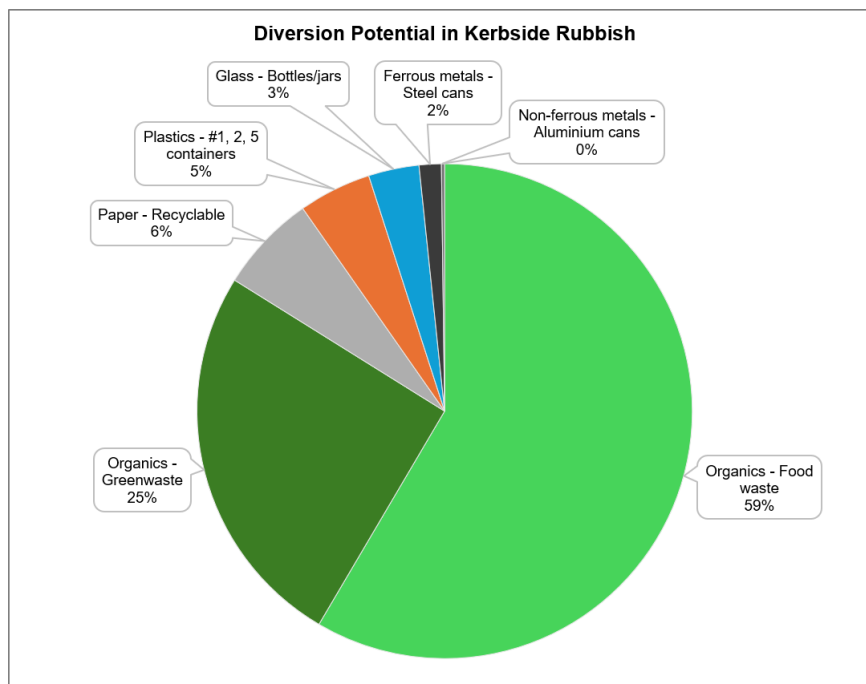


Figure 3.2: Diversion Potential in Council Kerbside Rubbish Bins and Bags

- 3.10. The waste audit also found that unacceptable materials are being put into organics bins (Figure 3.3), Our ongoing recycling bin audits also show that there is continuing contamination in kerbside recycling bins.

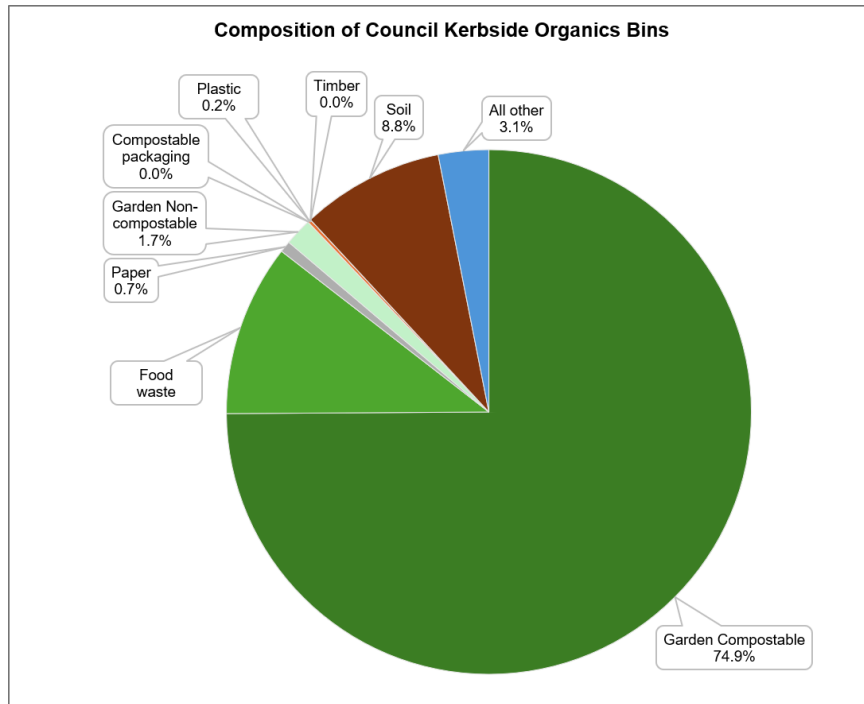


Figure 3.3: Composition of Kerbside Organics Bins

- 3.11. Around 42% of the materials sent to Kate Valley landfill from Southbrook transfer station could have been reused, recycled, or composted.

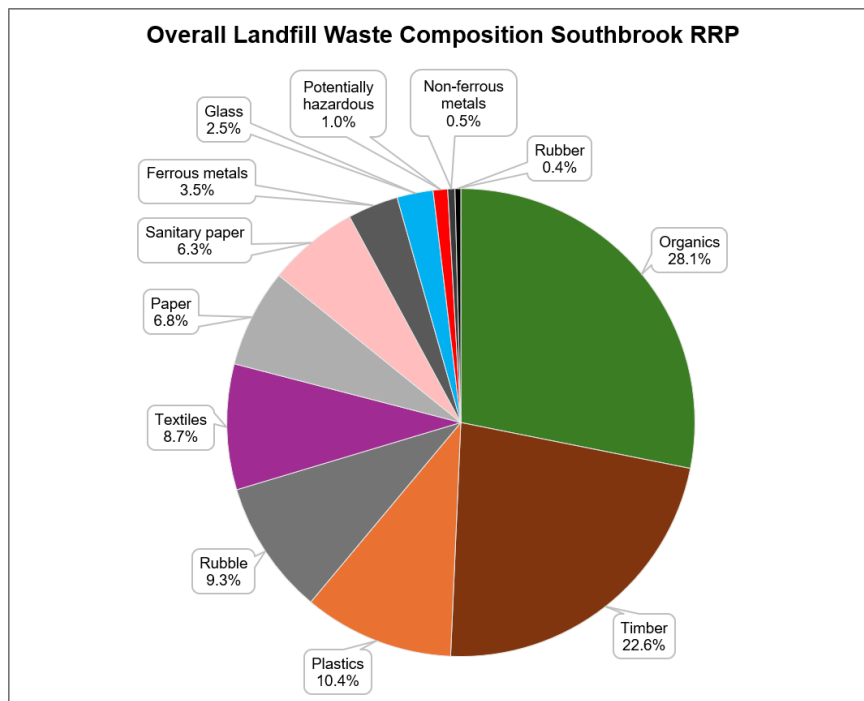


Figure 3.4: Composition of Landfilled Waste Through Southbrook RRP

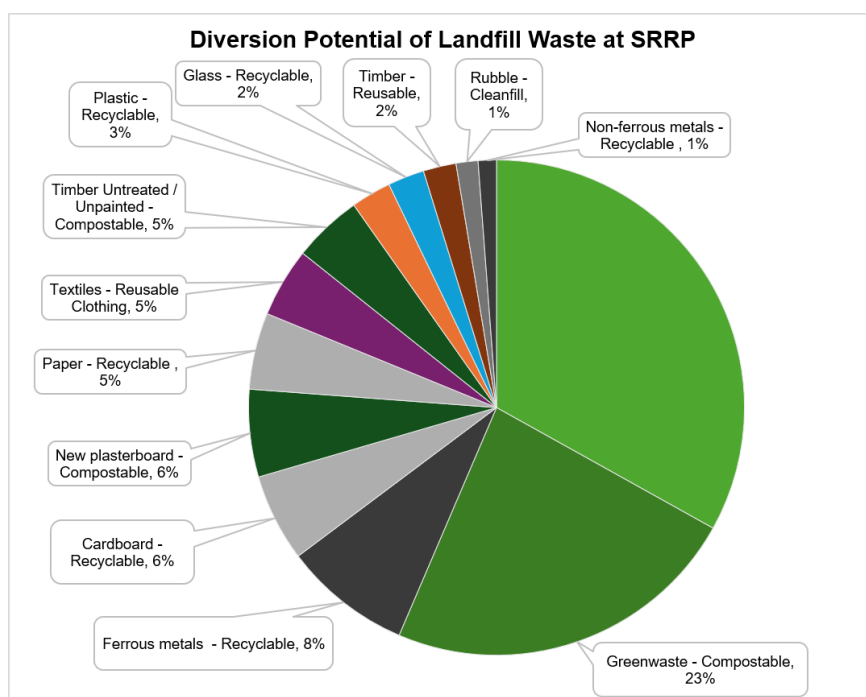


Figure 3.5: Composition of Landfilled Waste Through Southbrook RRP

- 3.12. However, another 53% of landfilled waste comes from construction & demolition, residential, industrial/commercial/institutional, and landscaping activities, 9% comes from private collection companies, and 2% from Oxford transfer station. It will be a challenge for Council to influence that 64% of the waste stream.
- 3.13. Council can't change this alone – we need to work together as a community to further increase diversion and reduce landfill waste.
- 3.14. The WMMP is also clear that there are gaps in Council's knowledge about what we don't or can't directly manage and measure. There is a portion of the district's waste that doesn't pass through Council-owned solid waste facilities: the Waste Assessment couldn't account for that proportion of waste being sent to Kate Valley via other transfer stations, or that is disposed of into other classes of landfill or into farm pits.
- 3.15. Our strategies and plans then inform various delivery tools, such as action plans, frameworks, guides, investments etc., and to that end, an action plan is included within the draft WMMP. The Action Plan proposes that the Council continues to:
- 3.15.1. Provide kerbside services;
 - 3.15.2. Provide education initiatives that provide practical information to residents, schools and businesses about waste minimisation and management, including how to dispose of hazardous waste;
 - 3.15.3. Collaborate with other Councils to promote waste minimisation regionally and nationally; and
 - 3.15.4. Lobby for improved national product stewardship.
- 3.16. Several new actions have been added to the Action Plan to address the issues raised in the Waste Assessment, and these are discussed further in Section 4.

4. ISSUES AND OPTIONS

- 4.1. There has been a substantial delay in finalising the draft WMMP for consultation, however the recommended new actions from the WMMP review are not major in themselves. The

consultation is therefore not likely to be as significant as was required for the previous WMMP, which was consulting on introducing our 3-bin collection service.

4.2. However, there are some aspects of the consultation around the expansion of, or changes to, collection services that would impact on specific portions of the district.

4.3. The proposed new actions are listed below:

4.3.1. Changes for of Kerbside Services:

- Extending kerbside collection services into new areas (e.g. Ashley & Loburn Lea, Fernside and Clarkville), expanding the Mandeville/Ohoka collection area, offering an organics collection service into Mandeville/Ohoka.
 - We have received requests and submissions from residents in these areas over several years, and staff propose to consult with these communities to determine their demand and support for such a service.
 - The scope of any extensions will depend entirely on the response from these communities.
 - Once the scope is defined, staff will be able to determine the costs of such a service and propose that Council engage with these communities more formally as part of the upcoming LTP consultation.
- Consider changing from selling and collecting user-pays rubbish bags to providing a bin-only service for rubbish collections.
 - Cost-comparison based on 2027/28 estimated charges and rates:
 - One \$4.20 bag per fortnight (2 bags per month) would cost \$109.20 p.a. (the volume of a bag is 60 litres).
 - At the average bag set-out of 1.35 bags per property (81 litres) as measured during the bin/bag audits in 2022/23. This equates to about three bags each month, and the cost would be around \$147 p.a.
 - The 80L rubbish bin rate is projected to be \$129.60 p.a.
 - This will reduce H&S risks for collectors, bag users and passers-by, and reduces the nuisance of bags being ripped open by cats and dogs.
 - It moves away from single-use plastic bags to reusable wheelie bins which have a lifespan of 15 years or more.
 - It will reduce administrative time for staff to manage the supply, distribution and charging of WDC-branded bags.
 - It will, however, remove the 'free' disposal option of pre-purchased WDC branded bags at facilities for residents and businesses, particularly for residents living outside the collection area. This will impact those customers who bring a WDC branded bag into the recycling area and will likely change how their rubbish disposal habits, e.g. rather than drop the bags off at the recycling area each week they may bring in fewer, larger loads over the weighbridge.
- Consider whether we offer a larger (240 litre) bin for rubbish collections, which would come at a higher cost.
 - This is likely to impact on private collection companies who provide this service inside the collection areas.
 - Based on the average 240L bin weights measured during the 2016 rubbish bin audits, and projected collection and disposal costs, a 240L bin may be rated at around \$380 to \$390 per year.

- Consider changing from the current “Opt-In” to an “Opt-Out” service for rubbish and organics. Note this does not impact on recycling services and rates, which will continue to be mandatory: property owners can still choose not to have a recycling bin, but the rate will still apply.
 - New properties would be provided and be charged for a standard set of bins (240L recycling bin, 140L organics bin and 140L rubbish bin) unless the property owner chooses different sized bins, or to not have an organics and/or rubbish bin. The suggested bin-set is based on the most commonly used configuration of bins, and total rates projected for these services in 2027/28 are \$442.50 per year.
 - Staff do not propose that Council requires owners of properties that currently don’t have a rubbish and/or organics bin to join the service if the Council adopts an “Opt Out” level of service, but they would still be able to still opt into the service at a later date.
 - Christchurch, Timaru, Mackenzie and Waimate Councils provide a mandatory service for rubbish and organics, and Ashburton Council will be introducing a mandatory organics bin collection service this year to complement their rubbish collections. Selwyn Council currently offers an opt-in service for their rubbish and organics bins, but we have been advised they are considering a change to these levels of service in their draft WMMP. Therefore, our proposed approach is consistent with those Councils that supply a similar collection service.

4.3.2. Education and Engagement:

- Identify opportunities for consistent, targeted, direct engagement to improve participation in and compliance with kerbside collection services, i.e. divert more organics and recycling from rubbish bins, and ensure only acceptable materials are put in recycling and organics bins.
- Seek wider engagement with construction and demolition, health and retail sectors, and with industry groups to better manage their waste and increase diversion from landfill.

4.3.3. Regulation and Monitoring:

- Review our bylaw provisions and expand where necessary.
- Increase monitoring and surveying of wastes that Council does not actively manage.

4.3.4. Infrastructure:

- Explore improving existing solid waste facilities to meet current and future needs (e.g. extending facility opening hours, expanding diversion and recycling services at existing facilities e.g. provision of public recycling facilities outside facility operating hours).
- Explore opportunities for an expanded resource recovery park-style facility for Waimakariri, to ensure the district’s future needs can be met for the next 50 to 100 years.
- Explore regional opportunities to provide or support infrastructure for construction and demolition waste diversion, deconstruction, and other difficult materials

4.3.5. Leadership and Management:

- Support projects that improve waste management planning in disaster situations (noting that work on this is currently underway).

- Support community organisations undertaking activities that support the Waste Management and Minimisation Plan by providing a community grant pool or fund.
- Support national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.

Consultation

- 4.4. The proposed consultation will be at a high level and will be seeking feedback on the above key actions and themes in the draft WMMP.
- 4.5. A communications plan has been developed (*Attachment iii*) for Council to undertake the special consultation process required under the Waste Minimisation Act. Consultation will be developed and managed in-house and undertaken through a range of engagement methods. Draft consultation collateral has been prepared and is appended in *Attachment iv*.
- 4.6. The proposed consultation timeline will be from Wednesday 22 July to Sunday 23 August 2026, with hearings (if required) and deliberations scheduled for the week of 14 to 18 September 2026. Staff are seeking for three elected members to be appointed to the WMMP Hearing Panel, with the Chair being the Solid Waste Portfolio Holder, Councillor Niki Mealings.
- 4.7. Staff are requesting that the U&R Committee delegate authority to the Hearing Panel to approve the final *draft Waste Management and Minimisation Plan* communications plan and feedback form. The members will review the communications plan and may consider the scale of proposed changes to collection areas as part of that process.
- 4.8. The Hearing Panel will direct staff to make any necessary changes to the draft WMMP based on feedback to the consultation, including at any hearings if these are necessary, and on the outcomes of their deliberations. The final draft WMMP would then be presented to Council for approval, and this will be included in the Solid Waste portion of the Long Term Plan.
- 4.9. Significant changes to Solid Waste services will be included in the Long Term Plan consultation process.

Implications for Community Wellbeing

There are no implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.10. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are likely to be affected by, or have an interest in the subject matter of this report. Water quality is a significant issue for Te Ngāi Tūāhuriri. They have not been recently consulted; however, staff assume they would be supportive of Council improving how we manage and reduce landfilled waste. Staff propose to discuss the draft WMMP at an upcoming Runanga meeting as part of the consultation process.

5.2. Groups and Organisations

There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report, particularly in relation to the actions in the WMMP Action Plan. Some actions may provide groups and organisations the opportunity to start or expand work that diverts waste from landfill, other actions may increase regulation of organisations or businesses that collect or otherwise handle waste.

5.3. Wider Community

The wider community is likely to be affected by, or to have an interest in the subject matter of this report. The proposed consultation will be at a high-level, there will undoubtedly be a range of views about several of the possible Actions. Staff propose that the feedback received through the initial WMMP consultation phase will be taken through into the Long Term Plan budgets for a further consultation round, during which the costs of the level-of-service changes would be socialised.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are financial implications of the decisions sought by this report. There may be some costs incurred if Council undertakes targeted consultation with communities within the potential kerbside extension or expansion areas.

This budget is included in the Annual Plan/Long Term Plan, within the Waste Minimisation Account. There is a budgetary allowance of \$23,790 for Investigations and Projects from WMMP, which is funded by Council's share of landfill levy income, and this can be utilised to fund any consultation expenses.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do have sustainability and/or climate change impacts.

Nationally, the 2026 Greenhouse Gas (GHG) Inventory found that in 2024 GHG emissions from the waste sector (landfills and wastewater treatment) makes up about 4% of Aotearoa New Zealand's total emissions. Over 77% of these emissions was biogenic methane (CH₄) from managed and unmanaged solid waste disposal sites. Unmanaged sites include landfills or dumps used to dispose of construction, demolition, industrial and farm waste. The Inventory also noted that around half of farm waste is disposed of by open burning.

It is estimated that waste sector emissions have reduced by 9.6% compared to 1990, and by 20.9% compared to 2005, and decreased by 0.5% from 2023 to 2024 mainly due to lower CH₄ emissions from managed waste disposal sites. The more recent decrease is reported to have been driven by improved landfill gas capture and a drop in garden, food and paper waste being landfilled.

The Council's 2022 Waste Audit identified that around 42% of all landfilled waste could have been diverted: 14% could have been recycled, reused or disposed of in a cleanfill, and 28% was food, garden waste, plasterboard and untreated timber that could have been composted (*Figure 3.5*).

Around 36% of landfilled waste from Southbrook RRP comes from Council's rubbish collection services: about 10% of that could have been diverted and composted through our organics collection service, and another 5% could have been diverted and recycled. The remaining 64% of landfilled waste arises from a range of other customers.

Figure 6.1 graphs the top nine waste streams which make up over 90% of the landfilled waste going through Southbrook RRP. Another five waste streams make up the remaining proportion of waste, ranging from 0.1% to 4.3% per material type, and these have been excluded from *Figure 6.1* for the sake of simplicity.

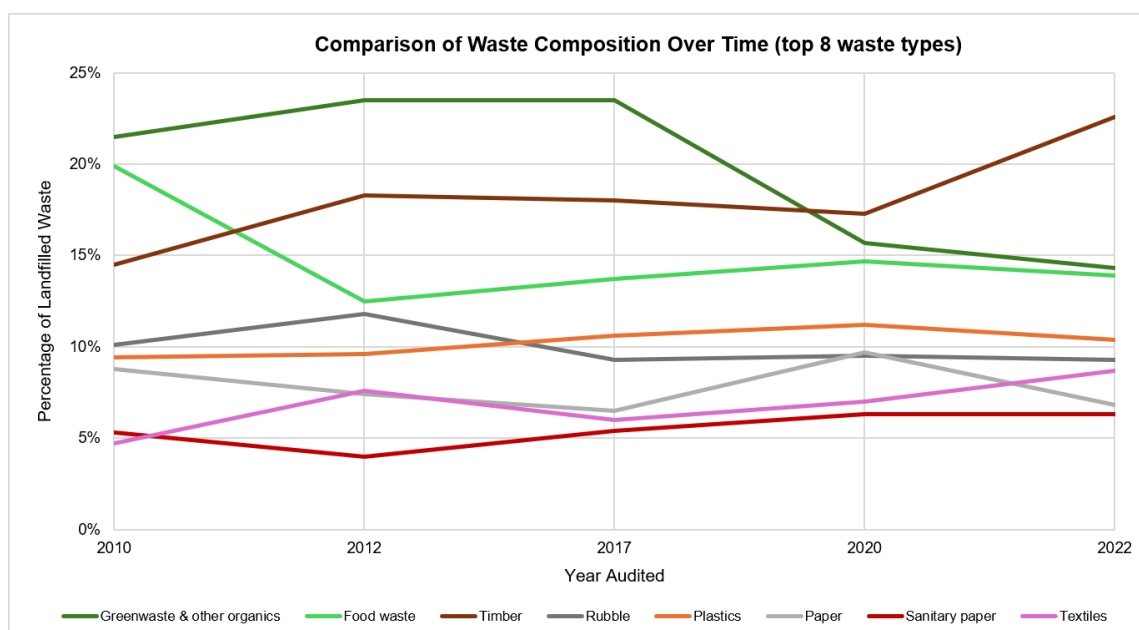


Figure 6.1: Comparison of Landfilled Waste Audit Results from 2020 to 2022 (top

Council's introduction of the organics collection service in 2019 appears to have reduced the amount of greenwaste and other organics that are being disposed of into the rubbish pit (reduced to 14.3%), but this does not appear to have substantially impacted on food waste quantities (stable at 13.9%). The amount of timber going into landfill has increased since 2020 (up to 22.6%), most likely owing to continued district growth.

These three largest waste streams are the principal contributors to landfill gas emissions. The challenge for Council will be to determine how we can influence construction companies to reduce the amount of timber that is being landfilled, in addition to encouraging more green waste and food waste to be diverted from landfill.

6.3 Risk Management

There are risks arising from the adoption/implementation of the recommendations in this report.

Respondents may expect us to make decisions based on the feedback to the WMMP consultation and may not realise the costs for any changes to kerbside collection services and facilities operations would be included in the upcoming LTP budget and consultation process. This will have to be managed through clear communications throughout the consultation process.

There is a risk that services we are not proposing to consult on (e.g. a separate collection service for glass bottles and jars) may be introduced by neighbouring Councils in the near future, which may mean our Council may have to pivot to follow suit with little time for consultation. This will be raised with our elected members should it appear to be likely.

There is a risk that the proposed amalgamation of Councils will impact on progressing our individual Waste Management & Minimisation Plan. This can be managed through any potential amalgamation process: any future changes would be considered during the next review, which would be likely to commence in around 5 years' time.

6.3 Health and Safety

There are not health and safety risks arising from the adoption/implementation of the recommendations in this report.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is a matter of significance in terms of the Council's Significance and Engagement Policy.

In addition, it is a requirement of the Waste Minimisation Act that the draft Waste Management and Minimisation Plan is consulted upon via a special consultative procedure if there are significant changes made during the review.

7.2. **Authorising Legislation**

Local Government Act

Waste Minimisation Act 2008

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report:

- Our district transitions towards a reduced carbon and waste district.
- Core utility services are provided in a timely and sustainable manner.

7.4. **Alignment with Councils Strategic Framework**

The draft Waste Management and Minimisation Plan is an update of the Council's current Waste Management and Minimisation Plan, adopted in 2018. This Plan responds to Council's overarching Infrastructure Strategy, which sits alongside other high-order strategies within Council's strategic framework.

The strategic framework articulates how our strategic documents (strategies and plans) relate to each other in contributing towards achieving Waimakariri Community Outcomes, as well as Council's Strategic Priorities. Our strategies and plans then inform various delivery tools, such as action plans, frameworks, guides, investments etc., and to that end, an action plan is included within the draft Waste Management and Minimisation Plan.

While the draft Waste Management and Minimisation Plan aligns closely with the Infrastructure Strategy, it also has a role in the delivery of other relevant strategies, such as the District Development Strategy (which plans for growth) and District Climate Resilience Strategy (in development) (in which waste minimisation and management is an important element), whilst also satisfying Government policy direction and aligning with regional and local policy direction

7.5. **Authorising Delegations**

The Utilities & Roading Committee have the delegated authority to adopt the draft WMMP document for consultation purposes.

Council has the authority to approve the Draft WMMP for the final consultation round, and to adopt the final WMMP once this has been through the LTP process.



2026–2032 Waste Management and Minimisation Plan Draft for Consultation



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Executive Summary

This is Waimakariri District Council's fourth Waste Management and Minimisation Plan (WMMP), the last one being adopted in 2018. Our last Waste Assessment was adopted in 2024, with targets to reduce waste to landfill from our District from 294kg to 236kg per person per annum and to increase diversion from 170kg to 228kg per person per annum by 2027/28.

It also highlighted gaps in our knowledge about some waste streams, such as rural waste, which we need to remedy so we can identify opportunities for improved management.

Ongoing tracking has shown that by the end of 2024/25, per-capita waste to landfill reduced to 251.8kg per annum (down 19.1% vs a target of 14.3%), and per-capita diversion increased to 239.2kg per annum (up 40.7% vs a target of 24.8%). However, in the current year, these gains have begun to flatten off.

We still need to do more to continue to meet future targets—this plan outlines what the issues are and includes several new initiatives and service expansions that will help us achieve our targets.

Nearly half of what is sent to landfill from our district could have been diverted. Just under half of Waimakariri's landfilled waste comes from kerbside collection services, most of which the Council can influence; and the remainder comes from a variety of activities and sources.

There has been strong uptake of organics and rubbish bins since the introduction of the "opt-in" kerbside collection services in July 2019. By early July 2026, we estimate that around 76% of eligible properties will have organics bins, while 85% will have rubbish bins.

This increased uptake has led to more compostable waste being diverted from landfill. However, audits show that some residents are still placing compostable materials in rubbish bags and bins, and non-compostable materials in organics bins.

Although the Council encourages householders to put less of these materials in their rubbish bins, the other half of the District's waste that gets taken directly to transfer stations or landfill is much harder for Council to influence—especially when some waste handling facilities aren't managed by Council.

Southbrook and Oxford transfer stations were designed and built in the late 1990's, and the most recent upgrades at Southbrook were implemented in late 2011. The District's population, demographics, waste volumes and types, and the demands on our services have changed considerably in the intervening years. Both sites need to be upgraded to meet current demands and be configured to ensure Waimakariri's future needs can be met without disrupting these services.

Proposed new actions

Kerbside Collections (consider and consult on)

- Extending the coverage of household kerbside recycling, organics and rubbish collection services to additional areas such as Ashley, Fernside, Clarkville, and the wider Swannanoa, Mandeville and Ohoka community.
- Whether we continue to collect rubbish bags at kerbside or switch to bins only, and whether to offer a larger bin option.
- Whether we move to a mandatory or an "opt-out" collection service for rubbish and organics.

Education and Engagement

- Identify opportunities for consistent, targeted, direct engagement to improve participation in and compliance with kerbside collection services.
- Seek wider engagement with construction and demolition, health and retail sectors, and with industry groups.

Regulation and Monitoring

- Review bylaw provisions and expand where necessary, e.g. additional regulation of the private waste sector, event waste management, construction site waste management, and material bans.

- Increase monitoring and surveying of rural wastes going to landfill, e.g. quantities and material types.
- Increase monitoring of solid waste handling facilities.

Infrastructure

- Explore opportunities for an expanded resource recovery park-style facility for Waimakariri, either in addition to or instead of existing resource recovery park/transfer station provision, to ensure the District's future needs are met.
- Explore regional opportunities to provide or support infrastructure for construction and demolition waste diversion, deconstruction, and other difficult materials.

Leadership and Management

- Support community organisations undertaking activities that support the Waste Management and Minimisation Plan by providing a community grant pool or fund.
- Support regional and national projects improving waste management planning in disaster situations.
- Support national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.

What is a Waste Management and Minimisation Plan?

The Waste Management and Minimisation Plan (WMMP) sets out the strategic direction for waste management and minimisation in the Waimakariri District and outlines how we plan to reduce the waste generated and better manage the waste we do produce.

The WMMP also includes an action plan that describes how we plan to get there, who is responsible, and how actions will be funded. Although Council has the responsibility to write the WMMP, making significant improvements will depend on the whole community working together.

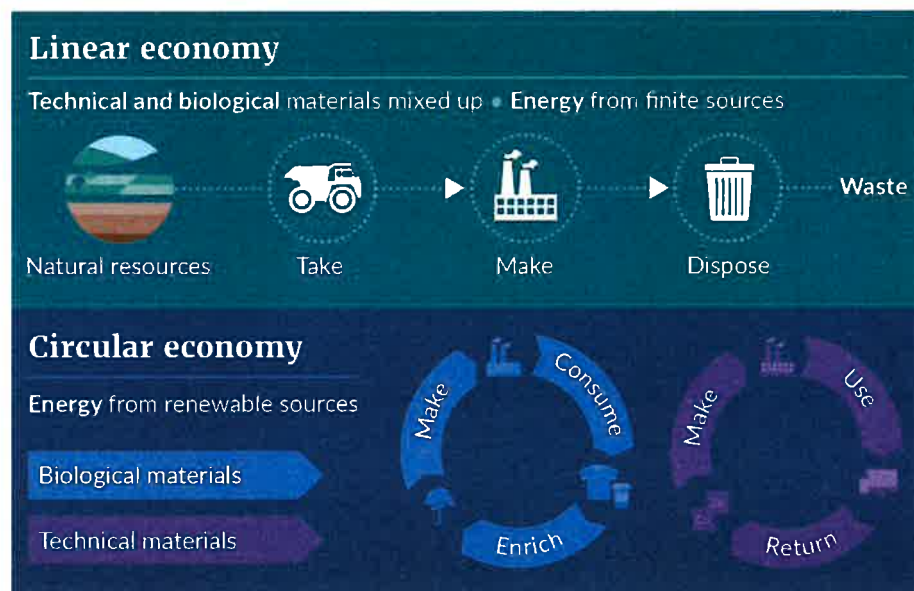
The Waste Minimisation Act is the primary legislation for waste in New Zealand, and this sets out Council's responsibilities and what must be in the WMMP. The WMMP also needs to align

with the national direction, as set out in the [New Zealand Waste and Resource Efficiency Strategy](#), which aims to minimise waste and improve waste management.

A circular economy approach

New Zealand's current approach to waste management is very linear—even though nationally we have made improvements in recovering and recycling waste, we still send a large proportion of the things we consume to landfill for disposal.

Globally there is a shift towards a different approach, known as the 'circular economy'. This approach focuses on managing waste materials in a circular system as much as possible. This approach is reflected in our WMMP.



Source: Ministry for the Environment

A circular economy is a system where resources and materials are used and reused for as long as possible while we:

- Prioritise avoiding waste
- Design out waste
- Reduce environmental impacts and regenerate natural systems
- Reduce carbon emissions through less resource use, consumption, and transport.

As we consider how to move towards a circular economy, we also need to reflect the **waste hierarchy**.

The options at the top of the hierarchy minimise impacts on people and environment—such as

rethinking and redesigning systems so that less goes to waste in the first place. The last resort, at the bottom of the hierarchy, is sending waste to landfill or incineration.

Waste Assessment

To prepare a new Waste Management and Minimisation Plan, Council first had to complete a Waste Assessment.

This is a technical report that pulls together all data and other information relating to how waste is managed in the District now, and where the problem areas are (now and into the future).

Our Waste Assessment, which was prepared in 2023 and adopted in 2024, can be read [here](#).

Best option  Least favoured option	Reduce the resources being used and redesign to avoid producing waste.
	Keep things in use for as long as possible, without significant reprocessing.
	Process materials to make the same or different material of similar value when reuse is no longer possible.
	Recover any remaining value, sustainably and without increasing emissions (e.g. chemical recycling, renewable energy).
	For any truly residual waste, treat to remove or reduce potential harm before final disposal.

Our Vision for the Future

Waimakariri community will:

Work towards a low emissions, low waste district built on a circular economy, valuing resources and eliminating waste and environmental harm.

We will be a community that:

- Takes **ownership** of our waste
- Understands the **circular economy** and how to get there
- Is **committed** to a low waste, low emissions future
- **Protects its people and place** through waste management and minimisation
- **Values resources**, both now and into the future
- Is **collaborative** and connected in how we deliver resource recovery
- Is **innovative** in finding ways to reduce, rethink and redesign waste.

We will do this by:

Taking ownership

Through effective education, engagement, and communication relating to waste issues, making sure that the impacts of our chosen waste management and minimisation methods are clearly explained.

Transitioning to a circular economy

By making sure the concept is clearly communicated and, where possible, demonstrated through our everyday waste management and minimisation actions.

Being committed

To ensuring opportunities for community involvement wherever possible.

By clearly communicating the Waste Management and Minimisation Plan to engage the wider community.

Protecting people and place through

Assessments of waste management and minimisation options to identify environmental and social impacts.

Public health and environmental protection.

Valuing resources

Taking a long-term view of waste management and minimisation options and the cost impact.

Ensuring that all parts of the community are actively engaged and actions follow the waste hierarchy.

Being collaborative

At all levels; community, regional and national.

Ensuring waste management and minimisation actions are integrated, with a network of services and facilities.

Being innovative

By prioritising innovative solutions.

Encouraging and enabling all parts of the community to develop innovative solutions.

How Will We Know if We Are Heading in the Right Direction?

We will measure our progress by tracking how much waste we are creating and what we are still sending to landfill. Our overall target is:

(this is to be confirmed once the action plan has been finalised)

This overall target is supported by other targets, which measure our progress on specific action areas.

How Are We Doing at the Moment?

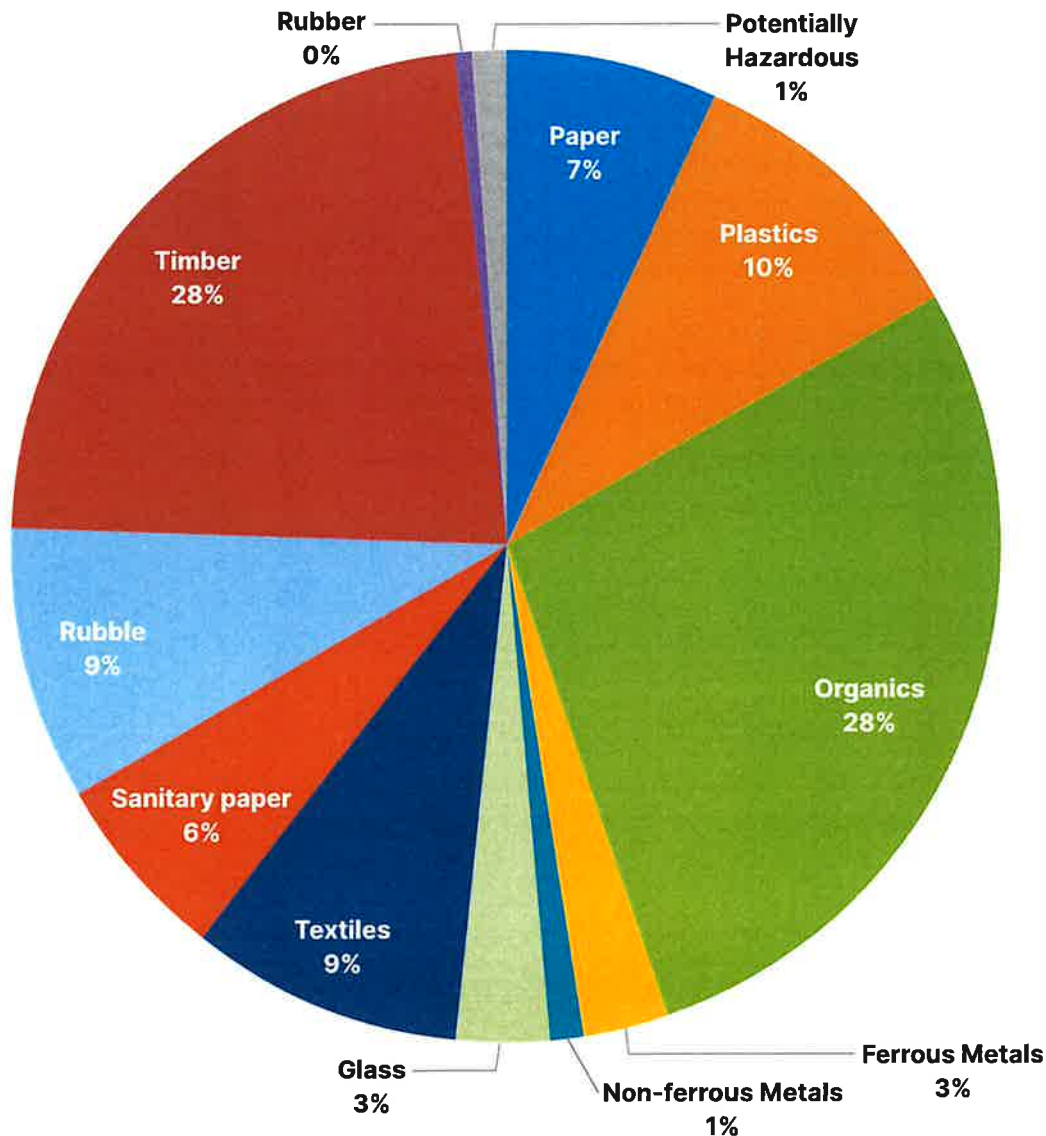
The amount of waste we send to landfill has been fairly stable over the last few years, and this has even reduced following the introduction of the kerbside organics service. However, we are still unnecessarily sending a lot of waste to landfill.

Large volumes still sent to landfill

Audits of Council rubbish bins and bags picked up at kerbside, and of the waste sent

to Kate Valley landfill via Southbrook transfer station, tell us that there is still a lot of recyclable and compostable material going to landfill. This creates greenhouse gas emissions and wastes resources.

The chart below shows the different types of materials we are sending to landfill.



Results of Transfer Station and Kerbside Waste Audits Undertaken in 2022/23

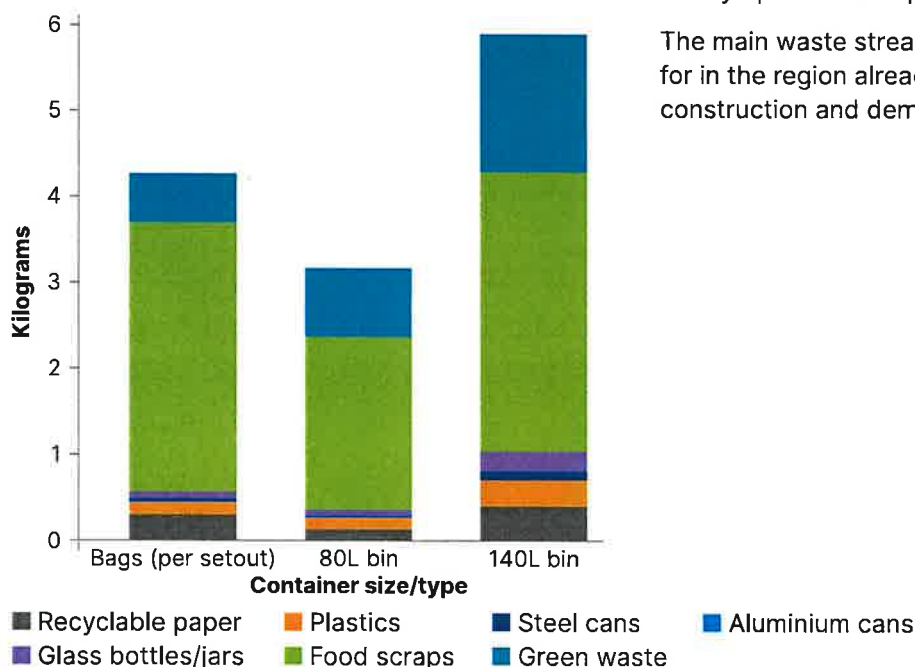
Nearly half of what is sent to landfill from our district could have been diverted—mostly material like food scraps and green waste; recyclables like paper/cardboard, glass and metal; and reusable or recyclable construction and demolition waste.

About half of this waste is taken to one of the District's transfer stations before it goes to landfill, and most of the rest comes from household rubbish bins and bags that are collected at kerbside by Council contractors or private collection companies.

Kerbside collection services have high uptake

Council's kerbside services are generally well-used—with around 76% of eligible householders choosing to use the kerbside organics collection service. The range of different rubbish collection services offered by Council means that they are catering to the needs of most households, with 85% using Council bins and the remainder using Council bags or private collectors for rubbish disposal.

The amount of material that goes out in the rubbish collection that could have been diverted depends quite a bit on the type of container used—households that use medium-sized wheelie bins (140 litre) put out more rubbish each collection than households that use small (80 litre) wheelie bins or Council-branded bags. They also put out a higher proportion of waste that could have been diverted:



Weight of Divertible Materials in Council Kerbside Rubbish Bags and Bins

Surveys tell us that households using bags tend to put out more food scraps, while households using small wheelie bins tend to put out more green waste—but households using medium wheelie bins for their rubbish collection put out even more of both, plus more recyclables.

Although Council encourages householders to put less of these materials in their rubbish bins, the other half that gets taken directly to transfer stations or landfill is much harder for Council to influence—especially when the transfer stations also aren't under Council's control.

Strong infrastructure with future capacity needs

Council provides a good level of solid waste infrastructure, with two transfer stations in the district that accept a wide range of materials, including second-hand goods that are on-sold through a reuse store. Both are old facilities and require upgrades and expansions to meet current levels of demand, however Council needs to plan for the District's longer-term future requirements.

Disposal of waste that can't be diverted is guaranteed for some time to come, with the public-private partnership landfill operating at Kate Valley. Recycling and organics collected at the kerbside is sorted and processed at facilities located in Christchurch, and garden waste brought into the transfer stations is taken to a locally operated compost plant.

The main waste stream that isn't well catered for in the region already is waste from the construction and demolition sector.

What Have We Achieved So Far?

Since the 2018 Waste Management and Minimisation Plan, significant progress has been made both in completing actions, and towards the targets we set.

The first target set a reduction in the amount of rubbish that we sent to landfill, and this has been achieved most years (with exception to the Covid-19 pandemic management in 2020 and 2021 when recycling collections were disrupted and highly contaminated).

The second target was based on the amount of material that has been collected for diversion through recycling and composting. This target has been exceeded in the last few years except, once again, during pandemic management in

2020 and 2021. The introduction of the kerbside organics collection has been key in achieving this, along with improvements and expansion of diversion options that are available at the Council's transfer stations.

Some of the planned actions have been difficult to progress, often, due to the lack of influence Council has over those waste streams or activities—such as commercial waste, and construction activities. Having an impact on these areas will depend on partnership working between these sectors, Council, and the waste sector.

The next section outlines the key opportunities for improvements over the next six to ten years.

Key Opportunities

While significant improvements have been achieved through changes to kerbside services and Council's transfer stations, there are a number of areas where waste management and minimisation could be improved further.

These include:

- More use of the organics collection service and other diversion options by householders – even though the service is well used, there is still a lot of food scraps and green waste being sent to landfill.
- Increased diversion of construction and demolition waste from Kate Valley.
- Better understanding of rural waste streams to identify opportunities for improved management.
- Increased capture and recycling of materials like paper, cardboard, and textiles from business and industrial sources.
- Identifying and considering the impact of non-Council facilities.
- Introducing more stringent management of some Council facilities to meet central government reporting requirements.
- Planning to meet increased demands for infrastructure due to growth in the district.
- Proactively planning for waste management issues caused by disasters.
- Working with health agencies to improve management of medical wastes.

The Action Plan

This section of the Waste Management and Minimisation Plan (WMMP) outlines the actions needed to drive progress and highlights the important role our community plays in transitioning to a more circular system.

The following tables identify key issues alongside the actions required and the ways our community can help support this transition. This section also sets out specific targets, explains how progress will be monitored and measured, and describes how the WMMP will be funded.

In many cases, the key issues can't be solved by Council alone, and solutions rely on working in

partnership across the community as a whole. The action plan shows whether the actions are new or a continuation of existing actions, timeframes, and how Council would fund its contribution.

Actions are categorised by:

- Regulation
- Monitoring
- Education and Engagement
- Kerbside Collections
- Infrastructure
- Leadership and Management.

Regulation

Ref #	Action	Existing or new	Timeframe	Funding
R1	Ensure that littering and illegal dumping in public places is managed effectively.	Existing	Ongoing	Rates
R2	Review bylaw provisions and expand where necessary, e.g. additional regulation of the private waste sector, event waste management, construction site waste management, material bans.	New	2027/28	Rates and fees

Monitoring

Ref #	Action	Existing or new	Timeframe	Funding
M1	Continue monitoring the composition of waste going to landfill through Solid Waste Analysis Protocol (SWAP) studies and investigate further waste minimisation measures when warranted.	Existing	Ongoing	Rates and levy funds
M2	Continue to collect and analyse participation and set out rates for all services by locality, to identify any areas where this is a particular issue.	New (since last WMMP)	Ongoing	Rates and levy funds
M3	Continue proactive monitoring of contamination in recycling and organics bins and a warning system for excess contamination (three strikes in place).	New (since last WMMP)	Ongoing	Rates and levy funds
M4	Maintain appropriate systems for Council-managed Class 3/4 fills to record and monitor types, quantities, and sources of waste.	New	2026/27	Rates and levy funds
M5	Increase monitoring and surveying of rural wastes going to landfill, e.g. quantities and material types.	New	2027/28	Rates and levy funds
M6	Increase monitoring and surveying of solid waste handling facilities.	New	2027/28	Rates and levy funds

Education and Engagement

Ref #	Action	Existing or new	Timeframe	Funding
EE1	Circulate educational information to promote Council's waste management and minimisation services.	Existing	Ongoing	Rates and levy funds
EE2	Provide education programmes and support other programmes aimed at waste management and minimisation and sustainability.	Existing	Ongoing	Levy funds
EE3	Collaborate with other councils, to promote waste management and minimisation and waste acceptance criteria in a regionally and nationally consistent way.	Existing	Ongoing	Levy funds
EE4	Promote and support existing waste minimisation and resource efficiency initiatives targeting local industry.	Existing	Ongoing	Levy funds
EE5	Carry out educational campaigns to raise awareness about littering, including larger scale illegal dumping, when warranted.	Existing	Ongoing	Rates
EE6	Identify opportunities for consistent, targeted, direct engagement that can be delivered where there is low participation in Council recycling and/or organic waste services, and/or high contamination.	New	2026/27	Levy funds
EE7	Continue to seek wider engagement with construction and demolition sector, health sector, retail sector, and industry through industry, community, and other agencies, and regional and national waste action groups.	New (since last WMMP)	Ongoing	Rates and levy funds
EE8	Continue to work closely with mana whenua, community groups, social enterprise, non-government organisations etc. to develop and enable locally led waste minimisation engagement and education, and support existing initiatives to prevent and reduce food waste to landfill.	New (since last WMMP)	Ongoing	Rates and levy funds

Kerbside Collections

Ref #	Action	Existing or new	Timeframe	Funding
CS1	Consider extending the coverage of household kerbside recycling, organics and rubbish collection services to additional areas.	New	Ongoing	Rates, user charges, and levy funds
CS2	Consider options for Council's household kerbside organic waste collection service (including mandatory or opt-out services, charging and participation arrangements) and implement the preferred option.	New	2026–2028	Levy funds
CS3	Consider options for Council's household kerbside rubbish collection service (including containers, capacity, collection frequency) and implement the preferred option.	New	2026–2028	Rates, user charges
CS4	Work with other Canterbury councils to identify and implement additional improvements to kerbside recycling collections and processing, and ensure consistent engagement around collection services.	New	2026–2029	Rates, user charges
CS5	Support/introduce virtual trading marketplaces (e.g. community freecycle, swap pages, online waste trading platforms).	New	Ongoing	Levy funds
CS6	Work with local providers (private, iwi and community groups) to implement and/or encourage improved commercial service provision, e.g. recyclables, construction waste.	New	Ongoing	Rates, levy funds
CS7	Continue to work with product stewardship providers to encourage better service provision and awareness-raising for key farm waste materials such as plastic containers and wrap, textiles, polystyrene, batteries, aerosol cans, waste oil.	Existing	Ongoing	Levy funds

Infrastructure

Ref #	Action	Existing or new	Timeframe	Funding
IN1	Monitor and review resource recovery park/transfer station provision (currently Oxford Transfer Station and Southbrook Resource Recovery Park) to ensure they are fit for purpose and are improved where necessary.	Existing	Ongoing	Rates, user charges, levy funds
IN2	Explore opportunities for an expanded resource recovery park-style facility for the District, either in addition to or instead of existing resource recovery park/transfer station provision, including but not limited to opportunities for diversion of builders' waste, workshops for repair of goods, community education, extended product stewardship systems, a future container return scheme, container reuse, on-site processing, etc.	New	2026–2028	Rates, user charges, and levy funds
IN3	Explore regional opportunities to provide or support infrastructure for construction and demolition waste diversion, deconstruction, other difficult materials, e.g. soft plastics, agricultural waste.	New (since last WMMP)	Ongoing	Rates, user charges, and levy funds
IN4	Work regionally to coordinate infrastructure provision and develop opportunities to improve scope, consistency, and efficient delivery of waste infrastructure.	Existing	Ongoing	Rates, user charges, and levy funds

Leadership and Management

Ref #	Action	Existing or new	Timeframe	Funding
LM1	Support community organisations undertaking activities that support the WMMP by providing a community grant pool or fund, with criteria to be developed and consulted on as part of the next Long Term Plan.	New	Annual	Levy funds
LM2	Advocate to central government for extended producer responsibility.	Existing	Ongoing	Rates
LM3	Respond to central government consultations, engagements, technical advisory groups, and information sharing opportunities.	Existing	Ongoing	Rates
LM4	Work closely with mana whenua, community groups, and the private sector to progress opportunities for increased waste reduction and diversion.	Existing	Ongoing	Rates
LM5	Continue to develop regional collaborative projects and work towards increasingly formal collaborative arrangements.	Existing	Ongoing	Rates
LM6	Support regional and national initiatives and organisations campaigning for better waste management and minimisation.	Existing	Ongoing	Rates
LM7	Support regional and national projects improving waste management planning in disaster situations.	New (since last WMMP)	Ongoing	Rates
LM8	Support national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.	New (since last WMMP)	Ongoing	Rates

Monitoring and Reporting on Our Progress

Council will continue to collect information that will help us to measure and monitor our progress, and some of the actions in the Waste Management and Minimisation Plan will help us do this more effectively.

Regular brief progress reports will be available on the Council's website, and more detailed progress reports will be presented at Council meetings.

Glossary and Abbreviations

Food scraps	Leftovers and waste from preparing food—vegetable and fruit peelings, leftover cooked food, cooked and uncooked meat, dairy products such as cheese or yoghurt, meat and fish bones, coffee grounds, tea leaves (does not include tea bags, coffee pods, compostable plastics, biodegradable cutlery or packaging, paper or cardboard).
Green waste	Waste largely from the garden—hedge clippings, tree/bush prunings, lawn clippings—which can be composted.
Hazardous waste	Waste that can cause harm or damage, to people or the environment, like strong chemicals.
Class 1 landfill	Tip or dump, municipal landfill.
Class 2 landfill	Construction and demolition landfill.
Class 3/4 fill	Controlled and managed fill sites.
Class 5 fill	Clean fill site.
New Zealand Waste Strategy	A document produced by the Ministry for the Environment. The latest version was published in 2025.
Recycling	Waste items that can be recycled through a collection, a transfer station, a recycling drop-off point, or public place recycling bins.
RRP	Resource Recovery Park.
Rubbish	Waste, that currently has little other management options other than disposal to landfill.
Tonne (metric)	A thousand kilograms.
Te rautaki para	The current New Zealand Waste Strategy, published by Government's Ministry of Environment.
Transfer station	Where waste can be disposed of separately for recycling or reprocessing, or is dumped and put into larger trucks for transport to landfill.
Waste	Anything we no longer want and are discarding.
Waste Assessment	A document summarising the current situation of waste management in the Waimakariri District, with facts and figures, and required under the Waste Minimisation Act.
Waste hierarchy	A list of waste management options with decreasing priority—usually shown as 'reduce, reuse, recycle, reprocess, treat, dispose'.
WMA	Waste Minimisation Act (2008).
WMMP	Waste Management and Minimisation Plan, also sometimes referred to as 'the WMMP'.
Zero Waste	A philosophy for waste management, focusing on Council/community partnerships, local economic development, and viewing waste as a resource.



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Waimakariri District Council Waste Assessment

January 2024

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Acknowledgements

Disclaimer

Eunomia Research & Consulting has taken due care in the preparation of this report to ensure that all facts and analysis presented are as accurate as possible within the scope of the project. However, no guarantee is provided in respect of the information presented, and Eunomia Research & Consulting is not responsible for decisions or actions taken on the basis of the content of this report.

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1 Introduction

This Waste Assessment has been prepared for Waimakariri District Council (Council) by Eunomia Research & Consulting in accordance with the requirements of the Waste Minimisation Act 2008 (WMA). This document provides background information and data to support the Council's waste management and minimisation planning process.

1.1 Structure of this Document

This document is arranged into a number of sections designed to help construct a picture of waste management in the Waimakariri district. The key sections are outlined below.

Introduction

The introduction covers a number of topics that set the scene. This includes clarifying the purpose of this Waste Assessment, its scope, the legislative context, and key documents that have informed the assessment.

Canterbury Region

This section presents a brief overview of key aspects of the region's geography, economy, and demographics that influence the quantities and types of waste generated and potential opportunities. It also provides an overview of regional waste facilities, and initiatives that may be of relevance to how we manage our waste.

Our District

This section presents a brief overview of key aspects of the district's geography, economy, and demographics that influence the quantities and types of waste generated and potential opportunities.

Waste Infrastructure, Services, Data and Performance Measurement

These sections examine how waste is currently managed, where waste comes from, how much there is, its composition, and where it goes.

Gap Analysis and Future Demand

This section provides an analysis of what is likely to influence demand for waste and recovery services in the district and region and identifies key gaps in current and future service provision, and in the Council's ability to promote effective and efficient waste management and minimisation.

Statement of Options & Council's Proposed Role

These sections develop options available for meeting the forecast future demand and identify the Council's proposed role in ensuring that future demand is met, and that Council is able to meet its statutory obligations.

Statement of Proposals

The statement of proposals sets out what options are available to meet the projected demand or address the key issues. The proposals will be assessed against the strategic direction for Council, and preferred options will be carried forward into the Waste Management and Minimisation Plan (WMMP).

Appendices

The appendices include the consultation response from the Medical Officer of Health as well as additional detail on the national context.

1.2 Purpose of this Waste Assessment

This Waste Assessment is intended to provide an initial step towards the development of a WMMP and sets out the information necessary to identify the key issues and priority actions that will be included in the draft WMMP.

Section 51 of the WMA outlines the requirements of a waste assessment, which must include:

- a description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority's district;
- a forecast of future demands;
- a statement of options;
- a statement of the territorial authority's intended role in meeting demands;
- a statement of the territorial authority's proposals for meeting the forecast demands; and
- a statement about the extent to which the proposals will protect public health, and promote effective and efficient waste management and minimisation.

1.3 Legislative Context

The principal solid waste legislation in New Zealand is the Waste Minimisation Act 2008 (WMA). The stated purpose of the WMA is to:

“encourage waste minimisation and a decrease in waste disposal in order to

(a) protect the environment from harm; and

(b) provide environmental, social, economic, and cultural benefits.”

To further its aims, the WMA requires territorial authorities (TAs) to promote effective and efficient waste management and minimisation within their district. To achieve this, the WMA requires that all TAs adopt a WMMP.

The WMA requires every TA to complete a formal review of its existing waste management and minimisation plan at least every six years. The review must be consistent with WMA sections 50 and 51.

Section 50 of the WMA also requires all TAs to prepare a ‘waste assessment’ prior to reviewing its existing plan. This document has been prepared in fulfilment of that requirement. The Council’s existing Waste Assessment was produced in 2015, and the resulting WMMP was adopted in July 2016.

Further detail on key waste-related legislation is contained in Appendix A.4.0.

1.4 Scope

1.4.1 General

As well as fulfilling the statutory requirements of the WMA, this Waste Assessment will build a foundation that will enable Council to review and/or update its WMMP in an informed and effective manner, as required. In preparing this document, reference has been made to the Ministry for the Environment’s ‘Waste Management and Minimisation Planning: Guidance for Territorial Authorities’¹, while noting that this guidance dates back to 2015 and has, to an extent, been superseded through practice.

A key aspect of this Waste Assessment will be forming a clear picture of waste flows and management options in the district. The WMA requires that a waste assessment must contain:

“A description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority’s district (whether by the territorial authority or otherwise)”.

This means that this Waste Assessment must take into consideration all waste and recycling services carried out by private waste operators as well as Council’s own services. While the Council has reliable data on the waste flows that it controls, data on those services provided by private industry is limited. Reliable, regular data on waste flows is important if the TA chooses to include waste reduction targets in their WMMP. Without data, targets cannot be readily measured.

The New Zealand Waste Strategy 2023 also repeatedly refers to central and local councils as being the key agencies by which many goals could be achieved.

1.4.2 Period of Waste Assessment

The WMA requires WMMPs to be reviewed at least every six years, but it is considered prudent to take a longer-term view. The horizon for the WMMP is not fixed but is assumed to be centred on a 10-year timeframe, in line with council long term plans (LTPs). For some assets and services, it is necessary to consider a longer timeframe and this is taken into account where appropriate. Therefore, the period of the Waste Assessment looks forward over at least the next ten years, and sometimes longer (in the case of facilities, e.g. landfill consenting).

1.4.3 Consideration of Solid, Liquid and Gaseous Wastes

The guidance provided by the Ministry for the Environment on preparing Waste Management and Minimisation Plans states that:

“Councils need to determine the scope of their WMMP in terms of which wastes and diverted materials are to be considered within the plan”.

¹ Ministry for the Environment (2015), Waste Management and Minimisation Planning: Guidance for Territorial Authorities

The guidance further suggests that liquid or gaseous wastes that are directly managed by a TA, or are disposed of to landfill, should be seriously considered for inclusion in a WMMP.

Other wastes that could potentially be within the scope of the WMMP include gas from landfills and the management of biosolids from wastewater treatment plant (WWTP) processes.

The nearest landfill to Waimakariri district is Transwaste Canterbury's Kate Valley landfill, which has a landfill gas capture system in place.

In line with the Council's previous WMMP, this Waste Assessment is focused on solid waste that is disposed of to land or diverted from land disposal, including solid waste collected and disposed of by commercial enterprise as well as waste collected by the council.

However, given the current work on restructuring water services (including waste water), this WA and any resulting WMMPs will not include management of solid wastes resulting from these activities.

1.4.4 Public Health Issues

Protecting public health is one of the original reasons for local authority involvement in waste management. Te rautaki para, the new Waste Strategy, refers to protection of human health as one of the outcomes from successful recovery of resources.

Protection of public health is currently addressed by a number of pieces of legislation. Discussion of the implications of the legislation is contained in Appendix A.4.0.

1.4.4.1 Key Waste Management Public Health Issues

Key issues that are likely to be of concern in terms of public health include the following:

- Population health profile and characteristics
- Meeting the requirements of the Health Act 1956
- Management of putrescible wastes
- Management of nappy and sanitary wastes
- Potential for dog/seagull/vermin strike
- Timely collection of material
- Locations of waste activities
- Management of spillage
- Litter and illegal dumping
- Medical waste from households and healthcare operators
- Storage of wastes
- Management of biosolids/sludges from WWTP
- Management of hazardous wastes (including asbestos, e-waste, etc.)
- Private on-site management of wastes (i.e. burning, burying)
- Closed landfill management including air and water discharges, odours and vermin
- Health and safety considerations relating to collection and handling.

1.4.4.2 Management of Public Health Issues

From a strategic perspective, the public health issues listed above are likely to apply to a greater or lesser extent to virtually all options under consideration. For example, illegal

dumping tends to take place ubiquitously, irrespective of whatever waste collection and transfer station systems are in place.

Some systems may possibly exacerbate the problem (infrequent collection, user-charges, inconveniently located facilities etc.) but, by the same token, the issues can be managed through methods such as enforcement, education and by providing convenient facilities. It is also known that illegal dumping continues to be a problem even in areas where disposal is free of charge.

In most cases, public health issues will be able to be addressed through setting appropriate performance standards for waste services. It is also important to ensure performance is monitored and reported on and that there are appropriate structures within the contracts for addressing issues that arise.

There has been an observed added emphasis on workplace health and safety under the Health and Safety at Work Act 2015. This legislation can impact on, for example, the choice of collection methodologies and working practices and the design of waste facilities.

In addition, public health impacts will be able to be managed through consideration of potential effects of planning decisions, especially for vulnerable groups. That is, potential issues will be identified prior to implementation so they can be mitigated for.

1.5 Strategic Context

1.5.1 New Zealand Waste Strategy

The 2023 New Zealand Waste Strategy is the first time New Zealand's national strategic direction for waste has been reviewed since 2002, and unsurprisingly takes quite a different approach to the previous Strategy.

The vision of the 2023 New Zealand Waste Strategy, Te rautaki para, is:

“By 2050, Aotearoa New Zealand is a low-emissions, low-waste society, built upon a circular economy.

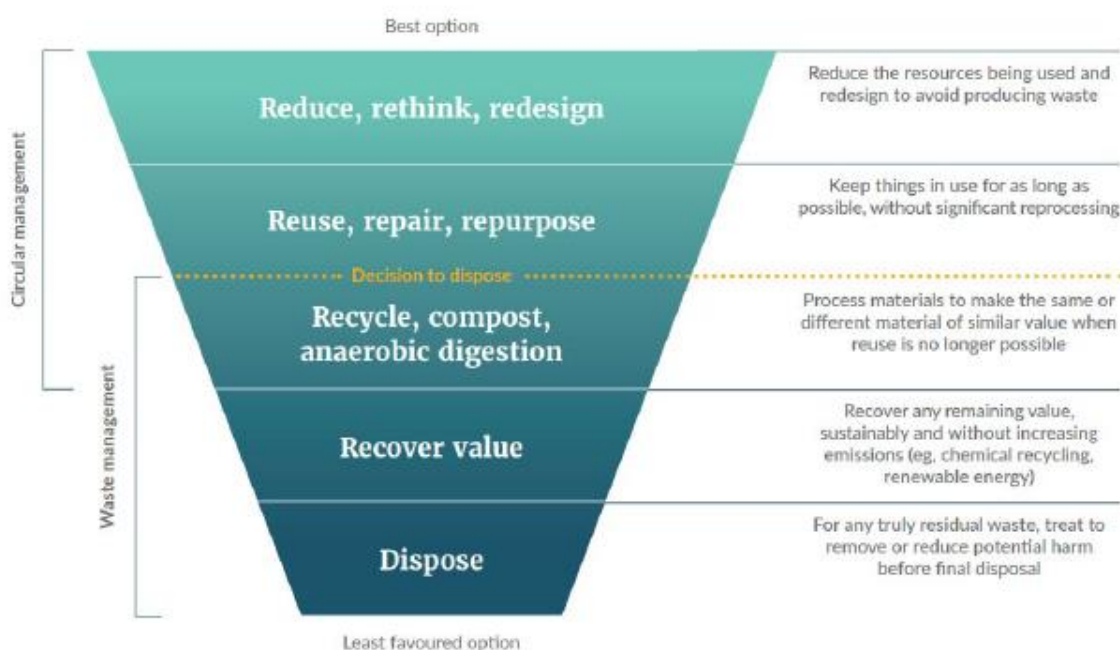
We cherish our inseparable connection with the natural environment and look after the planet's finite resources with care and responsibility”

This vision is supported by six guiding principles:

- 1) Take responsibility for how we make, use, manage and dispose of things
- 2) Apply the waste hierarchy preferences to how we manage materials
- 3) Protect and regenerate the natural environment and its systems
- 4) Deliver equitable and inclusive outcomes
- 5) Ensure our systems for using, managing and disposing of materials are financially sustainable
- 6) Think across systems, places and generations

A revised waste hierarchy is set out (shown below), intended to illustrate which options are the best, and which are least favoured. While many versions of the waste hierarchy exist, the one in the strategy is intended to be simple and easy to understand.

Figure 1: Revised Waste Hierarchy



The strategy has three phases:

- 1) Embedding circular thinking into systems (by 2030)
- 2) Expanding to make circular normal (to 2040)
- 3) Helping others do the same (by 2050)

Each of the three phases has associated goals, some of which are particularly relevant to a Waste Assessment and WMMP process; others more relevant to central government, the wider public, the community/private sector, or other local government roles such as contaminated land management.

The key role for local government is described in the Strategy as:

- getting involved in implementing the strategy and the process of developing the action and investment plan – using the strategy as a starting point for WMMPs;
- looking for opportunities to work with other councils, particularly on facilities and services that support a ‘national circular resource management network’;
- supporting local community groups and non-governmental organisations with waste reduction initiatives;
- incorporating national behaviour change programmes in local activity;
- ensuring planning and consenting processes consider the need for waste management infrastructure and services; and
- planning and resourcing contaminated land management including vulnerable landfills.

The Strategy has three targets to be achieved by 2030:

- 1) Reduce waste generation by 10% per person
- 2) Reduce waste disposal by 30% per person
- 3) Reduce biogenic methane emissions from waste by at least 30%

However, at this point no baseline has been set.

Further detail on the implications of the Waste Strategy is set out in Appendix A.4.1.

Section 44 of the WMA requires councils to have regard to the NZWS when preparing their WMMP. For the purpose of this Waste Assessment, we have given regard to the NZWS and Council's current WMMP.

These sections are discussed in more detail in Appendix A.4.0.

1.5.2 Emissions Reduction Plan

The Climate Change Commission (CCC) was established to provide impartial expert evidence to government to support initiatives that would reduce greenhouse gas emissions and address climate change mitigation and adaptation, contributing towards the goals set out in the Climate Change Response Act 2002.

The CCC reviewed the waste sector as part of its work during 2020 and 2021 and has provided its final advice to government with respect to this sector, amongst others, in the Emissions Reduction Plan (May 2022)².

The advice of the CCC is that unless waste management practices and policy settings in New Zealand change significantly, we will not meet the targets set in the 2002 Act – *“current policies will not deliver the emissions reductions we must achieve.”* Comprehensive action is required to reduce waste overall, divert waste from landfill disposal, and improve/extend landfill gas capture systems.

The main source of biogenic methane emissions from the waste sector is the anaerobic decomposition of organic wastes in landfill (94% in 2019).

The key actions for the waste sector are:

- enable households and businesses to reduce organic waste (reduction of food scraps at home and in businesses, and participation in improved kerbside collections);
- divert more organic waste from landfill (improve household kerbside collections of food and garden waste, invest in processing and recovery infrastructure for organics, require organic waste to be separated);
- reduce and divert construction and demolition waste (minimisation, sorting and processing infrastructure, separation of material);
- bans or limits for organic waste to landfill – potentially by 2030;
- increase gas capture from Class 1 landfills (regulations requiring gas capture, investigate additional gas capture); and
- improve waste data including a national operator licensing scheme (which will improve information on greenhouse gas emissions).

The Plan includes a 'waste pathway to 2035' which is highly consistent with the New Zealand Waste Strategy. Key actions over the next ten years include:

- 2023: organic waste prevention programmes and increased investment in resource recovery

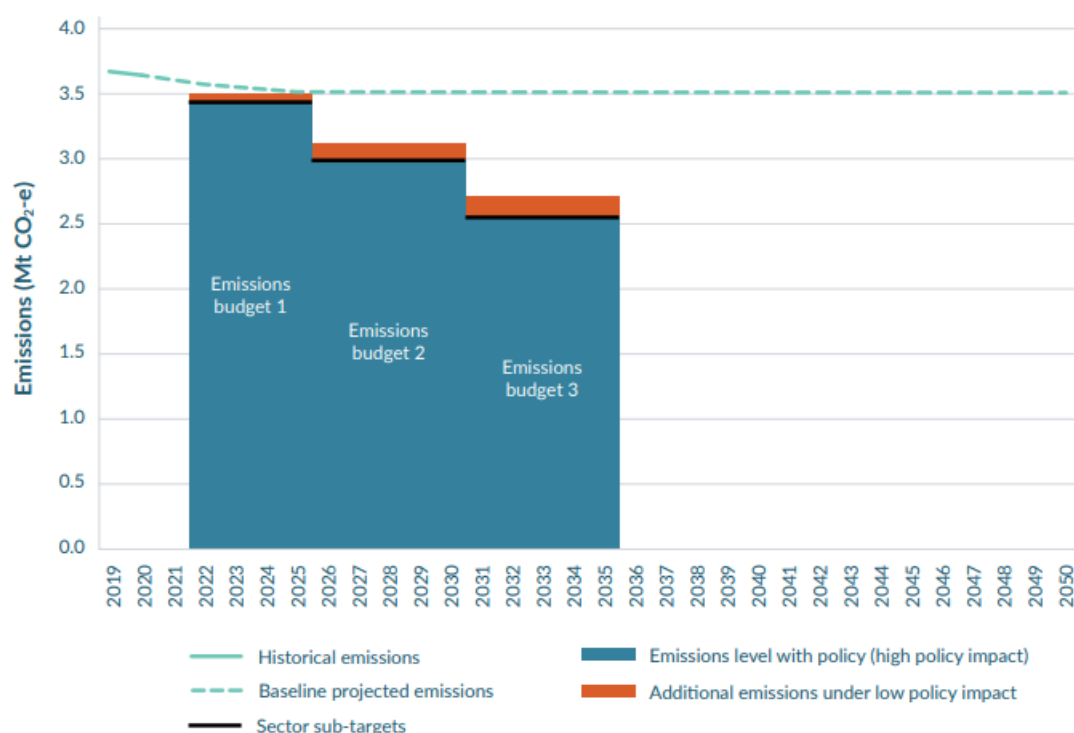
² <https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf>

- 2024: new waste legislation, national waste reporting, wider coverage of kerbside organics collections, more organics recovery/processing
- 2025: new regulations to drive emissions reduction, national waste licensing, all Class 1 landfills capturing gas
- To 2030: possibly organic waste landfill limits or bans
- To 2035: target of 40% reduction in biogenic methane (from 2017 levels)

New Zealand has a long-term target of net zero greenhouse gases by 2050, and a specific target for biogenic methane of 24 – 47% reduction by 2050 under the Climate Change Response Act (2002 Act).

It is worth noting that even with all of the initiatives proposed this would still fall short of achieving the first sub-target for the waste sector (2022 – 2025) but will come very close to the target in the period 2026 – 2035, as shown in the chart below:

Figure 2: Total projected methane emissions from waste showing the impact of proposed combined waste policy options



Source: Ministry for the Environment. 2022. *Te hau mārohi ki anamata | Towards a productive, sustainable, and inclusive economy*. Wellington: Ministry for the Environment. This assumes 40% of food waste diverted to composting and 60% to anaerobic digestion and 100% of green waste to composting.

1.5.3 Waste Minimisation Act 2008

As signalled during consultation and in the recently-released *Te rautaki para | New Zealand Waste Strategy*, MfE is also currently working on a review of the WMA to improve or amend provisions and consider new provisions. The provisions for use of landfill levy funds and the administrative and decision-making processes around this use will also be reviewed and improved. As for the waste strategy, consultation on possible changes took place during November/December 2021.

This review will also consider whether, and how, the Litter Act (1979) could be reviewed to better integrate with and support the WMA. In July 2023, MfE proactively released cabinet papers, a regulatory impact statement, and minutes of decisions for the initial stages of this process (occurring during March 2023). These proposals include the intention to replace the WMA and the Litter Act with a new single Act.

The WMA has been amended by the 2021 waste disposal levy regulations³, which set out the progressive increase and expansion of the landfill levy starting 1 July 2021; and supplemented by regulations banning specific items, including microbeads⁴ (2017), plastic shopping bags⁵ (2018), and numerous tranches of plastics packaging during 2022 and 2023, as described in section **Error! Reference source not found..**

Currently, the WMA provides for half of the revenue from the waste levy to be distributed to territorial authorities (Tas). These funds are provided pro rata, based on population, and must be spent on waste minimisation and in accordance with each authority's Waste Minimisation and Management Plan (WMMP).

The waste disposal levy is outlined further in the following subsection.

1.5.4 Waste Disposal Levy and Information Reporting

In April 2021 the government introduced regulation to expand the scope of the levy from Class 1 landfills to also include classes 2-4,⁶ and to require operators of industrial 9onofilis and Class 5 fills to report data on the quantity of waste received. Section 2.1 defines the different types and classes of fills.

The table below shows the timetable and rates for the new levy regime:

Table 1: Levy Rates by Disposal Facility Type and Year

DISPOSAL FACILITY CLASS	1-Jul-21	1-Jul-22	1-Jul-23	1-Jul-24
Municipal landfill (class 1)	\$20	\$30	\$50	\$60
Construction and demolition fill (class 2)		\$20	\$20	\$30
Managed fill (class 3)			\$10	\$10
Controlled fill (class 4)			\$10	\$10

<https://www.mfe.govt.nz/waste/waste-and-government>

As the landfill levy is expanded and raised, there will be an impact on the quantity of material going to the different destinations; however, the extent to which this occurs, and

³ <https://www.legislation.govt.nz/regulation/public/2021/0068/latest/LMS474556.html#LMS474591>

⁴ https://www.legislation.govt.nz/regulation/public/2017/0291/latest/DLM7490715.html?search=ts_act%40bill%40regulation%40deemedreg_microbeads_resel_25_a&p=1

⁵ <https://www.legislation.govt.nz/regulation/public/2018/0270/6.0/whole.html>

⁶ <https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html>

for which materials, depends on a number of other factors. The potential impacts are explored further in appendix A.4.0.

The requirement for all fills to at least report data on the quantity of waste received will provide much greater understanding of the role that all types of facilities play in waste management. These requirements take effect from the beginning of 2023 at the latest with Class 3/4 disposal facilities, cleanfills, transfer stations, and industrial monofills the last to start reporting (from 1 January 2023).

Anecdotally, there is evidence that some facilities are choosing to close rather than comply with the requirements to register and pay the levy and/or report waste quantities.

1.5.5 Emissions Trading Scheme (ETS)

Since 2013, Class 1 landfill owners have been required by the Climate Change (Emissions Trading) Amendment Act 2008 to surrender emission units to cover methane emissions. If any solid waste incineration plants are constructed, this act would also require emission units to be surrendered to cover greenhouse gas emissions from the incineration of household wastes.

The number of emissions units that needs to be surrendered is based on a calculation of how much methane is generated from a tonne of waste. As a starting point, landfills use a default emissions factor for waste (DEF). This is the methane assumed to be generated by each tonne of waste and is currently set at 0.91 tonnes of CO₂-e (CO₂ equivalent) per tonne of waste.

However, landfill operators can reduce their liabilities under the ETS through use of a unique emissions factor (UEF). The UEF is a calculation of methane released by the specific landfill. This can be done by either capturing the methane that is generated or showing (based on the type of waste going into the landfill) that the landfill generates a different amount of methane to the default.

1.5.5.1 Carbon Price

The other component of the calculation of a landfill's liability under the ETS is the price of carbon. New Zealand units (NZU)⁷ currently change hands for between \$70 and \$85, with prices at \$77.50 at the time of writing⁸.

The cost of NZUs has been increasing steadily for the last couple of years, due largely to changes made to the types of offsets that are eligible under the ETS. Class 2-5 landfills and closed landfills (along with certain other excluded landfills) are not currently covered by the ETS.

The implications of the ETS and carbon prices are explored further in appendix A.4.8.

⁷ NZUs are carbon credits that are officially accepted to offset liabilities under the NZETS

⁸ Accessed from <https://www.carbonnews.co.nz/tag.asp?tag=Carbon+prices>

1.5.6 Other Relevant Initiatives

1.5.6.1 Container Return Scheme

Container return schemes (CRS) place a deposit on all containers when sold. This deposit can then be redeemed by consumers when they return the containers. These schemes are in wide use worldwide including Australia and are designed to promote higher rates of recovery of containers and reduce littering by providing an incentive to consumers.

In 2019, a WMF-funded project led by Auckland Council and Marlborough District Council embarked on the research and design of a potential container return scheme for New Zealand. The outcomes from this project were reported to MfE, who have analysed the information and produced advice for ministers.

MfE consulted on a detailed implementation proposal for a container return scheme in New Zealand. This was included in the ‘Transforming Recycling’ consultation document.

The consultation document proposed a deposit of 20c per container for a wide range of beverage containers, excluding ‘fresh milk’ (the logic being that this product is rarely consumed outside the home). Depending on the details of the eventual CRS, and the extent to which containers may be captured in the scheme, two key effects on household kerbside recycling collections are likely:

- The quantity of containers collected in a kerbside collection would reduce; and
- The value of containers that are part of the CRS, but are still collected in a kerbside collection, will likely result in income for the ‘owner’ of the items. Usually, the owner is either the Council and/or its contractor.

Possible implications for Councils may be that the frequency of recycling collections could be reduced due to lower volumes of material.

In early 2023, government announced that the CRS development would be put on hold. This position has since been softened to a ‘delay’ but it remains unclear when, or how, a CRS would be introduced for New Zealand.

1.5.6.2 Kerbside Standardisation

In 2019, WasteMINZ was commissioned by MfE to complete a national review of kerbside collections and make recommendations as to how to achieve consistency across the country. The report was completed in 2020⁹, and MfE then considered implementing the three main recommendations:

1. A standard set of items accepted in kerbside recycling collections
2. Glass collected separately to other material streams
3. A weekly kerbside food scraps collection service for households.

⁹ <https://www.wasteminz.org.nz/wp-content/uploads/2020/08/Final-1.0-Standardising-Kerbside-Collections-in-Aotearoa.pdf>

MfE consulted on a detailed implementation proposal for kerbside standardisation in New Zealand. This was included in the 'Transforming Recycling' consultation document¹⁰.

The proposals included, alongside the points above from the original review, options to achieve the diversion of food scraps from businesses. The three possible options set out in the consultation document are:

- Phasing in source-separation of food scraps only from businesses that produce or sell food;
- Phasing in source-separation of food scraps from all businesses; or
- Prohibiting the disposal of food scraps to landfill entirely (which would also preclude disposal of food scraps from household sources).

In March 2023, MfE announced its decisions regarding kerbside standardisation alongside the release of Te rautaki para /New Zealand Waste Strategy. The key aspects are:

- Standardising materials in existing council kerbside recycling collections by 1 February 2024 to: glass bottles and jars, paper and cardboard (including pizza boxes), plastic bottles and containers grades #1, #2, and #5, and aluminium/steel tins and cans.
- Requiring council kerbside recycling to be provided to households in urban areas (defined as those with more than 1000 people¹¹) by 2027
- Council food scraps collections to be provided to households in urban areas (defined as above) by 2030, or earlier if a nearby processing option is available¹²

MfE advise it will also be working on business food scrap diversion by 2030.

Kerbside standardisation excludes tetrapak and other gabletop/liquid paperboard containers, foil, aerosols, soft plastics, polystyrene, and plastic bottles and containers other than those mentioned above. Councils will have the discretion to choose whether or not to include compostable bin liners in organics collections, and can also choose whether to collect glass separately or comingled with other materials.

Kerbside standardisation will only apply to council-provided services (either in-house or via a contractor) for now, with the hope that the private and community sector will choose to align their kerbside services with these requirements. However, MfE have indicated that they intend to provide for kerbside standardisation to be regulated more widely through the new version of the WMA.

The kerbside standardisation changes also include performance standards for household waste kerbside diversion, and reporting requirements for private waste companies.

The performance standards relate to kerbside recycling and food waste, and set an increasing proportion of all household kerbside waste (including that handled by private collections) diverted from landfill:

- 30% by July 2026

¹⁰ <https://environment.govt.nz/assets/publications/Transforming-recycling-consultation-document.pdf>

¹¹ As defined by StatsNZ as 'small urban areas', and shown on the StatsNZ Arc GIS system based on 2022 data.

¹² Defined as within 150km of a 'main centre'.

- 40% by July 2028
- 50% by July 2030

Councils that do not comply with the requirements to collect a standard set of kerbside recycling materials, and/or meet the minimum diversion requirements, can have all or part of their waste levy allocation withheld. Once withheld, this is not available at a later date (i.e. even if the council becomes compliant shortly after the due date, the levy funds will not then be released). Councils and private collectors will report their diversion figures to MfE, and MfE will advise the overall performance for the district or city.

Councils that do not comply with the requirement to provide a kerbside recycling and food scraps collection service to householders in applicable urban areas will not, at this point, have waste levy funds withheld; however, it is likely that there will be regulatory requirements introduced for these aspects at a later date, and it would be very difficult for a council to achieve the minimum diversion requirements without having these services in place.

The performance requirements will be enacted by a gazette notice under the WMA, and the two household kerbside collection provisions will be enacted by a regulation issued by the Governor-General.

Waimakariri's services are largely aligned with kerbside standardisation, except that aerosols will need to be removed from the kerbside recycling collection by 1 February 2024; and a few items will need to be removed from the food scraps and garden waste collection – paper hand towels, serviettes and (potentially) tea bags.

Areas that kerbside collections must be provided to in the district include Kaiapoi, Rangiora (both 'medium' urban areas), Pegasus, Woodend, and Oxford.

1.5.6.3 TA Performance Reporting

In addition to the proposals for a container return scheme and the standardisation of kerbside recycling, the MfE's consultation also covered a number of related issues.

One of these was the requirement for TAs to report to MfE on a number of performance standards/targets; including a minimum 50% diversion standard for dry recyclables and food scraps in kerbside collections. This is supported by a 70% high performance 'stretch target' which would be non-enforceable, but is intended to further encourage and motivate TAs.

The proposal was that the minimum standard would need to be achieved by 2030, to align with timeframes proposed in the draft New Zealand Waste Strategy and the ERP.

Some TA performance targets have now been confirmed in the outcomes from the kerbside standardisation, as discussed in the section above.

1.5.6.4 Priority Products

The WMA enables a product to be named as a 'priority product'. Once a product has been named such, an extended producer responsibility approach must be taken and a regulated product stewardship scheme development.

The first six priority products were named under the WMA in 2020 (shown below) and subsequently single-use packaging has been added. The first seven priority products named are:

1. Plastic packaging
2. Tyres
3. Electrical and electronic products (e-waste including large batteries)
4. Agrichemicals and their containers
5. Refrigerants
6. Farm plastics
7. Single-use plastic packaging

MfE has taken a 'co-design' approach, which involves industry developing and operating product stewardship schemes with central government oversight. Progress on the schemes, and parties involved, are summarised below.

Priority product	Progress made	Lead agency/ies
Tyres	Consultation on proposed regulations late 2021 Scheme accredited October 2020 Regulation in effect from late 2023	Tyrewise
Large batteries	Consultation on proposed regulations late 2021 Accreditation expected late 2023 Regulation in effect from 2024	Battery Industry Group
Refrigerants (and other synthetic greenhouse gases)	Consultation on regulations in late 2022 Scheme accreditation mid 2023 Regulation in effect from 2024	Synthetic Refrigerant Stewardship group
Farm plastics, agrichemicals and containers (farm waste)	Consultation on regulations planned late 2023	The Agrecovery Foundation
Electrical and electronic products (e-waste)	Scheme design in 2023 Consultation on regulations in 2024	TechCollect
Plastic packaging	Co-design underway	Packaging Forum and Food & Grocery Council

1.5.6.5 Product Bans

In April 2022, MfE announced that regulations had been passed to enable the implementation of the first tranche of bans for problematic plastic items. These regulations include:

- Plastic cotton buds;
- Plastic drink stirrers;
- Oxo- and photo-degradable plastic products;
- Certain PVC food trays and containers (pre-formed and rigid);
- Polystyrene takeaway packaging; and
- Expanded polystyrene food and beverage packaging.

The bans took effect from 1 October 2022.

From 1 July 2023 the following plastic items have been banned:

- Single-use plastic produce bags;
- Single-use plastic tableware and cutlery;
- Plastic straws¹³; and
- Non-home compostable plastic produce labels (phase-out by 2030)¹⁴.

One more ‘tranche’ of bans is planned. From mid-2025, all other PVC and polystyrene food and beverage packaging will also be banned.

1.5.6.6 Infrastructure Investment Strategy

With the increased and expanded landfill levy comes an increased pool of funds that can be invested in waste management and minimisation initiatives.

MfE is developing a proactive strategic investment plan for waste infrastructure, supported by a detailed stocktake of current infrastructure and prioritisation of possible new infrastructure. The goal of this work is to give a national view of the waste investment New Zealand needs over the next 15 years.

The outcomes will be incorporated into the action and investment plan that will supplement Te rautaki para, and will be released in the first half of 2024.

In April 2023, MfE released a summary report of the infrastructure assessment carried out by Eunomia in 2021¹⁵.

1.5.6.7 Data and Monitoring

Alongside the increase and expansion of the waste levy, MfE is developing protocols to collect data from the additional facilities that will now be paying the landfill levy (Class 2-4 landfills).

MfE has also adopted regulations that enable the collection of some data from Class 5 fills and transfer stations¹⁶, and has proposed an approach for performance reporting by TAs in the current consultation. These protocols will be included in the revised National Waste Data Framework, which will be completed in mid-2023.

¹³ Apart from sales to disabled people and those with health conditions

¹⁴ Produce labelled before 1 July 2023, and already in the supply chain, is not affected. Label adhesive, and labels on imported produce, must be home compostable by 1 July 2025.

¹⁵ Eunomia (2023) “Waste and Resource Recovery Infrastructure and Services Stocktake Summary Report”, available at www.mfe.govt.nz

¹⁶ <https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html>

MfE has also indicated that it is likely the new Waste Minimisation Act will also include requirements for waste operators to be licensed by a central agency, and to report data on the quantities of waste handled; and that requirements for construction site waste management plans (SWMP) will be included in a revision of the Building Act. It is not clear what the timeframes or specific requirements will be for these.

1.5.7 Resource Management Act Review

Government has resolved to replace the Resource Management Act (RMA) with two new Acts; the Spatial Planning Act, and the Natural and Built Environment Act. These are currently making their way through Parliament as Bills.

The increased abilities and requirements for spatial planning will have a positive impact on waste management; in particular infrastructure, as demand and supply of waste infrastructure will be an essential consideration under a spatial planning approach.

However, there is no specific reference to waste in the Bills, and so the extent to which waste planning will be undertaken successfully for the Canterbury region (by the applicable Regional Planning Committee) will depend on local implementation of the provisions.

The Bills both propose a more significant role for iwi in regional-scale planning, which could result in an approach that is more aligned with te ao Māori principles and a circular economy approach to waste management and minimisation.

1.5.8 International Commitments

New Zealand is party to the following key international agreements:

- 1) Montreal Protocol – to protect the ozone layer by phasing out the production of numerous substances
- 2) Basel Convention – to reduce the movement of hazardous wastes between nations
- 3) Stockholm Convention – to eliminate or restrict the production and use of persistent organic pollutants
- 4) Waigani Convention – bans export of hazardous or radioactive waste to Pacific Islands Forum countries.

These agreements are explained in more detail in appendix A.4.0.

1.6 Local and Regional Planning Context

This Waste Assessment and the resulting WMMP will have been prepared within a local and regional planning context whereby the actions and objectives identified in the Waste Assessment and WMMP reflect, intersect with, and are expressed through other planning documents. Key planning documents and waste-related goals and objectives are noted in this section.

Council is a member of the Canterbury Waste Joint Committee (CWJC), through which the nine councils of the Canterbury region collaborate on a number of waste minimisation projects. The CWJC has recently employed a regional waste projects officer.

1.6.1 Long Term Plan

Council's current LTP was adopted in June 2021, with Council's purpose stated as to "make Waimakariri a great place to be, in partnership with our Communities, guided by our outcomes".

The LTP includes a number of community outcomes, which describe how Council aims to meet the needs of the community. Relevant community outcomes for waste include that:

- Effect is given to the principles of the Treaty of Waitangi
- There is a healthy and sustainable environment for all
- Core utility services are sustainable, resilient, affordable and provided in a timely manner (with a specific point that waste, recycling, and re-use of solid waste is encouraged and residues are managed so that they minimise harm to the environment)

The LTP highlights a few demographic factors with particular impacts on solid waste management, such as:

- an increasingly elderly population could result in less waste, as smaller households with older residents tend to produce less;
- this effect could, however, be offset to an extent by an increase in age-related medical waste;
- increasing numbers of residents living in aged care facilities that use private waste services may see Council's market share decrease; and
- an increasing population and new residential areas in the district could drive demand for new facilities such as transfer stations.

Several waste-related projects are planned during the term of the LTP –

- An upgrade of the Southbrook Resource Recovery Park (SRRP) reuse and recycling area and education centre during 2021 – 2024;
- An upgrade of the SRRP disposal pit in two stages between 2021 and 2025; and
- A further expansion of the SRRP indicated during 2037 – 2039.

The LTP also specifically notes the landfill levy expansion and increase, and the impact this will have on Council's solid waste charges; and that proposed new reporting requirements may necessitate some capital works and operational changes at the Oxford refuse transfer station (RTS) and two other disposal sites. The LTP indicates that the cost of these upgrades could potentially be funded from Council's levy funding.

The principal goal for solid waste management is "to provide an effective and efficient service for households and businesses to dispose of waste at an affordable cost, and encourage practices that minimise waste generation".

1.6.2 Canterbury Regional Council

The Canterbury Regional Policy Statement (CRPS) became operative on 15 January 2013. The CRPS provides an overview of the resource management issues in the Canterbury region, and the objectives, policies and methods to achieve integrated management of natural and physical resources. Other Regional Plans and District Plans cannot be inconsistent with the CRPS.

Chapter 19, Waste Minimisation and Management, contains objectives and policies for waste management in the region and methods to achieve them.

Objective 19.2.1 – Minimise the generation of waste

Adverse effects on the environment are avoided by minimising the generation of waste.

Objective 19.2.2 – Minimise adverse effects of waste

Adverse effects on the environment caused by residual waste and its management are avoided, remedied or mitigated.

Policy 19.3.1 – Waste management hierarchy

To apply the principles of the 5Rs (Reduce, Reuse, Recycle, Recover, Residual waste management) hierarchy to the management of all waste streams.

This policy implements the following objectives: Objective 19.2.1, Objective 19.2.2

Methods:

The Canterbury Regional Council:

Will: (1) Set out objectives and policies, and may include methods in regional plans to manage the disposal of residual waste through the control of disposal processes and practices. (2) Set out objectives and policies, and may include methods in regional plans that will require consideration of the adverse waste effects with regard to discharges to land, air and water and in any land-use over which a regional plan has control.¹⁷

Should: (3) Advocate the implementation of the 5Rs principles throughout the Canterbury region. (4) Support product stewardship programmes aimed at the reduction of waste. (5) Advocate for and encourage the reuse of materials, particularly in industry.

Territorial authorities:

Should: (6) Set out objectives and policies, and may include methods in district plans specifically seeking to reduce the potential waste generated as a result of the use of land. (7) Take into account the 5Rs hierarchy when considering waste management options and plans (including, but not limited to district plans) for their districts.

Local authorities:

Will: (8) Engage with Ngāi Tahu as tāngata whenua and use iwi management plans to assist in informing them of Ngāi Tahu values associated with the management of waste, and of methods to avoid conflict with particular values in the application of the 5Rs principles.

Policy 19.3.2 – Reduce waste at the source

Promote a change in behaviour that will result in the reduction of waste at the source.

This policy implements the following objectives: Objective 19.2.1, Objective 19.2.2

Methods:

¹⁷ Both the Canterbury Land & Water Regional Plan and the Canterbury Air Regional Plan address some of the adverse waste effects.

The Canterbury Regional Council:

Should: (1) Develop public education initiatives throughout Canterbury that endorse the 5Rs, with particular focus on reduction of waste through consumer choice. (2) Advocate for stronger national guidance and incentive for reducing waste, particularly at the manufacture/ production/import stage.

Policy 19.3.3 – Integrated management of waste

Promote an integrated approach to waste management in the region.

This policy implements the following objective: Objective 19.2.2

Methods:

The Canterbury Regional Council:

Should: (1) Support territorial authorities to maintain an integrated approach to management of waste in the region. (2) Advocate, to, and cooperate and coordinate, with territorial authorities, central government, Kāi Tahu and industry, to achieve an integrated approach to the management of waste.

Policy 19.3.4 – Establish community waste transfer facilities

Enable the establishment and use of appropriate community facilities and services such as waste-transfer facilities and recycling centres throughout the region.

This policy implements the following objective: Objective 19.2.2

Methods:

The Canterbury Regional Council:

Should: (1) Encourage the use of community waste-transfer facilities and recycling centres through education and, where appropriate, enforcement action. (2) Support Government and industry-led product stewardship programmes

Territorial authorities:

Will: (3) Set out objectives and policies, and may include methods in district plans to enable the establishment of waste transfer facilities in appropriate locations. Should: (4) Encourage and promote the use of community waste transfer facilities.

The regional council has also adopted a Land and Water Regional Plan which was last significantly updated in 2018.

There are several relevant points from the Plan with respect to waste management:

- Disposal of less than 50m³ to land that is not excavated to more than 5 metres in depth is a permitted activity
- Disposal of more than 50m³ to land to land that is excavated more than 5 metres in depth is a controlled activity, provided the material is cleanfill (which is aligned with nationally-accepted definitions of cleanfill)

This essentially makes the majority of true cleanfills (Class 5) in the region a controlled activity.

1.7 Our District

This section presents a brief overview of key aspects of the district's geography, economy, and demographics. These key aspects influence the quantities and types of waste generated and potential opportunities for the Council to manage and minimise these wastes in an effective and efficient manner.

The figure below shows the Waimakariri district, and its location within the wider Canterbury region.

Figure 3: The Canterbury Region



Rangiora is the district's principal settlement, and along with other towns nearby Kaiapoi, Pegasus, and Woodend accounts for more than 80% of the population. Oxford, to the west, is the other main town in the district. The district also has a number of smaller villages and four coastal settlements. All towns of the district are within commuting distance of Christchurch.

The 2021 LTP estimated the 2020 population of the district to be 64,700 (around 25,000 households), with strong population growth a key demographic feature; with the population expected to exceed 80,000 by 2033.

The number of households is forecast to increase slightly faster than population, which will then result in a reduced average household size from 2.59 currently, and compared to the national average of 2.7 people per household.

Waimakariri's population is also ageing, with the proportion of the population aged over 65 years increasing from 19.0% in 2018 to 19.8% in 2020; and the district's median age is slightly higher than the national average.

1.7.1 Tangata Whenua

The area now known as the Waimakariri district historically hosted the primary pa of Kāi Tahu, in what is now known as Kaiapoi. The local hapu is Kai Tūāhuriri, which signed a memorandum of understanding with Council in 2003 (renewed in 2012).

Council and the Runanga hold annual hui, covering a number of issues including consideration of possible long-term plan and annual plan content.

A joint development committee, Mahi Tahi, was established in 2019 to enable joint decision-making about issues that impact both organisations, with three representatives from Te Kāi Tūāhuriri Runanga and three from Council. This is supported by bi-monthly forums.

2 Waste Infrastructure

The facilities available in Waimakariri are a combination of those owned, operated and/or managed by Council, and those that are owned and/or operated by commercial entities or community groups.

This inventory is not to be considered exhaustive, particularly with respect to the commercial waste industry as these services are subject to change. It is also recognised that there are many small private operators and second-hand goods dealers that are not specifically listed. However, the data is considered accurate enough for the purposes of determining future strategy and to meet the needs of the WMA.

2.1 Disposal Facilities

In 2021, MfE adopted regulations to extend the landfill levy and apply information requirements to facilities that do not pay the landfill levy. These regulations also established legal definitions for disposal facilities.

Previously, disposal facilities had been categorised according to the 2016 Waste Management Institute of New Zealand (WasteMINZ) Technical Guidelines for Disposal to Land.¹⁸ As there are differences, albeit slight, between the two; the legal definitions take precedence¹⁹.

The definitions of the six classes of disposal facilities in the regulations are summarised below.

Class 1 - Municipal Disposal Facility

Accept any of the following:

- Household waste
- Waste from commercial or industrial sources
- Waste from institutional sources
- Green waste
- Waste that is not accepted at Class 2-5 disposal facilities.

Class 2 – Construction and Demolition Disposal Facility

Accepts waste from construction and demolition activities. Does not accept Class 1 waste.

Classes 3 and 4 – Managed or Controlled Fill Disposal Facility

Accepts any of the following:

- Inert waste material from construction and demolition activities
- Inert waste material from earthworks or site remediation

Does not accept Class 2 waste.

¹⁸ www.wasteminz.org.nz/pubs/technical-guidelines-for-disposal-to-land-april-2016/

¹⁹ www.legislation.govt.nz; It is likely that the Technical Guidelines will be revised so it is aligned as closely as possible with the MfE definitions.

Class 5 – Cleanfill

Accepts only virgin excavated natural material (such as clay, soil, or rock) for disposal

Industrial Monofill

A facility that accepts disposal waste that:

- Discharges or could discharge contaminants or emissions
- Is generated from a single industrial process (e.g. steel or aluminium making, or pulp and paper making) carried out in one or more locations.

The actual wording used in the regulations and examples of types of waste accepted at each facility is provided in Appendix A.4.0.

The regulations also define a transfer station as a facility that receives waste and where waste is then transferred to a final disposal site or for further processing. Significantly, if a site does not accept waste that is then transferred to a final disposal site (i.e. residual waste), it is not a transfer station (but is instead a recycling drop-off site or similar) and isn't required to report data.

2.1.1 Class 1 Disposal Facilities

There are no Class 1 disposal facilities within the district.

Waste from the district is disposed of at Kate Valley landfill in the Waipara area of Hurunui District. The landfill facility is currently consented to 2040. The landfill facility and transportation of waste to the facility is operated by Transwaste Canterbury Ltd.

The Waimakariri District Council is a shareholder in Transwaste Canterbury Ltd, a joint venture company with four other Canterbury Councils (50% shareholding), and Canterbury Waste Services Ltd (50% shareholding). Canterbury Waste Services is 100% owned by Waste Management NZ Ltd. Transwaste Canterbury have had a gas capture unique emissions factor (UEF) in place since 2017 of 0.119 which, compared to the national average, suggests the maximum 'allowable' gas capture under the emissions trading scheme of 90%.

Particularly given the council's involvement in the ownership and governance of Kate Valley landfill, it is considered that this is a reliable disposal avenue that will be available for some time into the future.

2.1.2 Transfer Stations and Recycling Drop-off Points

Refuse transfer stations or resource recovery parks (RRPs) and recycling drop-off points (RDOPs) provide for those that can't or choose not to make the journey to a disposal facility. Waste can be dropped off at these sites by the public and commercial collectors after paying a gate fee, and the waste is subsequently compacted before transport to a Class 1 disposal facility.

Council operates two RTS, located in Rangiora (part of SRRP) and Oxford, which are operated by Waste Management Ltd under contract to Council. Waste from Oxford RTS is transported to the RTS at SRRP and then to Kate Valley landfill.

A private RTS opened in Rangiora in July 2023, which accepts kerbside rubbish and bulk waste and bulks this for transport to Kate Valley.

The SRRP is a well laid-out and maintained site. A wide range of materials can be diverted through the SRRP, including:

- usual household recyclables;
- whiteware and scrap metal;
- electronic and electrical equipment (charges apply);
- greenwaste (at a charge);
- household hazardous waste (up to 20 litres or 20kg) including chemicals, fuels, oil, paint, household batteries and CFL bulbs;
- large lead-acid batteries;
- reusable items including household goods and furniture;
- clean polystyrene packaging (a charge applies to large loads);
- child safety restraint recycling (charges apply);
- cleanfill (at a charge); and
- laminated window glass (at a charge).

There is a reuse shop at the SRRP.

There is a smaller RTS in Oxford which accepts a smaller range of items –

- usual household recyclables;
- whiteware and scrap metal;
- electronic and electrical equipment (charges apply);
- greenwaste (only branches suitable for mulching); and
- household hazardous waste (up to 20 litres or 20kg) including chemicals, fuels, oil, paint, household batteries and CFL bulbs.

There is also a small RDOP provided by Council in Cust, for rural residents who live in the vicinity, which accepts the usual household recyclables.

2.1.3 Closed Landfills

Council manages five closed landfills at Rangiora, Kaiapoi, Oxford, Mandeville, and Cust. Landfill management plans are in place for the sites, which ensure consent compliance and identification/monitoring of potential risks including those to public health.

2.1.4 Class 2-5 Landfills

Research estimates that waste disposed of to land other than in Class 1 landfills accounts for approximately 70% of all waste disposed of, and these operators are not required currently to pay the waste levy to central government and some have only recently started reporting waste quantity data.²⁰ Other disposal sites include Class 2-5 fills and farm dumps.

The Waimakariri District Plan²¹ defines cleanfill:

²⁰ Ministry for the Environment (2014) Review of the Effectiveness of the Waste Disposal Levy. The report estimates 56% of material disposed to land goes to non-levied facilities, 15% to farm dumps and 29% to levied facilities.

²¹ OPERATIVE DISTRICT PLAN August 2014

“includes any natural material which is free of: combustible, putrescible, degradable or leachable components or materials likely to create leachate by means of biological breakdown; hazardous substances or any products or materials derived from hazardous waste treatment, stabilisation or disposal practices; contaminated soil or other contaminated materials; medical or veterinary waste; asbestos or radioactive substances. It includes (but is not limited to) clay, rock, concrete and bricks”

This definition is very similar to, but not exactly the same as, the Ministry for the Environment’s Cleanfill Guidelines which also exclude liquid waste.²²

The District Plan has defined various Permitted Activities including:

Deposition of clean fill, not including deposition of any demolition material; limited to:

- *the Rural A and B zones, and*
- *a maximum of 200m³ on any one site per annum.*

In the MfE’s 2002 “A Guide to the Management of Cleanfills” ‘cleanfill’ is defined as:

“Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:

- *combustible, putrescible, degradable or leachable components*
- *hazardous substances*
- *products or materials derived from hazardous waste treatment, hazardous waste*
- *stabilisation or hazardous waste disposal practices*
- *materials that may present a risk to human or animal health such as medical and*
- *veterinary waste, asbestos or radioactive substances*
- *liquid waste.”*

Class 2-5 landfills can be an issue for effective and efficient waste management as, for some materials, these disposal sites are competing directly with other options such as composting sites and Class 1 landfills. However, Class 2-5 landfills are much less costly than Class 1 landfills to establish and require much lower levels of engineering investment to prevent discharges into the environment. Class 2-5 landfills also have much lower compliance costs than Class 1 landfills and are not required to pay the waste levy at this time. Because of these differing cost structures, Class 2 landfills charge markedly less for disposal than Class 1 landfills.

From 1 July 2022, Class 2 disposal facilities have been required to pay the levy at a rate of \$20 per tonne (going up to \$40 per tonne in 2024). Class 3 and 4 disposal facilities will be required to pay the levy from 1 July 2023 at a rate of \$10 per tonne. True Class 5 disposal facilities (accepting VENM only) will not be required to pay the levy, but have been required to report on quantities from 1 January 2023.

²² Ministry for the Environment (2002) ‘A Guide to the Management of Cleanfill’s.

Class 2 disposal sites and RTS were required to start reporting data on waste quantities from 1 January 2022.

Following these changes, MfE will hold data on the quantities of waste disposed of at these sites and are in the process of developing a database of Class 2-5 facilities around the country. This data indicates that, so far, five sites have been identified in the Waimakariri district (three owned by Council, and two privately owned).

Of the three Council sites, two are operational managed landfills (classified as Class 3/4) located at West Eyreton ('Garterys Pit') and Fernside ('Sutherlands Pit') which are only available to customers registered with Council. All three Council-owned sites, including 'Woodstock Pit', are active quarry sites, and the road maintenance contractor is also consented to dispose of materials arising from their road maintenance works: these quantities are included in the monthly reporting figures.

Council is required to report to MfE on the quantities of waste disposed of at these sites, which is challenging under current operational practices with data based on self-reporting and converting volumes to weight. At some stage, Council is likely to also need to report on the activity sources of waste.

In some parts of New Zealand, Class 2/3/4 landfills are indicating that they will close before the deadline to register and pay the levy of 1 July 2022. There has been no indication as yet that any of the sites in Waimakariri would close.

2.2 Hazardous Waste Facilities and Services

The hazardous waste market comprises both liquid and solid wastes that, in general, require further treatment before conventional disposal methods can be used. The most common types of hazardous waste include:

- Organic liquids, such as those removed from septic tanks and industrial cesspits
- Solvents and oils, particularly those containing volatile organic compounds
- Hydrocarbon-containing wastes, such as inks, glues and greases
- Contaminated soils (lightly contaminated soils may not require treatment prior to landfill disposal)
- Chemical wastes, such as pesticides and agricultural chemicals
- Medical and quarantine wastes
- Wastes containing heavy metals, such as timber preservatives
- Contaminated packaging associated with these wastes.

A range of treatment processes are used before hazardous wastes can be safely disposed.

Most disposal is either to Class 1 landfills or through the trade waste system. Some of these treatments result in trans-media effects, with liquid wastes being disposed of as solids after treatment. A very small proportion of hazardous wastes are 'intractable', and require exporting for treatment.

These include polychlorinated biphenyls, pesticides, and persistent organic pollutants.

There are four participants in the local hazardous waste market; EnviroNZ Technical Services, Waste Management Technical Services, Prime Environmental, and Charlie's

Takeaways. Agrecovery provides hazardous waste management services for agricultural properties.

Household hazardous waste can be taken to the Southbrook and Oxford RTSs.

2.3 Waste Water Treatment

As outlined earlier in this report, waste water treatment is considered where it results in waste being managed through solid waste systems.

Wastewater management is covered by the wastewater activity plan, last updated in 2021.

Council manages four wastewater schemes supported by seven waste water treatment plants (WWTPs). The remainder of the properties in the district largely manage their wastewater through domestic septic tank systems, which can be serviced by one of a number of operators based in or near the district.

Sludges from the Oxford WWTP is dewatered and transported to Bromley WWTP in Christchurch, which then sends screenings to Kate Valley landfill. Sludges from settlement ponds are pumped into BioBags²³ and held in bunded areas while composting; with any leachate pumped back into the ponds. Once processing is complete, the contents of the BioBags will either be used as planted bunding (if heavy metal levels are too high) or used on site as topsoil (if heavy metal levels are low enough).

The future of wastewater management in the district, as across New Zealand, is currently somewhat uncertain depending on the implementation of the national three waters management proposals.

2.4 Recycling and Reprocessing Facilities

The main facility is the SRRP, with a more limited range of diversion options available at the Oxford RTS.

There are a number of other recycling and reprocessing facilities that accept material from the Waimakariri district. The key facilities are listed below.

Table 2: Other Recycling and Reprocessing Facilities

Name/Operator	Key services/waste streams	Location
5R	Window glass and colour-separated glass bottles and jars	Christchurch
Canterbury Landscape Supplies	Green waste	Kainga, Waimakariri District
Daltons	Various organic wastes	Christchurch

²³ <https://biobagworld.com/environment/biobag-waste-management/>

Eco Central	Comingled kerbside recycling from Council collections	Christchurch
Waste Management NZ Ltd	Commercial fibre (paper/cardboard), some plastics, polystyrene	Bromley, Christchurch
Living Earth	Garden waste (alongside waste from Christchurch City Council's and Waimakariri District Council's organic waste collections)	Christchurch
Multiple providers	Truck/tractor tyres, some smaller tyres	Christchurch
OJI Fibre Solutions	Recovered paper/cardboard fibre	Auckland
WasteCo	Some timber construction and demolition wastes	Christchurch
EnviroNZ	Industrial wastes and commercial recycling	Bromley, Christchurch
Various scrap metal recovery providers	Wide range of scrap metal; shredders located at MetalCorp and SIMS	Christchurch
Various e-waste recycling providers	Wide range of electronic and electrical waste	Christchurch, Amberley, Auckland, Wellington
Product stewardship	Agricultural plastic, containers, and chemicals	Various locations

In addition, there are a large number of charity shops, second-hand stores, and smaller scrap metal recyclers that have a role in diverting material from landfill disposal.

While many material types are transported out of the district and even out of the region for recycling and reprocessing, this is not an unusual situation in New Zealand and particularly in the lower South Island.

The availability of infrastructure that is accessible directly by residents and businesses, as opposed to by Council and its contractors, is not as extensive. However, SRRP offers a comprehensive range of services at a site with sufficient capacity for current material flows.

2.5 Assessment of Infrastructure

The Waimakariri district has reasonable access to infrastructure, particularly with the EcoCentral MRF located not far away and the regional landfill Kate Valley.

There is a lack of processing infrastructure for mixed C&D waste – provision for this material stream is poor nationally, outside of Auckland and, to a lesser extent, central Wellington.

If a natural disaster affected the three main facilities used out of the district (landfill disposal at Kate Valley, mixed organics processing at Living Earth, and recyclables processing at

EcoCentral) alternative sites are at a significant distance – the nearest landfill is in Marlborough or Dunedin, and recyclables and organics could be sent to an EnviroNZ facility in Redruth, near Timaru.

3 Waste Services

3.1 Council-provided Waste Services

A range of services are provided by Council to residents and businesses in the district.

3.1.1 Collection Services

Council provides collection services to just over 70% of occupied households in the district. These households are mainly located within towns and villages, but households located on the roads between these areas are also able to receive kerbside collections.

In 2019, Council made significant changes to kerbside collection services. Up till this point, kerbside services had included a weekly collection of bagged rubbish, from pre-paid bags, and a fortnightly rates-funded kerbside recycling collection for all areas that received the kerbside rubbish collection, with the addition of Ohoka.

Services offered now include:

- the bag-based kerbside rubbish collection service augmented by a weekly 80L or 140L wheeled bin collection, with bins charged through rates;
- all rubbish collections are now fortnightly, alternating with the recycling collection;
- in addition to the 240L recycling bins, 80L and 140L bins are available; and
- an optional, user-pays weekly organics collection is available, once again from 80L, 140L or 240L wheeled bins, charged through rates. This service is for food scraps and garden waste and is not available in rural Ohoka.

The charges for these services for the 2023/24 financial year are:

Service Type	Small	Medium	Large
Rubbish	\$3.70 per bag or around \$3.60 for twenty-five or more	80L bin \$108	140L bin \$144
Recycling	\$113/rural \$103		
Organics	80L \$90	140L \$122	240L \$174

Charges also apply for changes in service during the year, and it is possible to pay for additional recycling and organics services.

All three kerbside collection services are available to commercial properties; however, this is a domestic service and is not always able to provide the levels of service required by commercial customers. Schools are provided additional recycling bins (maximum one for every three classes) on request at no charge and can request additional rubbish and organics bins at the standard rate.

These services are provided on behalf of Council by Waste Management NZ Ltd.

Roughly 19,900 properties can access recycling and rubbish bin collection services, and the split of preferred services is shown below. Some properties have multiple dwellings and can

receive and be rated for additional recycling bins, with organics and rubbish bins also available to these additional dwellings.

Service Type	Small (bag-based rubbish collection)	Medium (80L for rubbish)	Large (140L for rubbish)
Rubbish	3,163	4,394	11,330
Recycling	21,224		
Organics	4,109	5,267	3,726

This shows that over 65% of the households that have kerbside organics services available to them have chosen to subscribe to this service, and 75% of the households with kerbside rubbish bin services available to them have opted in to using the rubbish collection service.

3.1.2 Other Council Services

In addition to the services described above, there are other waste-related programmes and services provided by Council e.g. removal of illegal dumping, and provision of litter bins.

Council also operates the two RRP in Southbrook and Oxford.

3.1.3 Waste Education and Minimisation Programmes

Council provides a range of communication and education initiatives to inform ratepayers, schools and services users of the available waste services and to promote waste minimisation. Key communication and education initiatives that Council supports include:

- Waste minimisation education for businesses
- Zero waste education for schools and the community
- Enviroschools programme for participating district schools
- Love Food, Hate Waste (national WasteMINZ-led initiative)

3.1.4 Solid Waste Bylaws

In addition to key strategic waste infrastructure assets, the Council also has responsibilities and powers as regulators through the statutory obligations placed upon them by the WMA. The Council operates in the role of regulator with respect to:

- management of litter and illegal dumping under the Litter Act 1979
- trade waste requirements
- nuisance related bylaws.

Council adopted its Solid Waste Management and Minimisation Bylaw in 2016²⁴, under the WMA (amongst other Acts). This means that the bylaw doesn't need to be reviewed until 2026.

The bylaw defines a 'waste operation' as "land or buildings to which waste is delivered for consolidation or for compaction and consolidation before being taken away for disposal; or any other land or buildings at which more than 30 tonnes of waste per annum is delivered and/or stored and then sent for disposal within the Council's district, or sent for further processing and/or disposal other than to Kate Valley Regional Landfill".

Waste operators require a licence from Council and operate according to terms and conditions of that licence – which includes the requirement to record data and report to Council.

The bylaw also includes:

- various minimum standards of handling and managing wastes from any property; and
- a number of other provisions intended to ensure waste is managed in a way that protects public health.

3.1.5 Summary of Council Services

Council's kerbside services are a fairly unusual combination of user-pays bags and bins, fortnightly recycling, and a mixed food scraps and garden organics (FOGO) collection. Few non-residential customers have access to these collections.

Over 65% of households have chosen to subscribe to the organics collection service, which is a high number for an optional service. A rates-funded organic waste collection service might be expected to achieve around 65-70% participation (usually defined as a household using the service at least once every four to six weeks). The proportion of households opting to subscribe to the organics collection service is considered to be analogous to a participation rate, on the assumption that a household would not pay for a service and then not use it at least once every few weeks.

A recent review of the provision of user-pays rubbish collection services by Auckland Council concluded that there was no significant waste reduction advantage in charging for residual waste collections as a user-pays service, rather than rates-funded. It appears that the main mechanism by which waste reduction can be encouraged is through restricting the capacity of residual waste collections, by providing smaller containers or by collecting less frequently.

This Council currently has the best of both worlds, by providing a user-pays bag service for households that only require a low capacity collection, while also providing a wheeled bin collection service that is apparently achieving a relatively high market share.

²⁴ https://www.waimakariri.govt.nz/_data/assets/pdf_file/0023/127094/Solid-Waste-and-Waste-Handling-Licensing-Bylaw-2016-Terms-and-Conditions-Amended-2019.PDF

Council's current approach of only providing smaller rubbish collection bins is likely to encourage the preferred behaviours such as recycling and other waste diversion, as long as restrictions remain in place on residual waste collection capacity.

3.2 Non-Council Services

Council does not provide kerbside collection services to businesses, unless they are eligible for the household kerbside collection service. Exceptions are made for schools which are provided additional recycling bins on request at no charge and can request additional rubbish and organics bins at the standard rate.

Instead, businesses can organise a rubbish collection service from one of the local private operators, or take rubbish directly to one of the RRP's for disposal. Private collection services are available from a number of private operators, but the market is dominated by Waste Management. Collections can be made from a range of containers ranging from drums and wheeled bins to large skip bins.

Several private operators also offer rubbish collection services to businesses and householders from 240L wheeled bins; such as Rangiora Rubbish Removal Ltd, Laffey Bins, Waimak Bins, WasteCo Ltd, and Waste Management.

Rural residents that are not able to access the Council's kerbside collection service can also have waste collected by private waste collection operators, as above.

3.3 Assessment of Services

The Council services include a number of variations on container types and sizes, which mean that customers have a high level of choice while still gaining the benefit of using Council-contracted services (usually better value than the private sector, due to economies of scale gains).

Some customers still use private kerbside rubbish collections, probably because they prefer to have a 240L wheeled bin provided. Based on data from elsewhere and previous surveys in the Waimakariri district, these customers are probably not diverting as much recyclables or organics as households that use smaller wheeled bins or bags for rubbish collections. In fact, the few 240L wheeled bins that were found in the recent audit contained around three quarters garden waste. These private kerbside services will also be used by rural properties that prefer a collection; although Council's service is available to a high proportion of households in the district (around 71%).

There are several companies providing commercial refuse collections, but only limited recycling collections focusing on common materials such as paper/cardboard and glass.

Council's FOGO collection is offered on a subscription or opt-in basis; even so, there is a reasonable level of uptake of the service. Changing the service to an opt-out service (where the service is provided to all eligible properties, apart from those that are exempted for reasons such as access or density) *may* result in a slight increase in capture of organic waste, through slightly increased participation. MfE is currently indicating that compliance with food scraps collection requirements will involve an opt-out service.

The kerbside recycling collection is currently fully comingled, as are all kerbside collections that feed into the EcoCentral MRF. Collecting glass separately could result in less loss of

recyclables through contamination; however, it would make sense for all councils using the EcoCentral MRF to make the decision to change the service structure cooperatively, with Christchurch being by far the biggest customer (and owner of EcoCentral as a CCO).

4 Situation Review

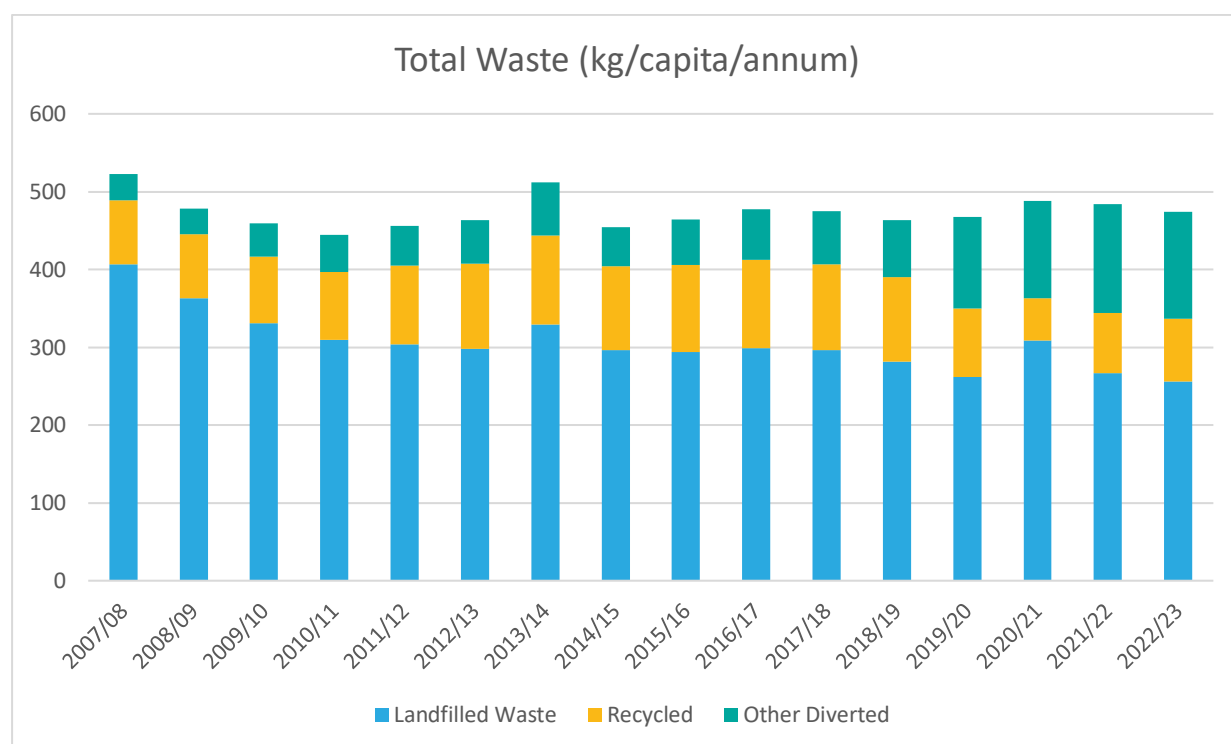
4.1 Waste to Class 1-5 Disposal

The terminology that is used in this section to distinguish sites where waste is disposed of to land are taken from the relevant MfE regulations, as discussed earlier in section 2.1.

4.1.1 Waste to Class 1 Disposal

The figure below summarises the historical waste flows in Waimakariri district, based on Council's records.

Figure 4: Waimakariri Waste Flows (2007 - 2021) (kg/capita)



The total waste to landfill from the district is roughly analogous to the quantity sent to Kate Valley landfill from the Southbrook RTS, shown below:

Table 3: Waste to Kate Valley Landfill from Southbrook RTS

Year	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023
Waste to landfill (tonnes)	14,761	16,800	16,136	16,582	17,258	17,545	17,080	16,464	19,953	17,658	17,394

There are several things to note:

- 1) There has been a notable increase in 'other diverted' since 2018/19, when the kerbside organics service started;

- 2) The increase in landfilled waste in 2020 related to ‘special wastes’, which in this case was contaminated kerbside recycling;
- 3) In July 2022 a private transfer station opened in the district and some waste, particularly ICI and C&D, will be reaching Kate Valley via this facility, estimated at 280 tonnes per month;
- 4) Overall, total waste quantities, per capita, have been reducing (apart from 2020).

It is estimated that, overall, another 65 tonnes of waste per week now reaches Kate Valley landfill without going through the Council’s facility first. This includes the waste sent to landfill from the new private RTS, and two collection companies collecting waste at the kerbside and disposing of this to facilities in Christchurch.

4.1.2 Waste to Class 2-5 Fills

There are no known Class 2 disposal facilities or industrial monofills in Waimakariri district, but five Class 3/4 landfills.

As discussed earlier in this report, there is very little information available regarding most cleanfilled waste as the Canterbury Regional Council considers these to be a controlled activity and does not require reporting on waste quantities.

A 2011 MfE report on non-levied disposal facilities stated:²⁵

No information about cleanfill quantities was compiled for this report because the few sites with available data are unlikely to be indicative of what is happening around the country.

Several other studies have attempted to quantify the disposal of waste to Class 2-5 fills, often on a per capita basis, with widely-varying results. In practical terms, the lack of precise data about disposal of waste to Class 2-5 landfills makes it impossible to reliably monitor any changes over time in the disposal of major waste streams, such as construction and demolition waste.

4.2 Composition of Waste

In September 2022, Waimakariri’s waste was surveyed on behalf by Waste Not Consulting Ltd. The composition data presented here is largely taken from the report presenting the results of the survey, completed in February 2023.

4.2.1 Composition to Class 1 Disposal

The composition of the overall waste stream being disposed of at Kate Valley from Waimakariri district (via Southbrook RTS and Oxford RTS) is shown below.

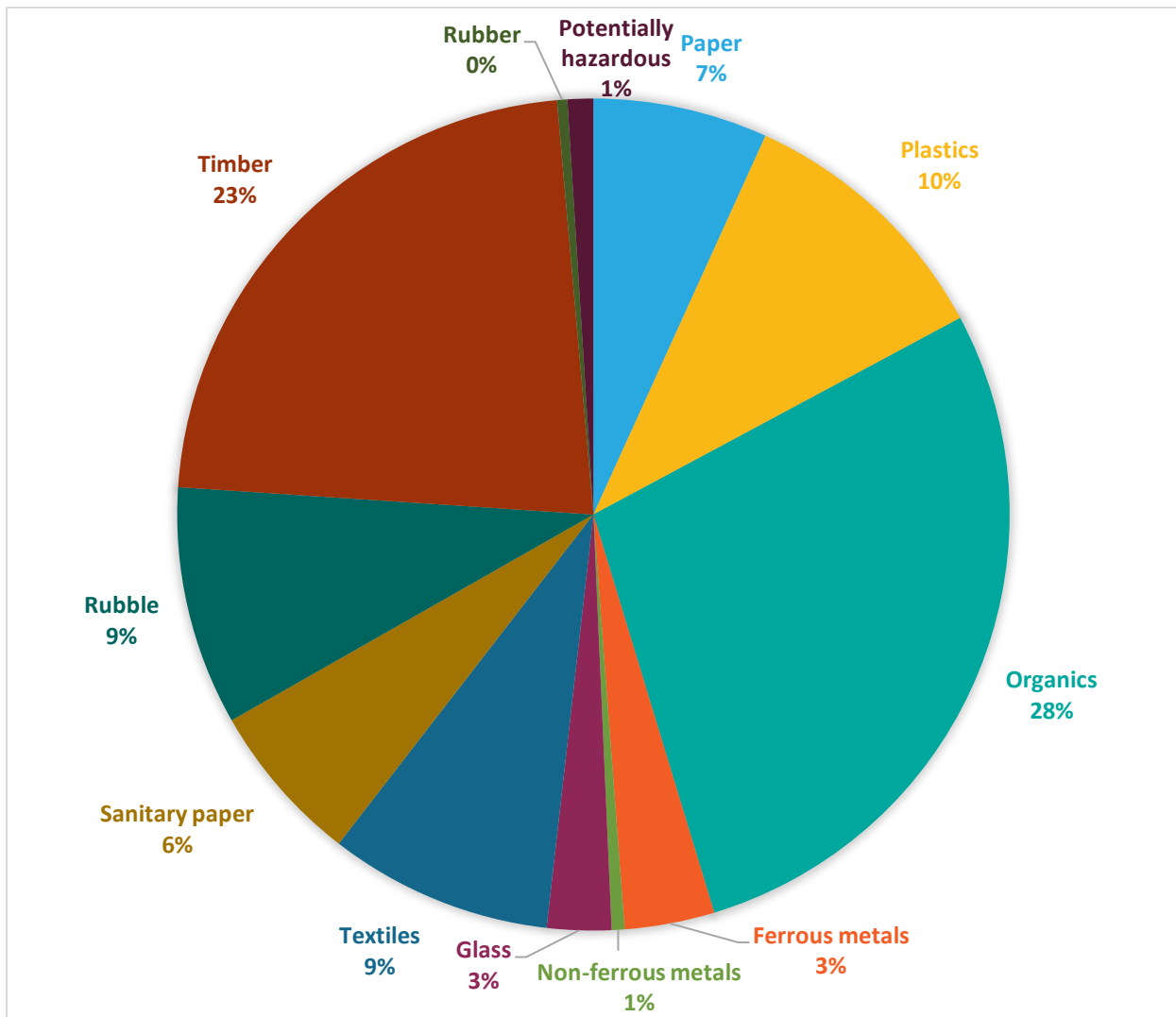
Table 4: Composition of All Waste to Class 1 Landfill

	8 August – 18 September 2022	
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²⁵ Ministry for the Environment (2011) *Consented Non-levied Cleanfills and Landfills in New Zealand: Project Report*. Wellington: Ministry for the Environment

Southbrook and Oxford RTS – all waste to landfill	% of weight (%)	Tonnes/week (tonnes)	Tonnes per annum (indicative only, tonnes)
Paper	6.8	18	917
Plastics	10.4	27	1,404
Organics	28.2	73	3,809
Ferrous metals	3.5	9	479
Non-ferrous metals	0.5	1	65
Glass	2.5	6	331
Textiles	8.7	23	1,173
Sanitary paper	6.3	16	848
Rubble	9.3	24	1,251
Timber	22.6	59	3,051
Rubber	0.4	1	52
Potentially hazardous	1.0	3	131
TOTAL	100.0	259	13,510

The annual composition is an estimate only, as it is extrapolated from weighbridge records for the period 8 August – 18 September 2022.

Figure 5: Composition of All Waste to Class 1 Landfill

4.2.2 Composition of Kerbside Waste

4.2.2.1 Composition of Council-collected kerbside rubbish

The composition of kerbside waste collected in the council collection was also surveyed, and these surveys were split between the different containers i.e. bags, small, and medium wheelie bins.

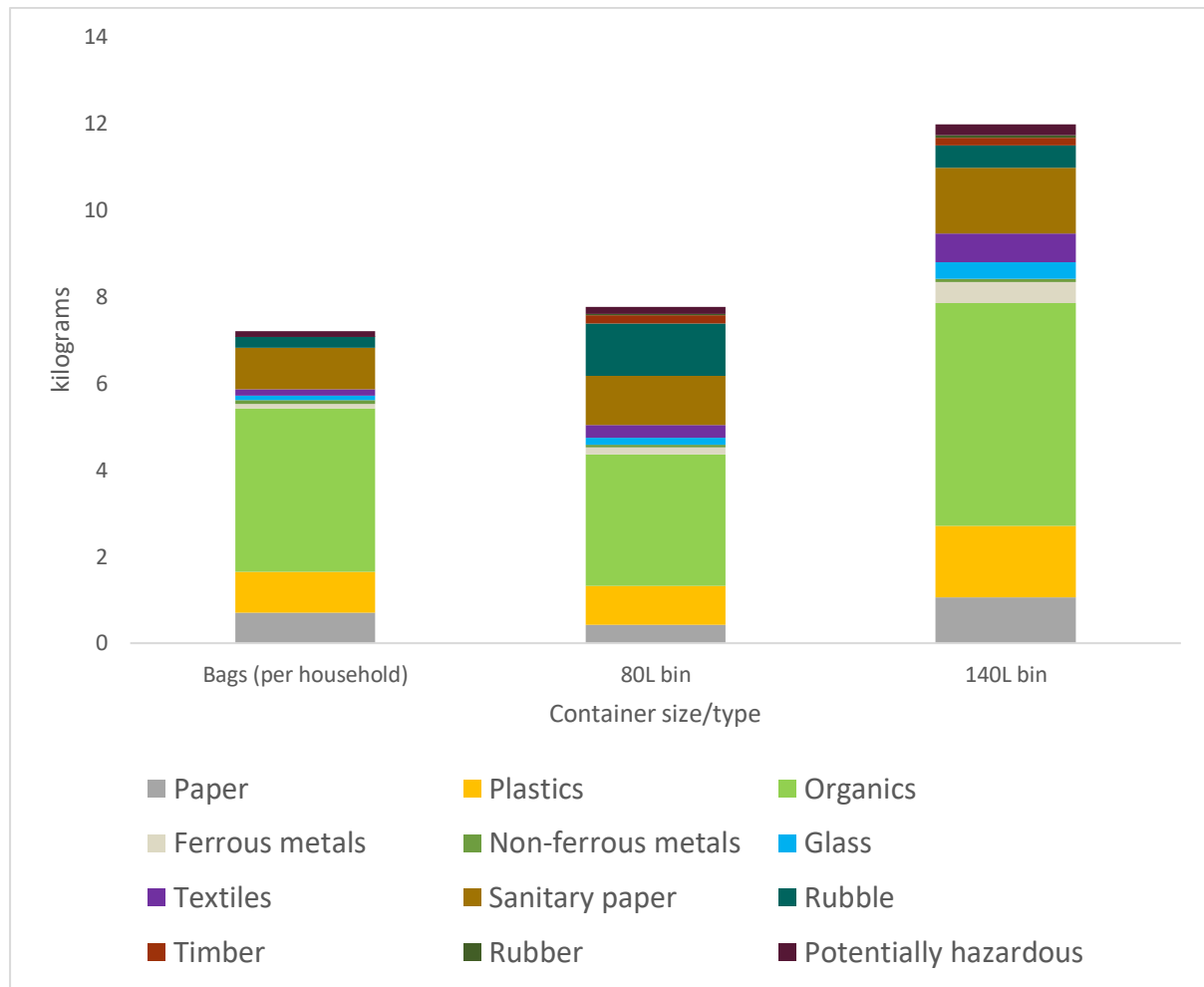
The table below shows the relatively weights of materials in each container (in kg). As many households put out more than one rubbish bag per week, the weights per bag and per household are shown (the average number of bags set out by a household each week is 1.35).

Table 5: Composition of residual waste containers (by weight, kg)

Material type	Bags (per bag)	Bags (per household)	80L bin	140L bin
Paper	0.51	0.70	0.43	1.06

Plastics	0.70	0.95	0.89	1.65
Organics	2.79	3.78	3.04	5.14
Ferrous metals	0.07	0.09	0.16	0.49
Non-ferrous metals	0.07	0.10	0.06	0.08
Glass	0.07	0.10	0.17	0.38
Textiles	0.11	0.15	0.29	0.67
Sanitary paper	0.70	0.95	1.13	1.51
Rubble	0.18	0.25	1.21	0.52
Timber	0.01	0.01	0.19	0.17
Rubber	0.00	0.00	0.04	0.06
Potentially hazardous	0.10	0.13	0.16	0.25
TOTAL	5.32	7.19	7.77	11.97

The figure below shows the weights on a per household basis for each container type/size.

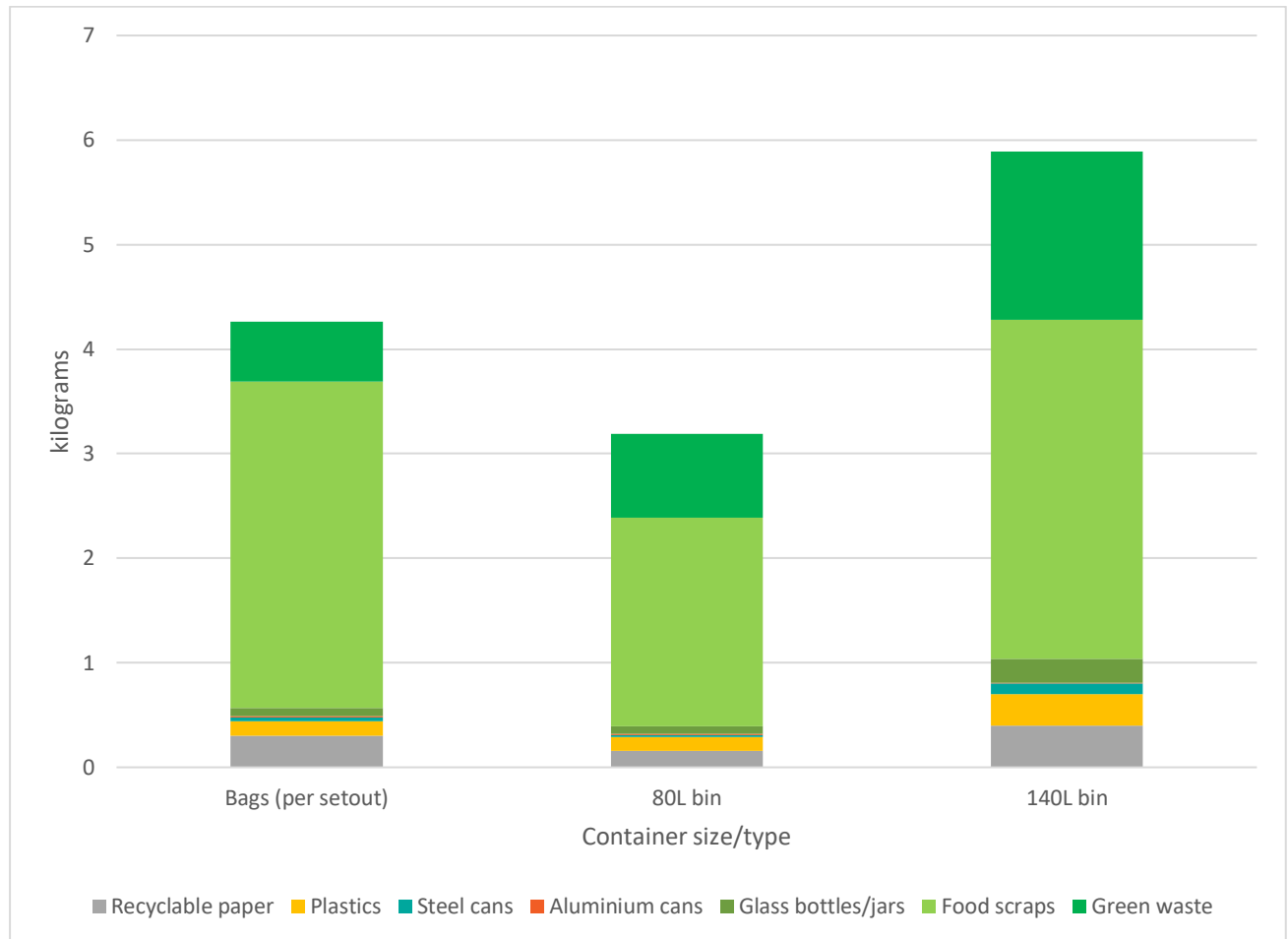
Figure 6: Material weights in kerbside rubbish (per household)

These categories can be broken down further to show potentially divertible material.

Material type	Bags (per setout)	80L bin	140L bin
Recyclable paper	4.1%, 0.30kg	2.0%, 0.16kg	3.3%, 0.40kg
Plastics	1.9%, 0.14kg	1.7%, 0.13kg	2.5%, 0.30kg
Steel cans	0.6%, 0.04	0.3%, 0.02kg	0.8%, 0.10kg
Aluminium cans	0.2%, 0.01kg	0.1%, 0.01kg	0.1%, 0.01kg
Glass bottles/jars	1.1%, 0.08kg	0.9%, 0.07kg	1.9%, 0.23kg
Food scraps	43.4%, 3.12kg	25.7%, 2.00kg	27.1%, 3.24kg
Green waste	8.0%, 0.57kg	10.3%, 0.80kg	13.4%, 1.61kg
Total	59.3%, 4.27kg	40.9%, 3.18kg	49.1%, 5.87kg

The figure below shows the different containers in comparison.

Figure 7: Potentially divertible material weights in kerbside rubbish (per household)



This shows that those using bags or 80L bins are similar in their waste diversion habits, although households using bags tend to throw out more food scraps and households using bins tend to throw out slightly more garden waste. A 140L bin, however, has more of all materials, especially food scraps and garden waste.

4.2.2.2 Composition of all kerbside waste

Council's kerbside rubbish collections accounts for around 80% of all household kerbside waste disposed of to landfill through the Southbrook RTS.

Surveying kerbside waste at the RTS enables comparisons to be made of the council-collected kerbside waste and privately-collected kerbside waste. This is shown below in Table 6.

Insufficient large (privately-collected) wheelie bins were located during the survey to provide reliable figures, and so data from the 2017 audit was used. It is worth noting that the four private collector bins that were weighed in this survey contained 74% greenwaste by weight.

Table 6: Comparison of Composition - Private vs Council Rubbish Collection

Kerbside rubbish disposed of at Southbrook RTS – August, September 2022	Privately-collected kerbside rubbish		Council kerbside rubbish collection	
	Percentage of total (%)	Tonnes per week	Percentage of total (%)	Tonnes per week
Paper	7.1	2	8.3	8
Plastics	8.0	2	13.3	12
Organics	56.9	13	43.1	40
Ferrous metals	1.9	0	3.4	3
Non-ferrous metals	0.7	0	0.7	1
Glass	7.9	2	2.8	3
Textiles	1.5	0	4.9	5
Sanitary paper	4.0	1	13.0	12
Rubble	3.7	1	6.4	6
Timber	6.1	1	1.5	1
Rubber	0.1	0	0.4	0
Potentially hazardous	2.2	0	2.1	2
TOTAL	100.0	23	100.0	94

The most notable variance here is in organics, with private-collected kerbside rubbish containing 56.9% compared to 43.1% in council containers. Private-collected kerbside rubbish also tends to contain less recyclables overall, with the exception of glass which is much higher (7.9% compared to 2.8%).

The table below shows the quantity of potentially divertible material in the overall kerbside-collected waste stream.

Table 7: Diversion Potential of Kerbside Waste

All kerbside-collected rubbish – August/September 2022	Percentage of total (%)	Tonnes per week (T)
Material recyclable through kerbside collections		

Paper	3.1	4
Plastics (#1, #2, and #5 containers)	2.2	3
Steel cans	0.6	1
Aluminium cans	0.1	0
Glass bottles/jars	1.6	2
Subtotal	7.6	9
Compostable materials		
Food scraps	25.6	30
Garden waste	19.6	23
Subtotal	45.2	53
TOTAL	52.8	61

Around half of the material collected through kerbside collections could have been recycled through existing services or composted.

4.3 Kerbside Organics Material Composition

The material collected in the Council kerbside organics collection was also audited at the time. This is one of the first detailed audits of a mixed organics collection (food and garden organics, or FOGO) in New Zealand.

The material was divided into ‘acceptable’ material types (those that are formally accepted in the service) and ‘unacceptable’ materials which may be non-compostable (such as plastic, and non-compostable garden waste) or are unwanted for other reasons (compostable packaging, timber, soil).

The results of the survey are shown below, for each size of organics collection container.

Table 8: Composition of FOGO Collection Containers

Material type – percentage of total (%)	80L wheeled bins	140L wheeled bins	240L wheeled bins
Compostable garden waste	69.1	74.6	79.3
Food scraps	15.7	10.0	7.8
Compostable paper	0.9	0.5	0.9
Subtotal	86.0	85.0	88.0

Non-compostable garden waste	3.9	0.0	2.3
Compostable packaging	0.0	0.0	0.0
Timber	0.0	0.0	0.0
Soil	7.5	10.9	7.0
Plastic	0.3	0.1	0.2
Other	2.7	3.9	2.5
Subtotal	14.4	14.9	12.0
TOTAL	100	100	100

Soil was categorised as 'contamination', and was the most common contaminant in all three sizes of bin.

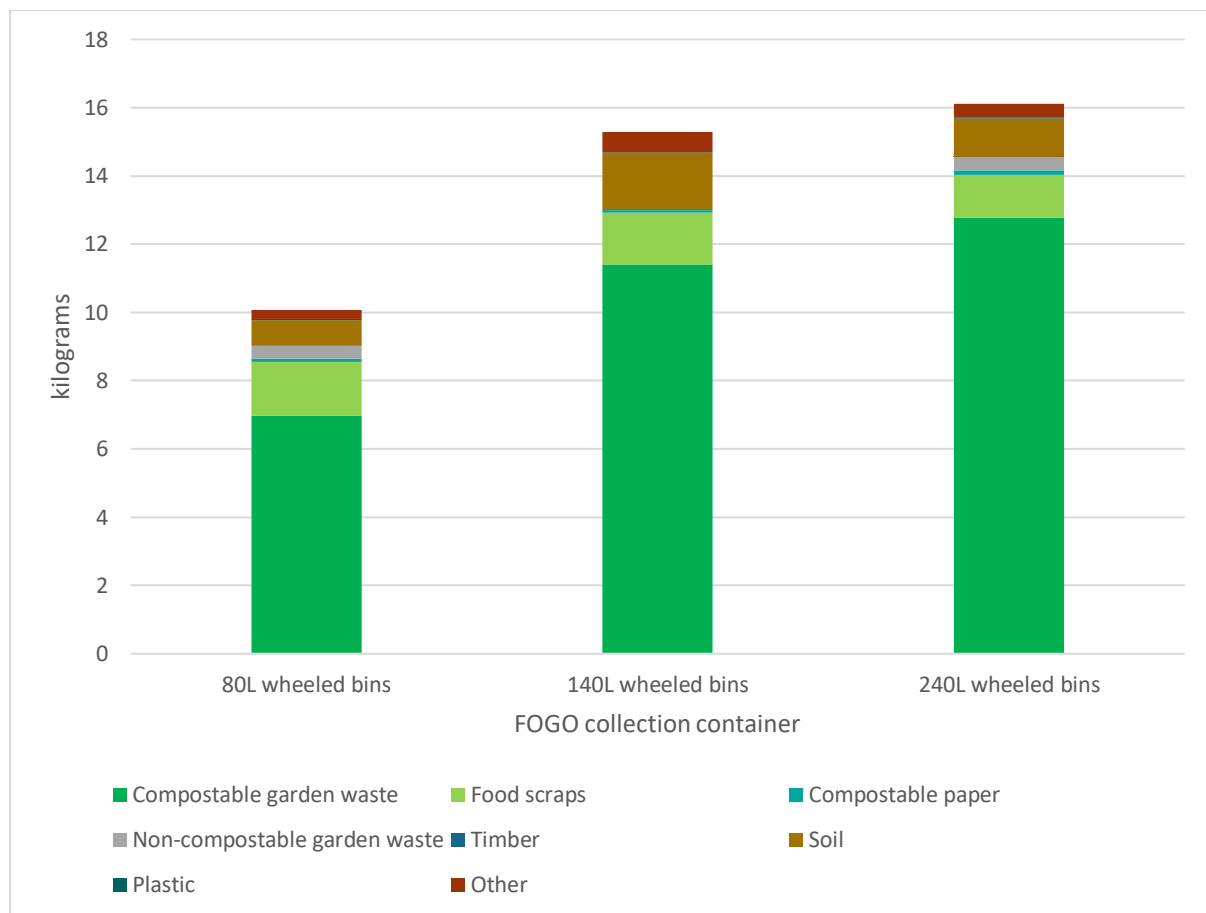
The table below shows the same data, by weight rather than proportion.

Table 9: Composition of FOGO Collection Containers (by weight)

Material type – weight (kg)	80L wheeled bins	140L wheeled bins	240L wheeled bins
Compostable garden waste	6.97	11.40	12.78
Food scraps	1.58	1.52	1.25
Compostable paper	0.09	0.08	0.14
Subtotal	8.64	13.00	14.18
Non-compostable garden waste	0.39	0.00	0.38
Compostable packaging	0.00	0.00	0.0
Timber	0.00	0.00	0.01
Soil	0.75	1.67	1.12
Plastic	0.03	0.01	0.03
Other	0.27	0.60	0.40
Subtotal	1.44	2.28	1.94
TOTAL	10.08	13.00	14.18

The figure below compares the three containers (material types with very small weights are not visible).

Figure 8: Composition of FOGO Collection Containers (by weight)



It is apparent from this figure that soil (categorised as unwanted contamination) is around the same weight as food scraps, a targeted material.

However, contamination overall is reasonably low, at around 13%; compared to contamination rates often experienced in comingled recycling collection containers; and soil makes up the majority of this 'contamination' at 7% to 11%. It is likely that many users of the service consider 'soil' to be a type of garden or organic waste, and therefore this is largely to be an issue for communication and education.

4.4 Overall Diversion Potential

Various materials are diverted from landfill in Waimakariri through recycling, reuse, and recovery. Services available include Council's kerbside recycling collection, recycling drop-off points, and the two RTS.

As well as the various drop-off options, greenwaste and food scraps can also be composted at home, or collected in a private green waste collection service.

Table 10 below shows the proportion of the general waste currently disposed of to landfill that could potentially be diverted using existing systems and available options. The table also shows the tonnes per week of each material that could have been diverted. The data on the individual materials has been taken from the Waste Not Consulting SWAP surveys.

Table 10: Diversion Potential of Waimakariri's Landfill Waste Stream – 2022

Southbrook transfer station - Divertable materials - By activity source - 8 August - 18 September 2022	C&D	ICI	Landscaping & earthworks	Residential	Council kerbside rubbish	Private kerbside rubbish
	Tonnes per week					
Paper - Recyclable	0.0	0.4	0.0	1.5	2.6	0.6
Paper - Cardboard	1.1	2.3	0.0	2.4	0.3	0.1
Plastic - Recyclable	0.0	0.1	0.0	0.2	2.1	0.4
Food waste	0.0	0.7	0.1	5.1	26.4	3.4
Compostable greenwaste	0.1	0.5	2.4	1.8	10.4	10.1
Ferrous metals	0.5	1.1	0.1	3.8	3.2	0.3
Non-ferrous metals	0.1	0.1	0.0	0.3	0.7	0.1
Glass - Recyclable	0.0	0.2	0.0	0.4	1.5	0.4
Textiles - Clothing	0.0	1.3	0.0	1.0	2.3	0.2
Rubble - Cleanfill	1.1	0.1	0.2	0.1	0.0	0.0
New plasterboard	6.2	0.0	0.0	0.0	0.0	0.0
Timber - Reusable	2.0	0.3	0.0	0.1	0.0	0.0
Timber - Untreated/unpainted	2.0	1.7	0.2	1.1	0.0	0.0
TOTAL	13.1	8.8	3.1	17.7	49.7	15.5

4.5 Comparison with Previous Surveys

The data from Waste Not's SWAP audit demonstrates that there has been an impact from the recent service changes.

Table 11: Comparison of Composition Over Time

Comparison of overall waste composition – 2010, 2012, 2017, 2020, and 2022	Waimakariri District 2010	Waimakariri District 2012	Waimakariri District 2017	Waimakariri District 2020	Southbrook transfer station 2022
Paper	8.8%	7.4%	6.5%	9.7%	6.8%
Plastics	9.4%	9.6%	10.6%	11.2%	10.4%
Food waste	19.9%	12.5%	13.7%	14.7%	13.9%
Greenwaste & other organics	21.5%	23.5%	23.5%	15.7%	14.3%
Organics - subtotal	41.4%	36.0%	37.2%	30.4%	28.2%

Ferrous metals	2.1%	2.7%	2.9%	2.6%	3.5%
Non-ferrous metals	0.4%	0.5%	0.5%	0.6%	0.5%
Glass	2.4%	1.2%	2.2%	4.3%	2.5%
Textiles	4.7%	7.6%	6.0%	7.0%	8.7%
Sanitary paper	5.3%	4.0%	5.4%	6.3%	6.3%
Rubble	10.1%	11.8%	9.3%	9.5%	9.3%
Timber	14.5%	18.3%	18.0%	17.3%	22.6%
Rubber	0.1%	0.2%	0.7%	0.4%	0.4%
Potentially hazardous	0.7%	0.6%	0.7%	0.9%	1.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%
Tonnes per annum to landfill	15,770 T/annum	15,121 T/annum	17,201 T/annum	18,827 T/annum	13,510 T/annum

A few things to note:

- 1) The impact of Council's new organics services, and associated changes, can be seen in the reduction of green waste in 2020 and 2022. There has been no measurable decrease in food waste.
- 2) More recyclable material (glass, paper, plastics) were sent to landfill in 2020 due to disposal of contaminated recycling.
- 3) The overall tonnage has decreased in 2022 primarily due to the presence of the private transfer station.

To elaborate on the last point; the opening of the new private RTS in the district appears to have diverted around 44 tonnes per week from Council's Southbrook RTS. The majority of this is made up of compactor and gantry trucks. An assumed 70% recovery rate from the gantry truck waste would result in an overall quantity of around 33 tonnes per week going to Kate Valley landfill from the RRR RTS.

5 Performance Measurement

5.1 Current Performance Measurement

This section provides comparisons of several waste metrics between Waimakariri and other territorial authorities. The data from the other districts has been taken from a variety of research projects undertaken by Waste Not and Eunomia.

5.1.1 Per Capita Waste to Class 1 Landfills

The total quantity of waste disposed of at Class 1 landfills in a given area is related to a number of factors, including:

- the size and levels of affluence of the population
- the extent and nature of waste collection and disposal activities and services
- the extent and nature of resource recovery activities and services
- the level and types of economic activity
- the relationship between the costs of landfill disposal and the value of recovered materials
- the availability and cost of disposal alternatives, such as Class 2-5 fills
- seasonal fluctuations in population (including tourism).

By combining Statistics NZ population estimates and the Class 1 landfill waste data in section 4.1.1, the per capita per annum waste to landfill in 2022/23 from Waimakariri can be calculated as in Table 12 below. The estimate includes special wastes but excludes non-levied cleanfill materials.

Table 12: Waste Disposal per Capita

Calculation of per capita waste to Class 1 landfills	
Population (2022)	67,900
Total waste to Class 1 landfill	17,394
Tonnes/capita/annum of waste to Class 1 landfills 2020	0.256

This figure varies significantly throughout New Zealand. The table below compares the 2022 figure for Waimakariri with other local authorities, and with the result for Waimakariri from Waste Not's previous surveys.

Table 13: Comparative Per Capita Disposal Rates²⁶

Overall waste to Class 1 landfills including special wastes	Kg per capita per annum
<i>Waimakariri District 2022</i>	256
<i>Waimakariri District 2020</i>	291
Gisborne District 2017	296
<i>Waimakariri District 2012</i>	311
<i>Waimakariri District 2017</i>	325
<i>Waimakariri District 2010</i>	336
Ashburton District 2021	384
Invercargill City 2018	528
Palmerston North 2017	545
Kapiti Coast District 2017	546
Dunedin City 2018	554
Tauranga and Western Bay 2020	560
Napier/Hastings 2022	595
New Zealand (2021)	685
Taupō District 2022	716
Hamilton City 2017	718
Queenstown Lakes District 2020	833
Auckland region 2016	1,053

Areas with lower per capita waste generation tend to be rural areas, or urban areas with relatively low levels of manufacturing activity. The areas with the highest per capita waste generation are those with significant primary manufacturing activity and/or with large numbers of tourists.

Waimakariri has a consistently low rate of waste disposal to landfill. The accuracy of these estimates relies greatly on how accurately the non-Council-controlled waste quantities have been estimated.

Table 14: Waste Disposal per Capita

Calculation of per capita waste in kerbside collections	
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²⁶ Estimate provided by Waste Not Consulting based on a number of datasets held

Population (2022)	67,900
Total kerbside waste	7,684
Tonnes/capita/annum of kerbside waste	113

Table 15: Kerbside-Collected Rubbish per capita

District and year of survey	Kg/capita/ annum	Kerbside rubbish services used
Christchurch City 2011	110	Rates-funded fortnightly 140-litre wheelie bins (with weekly organic)
Waimakariri District 2022	113	User-pays rubbish bags + Council wheelie bins + private wheelie bins (with weekly organic)
Waimakariri District 2020	113	User-pays rubbish bags + Council wheelie bins + private wheelie bins (with weekly organic)
Waimakariri District 2016/17	147	User-pays rubbish bags + private wheelie bins
Whangarei District 2017	153	User-pays rubbish bags + private wheelie bins
Auckland Council 2016	156	User-pays rubbish bags + rates-funded wheelie bin + private wheelie bins
Taupo District 2022	183	User-pays rubbish bags + private wheelie bins
Tauranga/WBOP 2019	192	User-pays rubbish bags + private wheelie bins
Hastings District/Napier City 2022	197	Rates-funded 120-litre wheelie bins + private wheelie bins
Hamilton City 2017	197	Rates-funded bags (2 per h/h max)
Palmerston North 2022	215	User-pays rubbish bags + private wheelie bins

The per capita disposal rate of kerbside rubbish from Waimakariri District in 2022 is the same as that estimated in the 2020 survey. The disposal rate decreased 23% between 2016/17 and 2022. This decrease in the disposal rate is associated with Council offering a user-pays organic collection and a Council rubbish wheelie bin service. The three lowest disposal rates shown are from areas where a kerbside organics collection is available.

5.1.2 Performance of Food Waste Capture

With the composition of the organic material collected in the FOGO bins known, it is possible to calculate how well the service is performing in diverting food scraps from rubbish bins.

Key figures used include:

- 1) Food scraps in kerbside organics collection – 10 tonnes per week
- 2) Food scraps in kerbside waste through Southbrook and RRR RTS – 34 tonnes per week
- 3) Total food scraps in kerbside collections – 44 tonnes per week
- 4) Food scraps capture as a percentage of total food scraps – 22.4%

Another useful benchmark is to compare the amount of food waste collected in Council's FOGO collections with other councils, which mostly have a food waste-only collection.

There are two key figures to consider; firstly the amount of food waste in each FOGO container (1.25kg to 1.58kg; an average of 9.9 tonnes per week), and the amount collected **per household served**. In Waimakariri, this latter figure is essentially the number of subscribers to the service; in 2022, 12,203.

Table 16: Food Scraps Collected Per Household Served Per Week

Council	Food scraps collected (per week per household served)
Waimakariri District Council	0.82
Council A (urban/suburban mix)	0.67
Council B (urban)	0.71
Council C (urban)	1.19

The three comparison councils have a range of other services in place, shown below (all have a weekly food scraps-only collection from 23L kerbside bins):

Council	Rubbish	Recycling	Greenwaste
Council A	Weekly user-pays collection from a 140L wheeled bin using pre-paid tags	Fortnightly collection of comingled recyclables from a 240L wheeled bin, and glass from a crate	No council service
Council B	Fortnightly rates-funded collection from a 140L wheeled bin (other sizes possible)	As above	User-pays fortnightly or 4-weekly collection from a 240L wheeled bin

Council C	Fortnightly rates-funded collection from a 120L wheeled bin	As above	No council service
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It is also useful to understand what impact the FOGO collection has had on the composition of residual waste – i.e. how much of the captured food scraps was previously being sent to landfill through the kerbside rubbish collection.

In the 2017 audit, the quantity of food scraps collected in kerbside rubbish going to landfill was around 38 tonnes per week. The 2022 audit estimated that this has reduced to 34 tonnes per week, over a period when the population of the district grew by 17% - so the 38 tonnes in 2017 might have been expected to increase proportionally to around 44.5 tonnes per week. The balance between these two is roughly 10 tonnes, which is the quantity of food scraps currently collected in the FOGO collection. Therefore, it is reasonable to assume that all of the food scraps now collected through the FOGO service was previously going to landfill.

5.1.3 Performance of Garden Waste Capture

With the composition of the organic material collected in the FOGO bins known, it is also possible to calculate how well the service is performing in diverting garden waste from rubbish bins.

Key figures used include:

- 1) Garden waste in kerbside organics collection – 70 tonnes per week
- 2) Garden waste in kerbside waste through Southbrook and RRR RTS – 35 tonnes per week
- 3) Total garden waste in kerbside collections – 106 tonnes per week
- 4) Garden waste capture as a percentage of total garden waste – 66.4%

It is also possible to complete a similar analysis for the impact of the FOGO service, as done for food scraps above. In the case of garden waste, there has been a reduction in garden waste collected in kerbside rubbish collections from 52 tonnes (60 tonnes adjusted for population) to 35 tonnes per week in 2022.

However, there has also been a significant **increase** in the overall quantity of garden waste in the kerbside-collected stream – 52 tonnes per week in 2017 (adjusted for population growth to 2022, 60 tonnes) compared to 106 tonnes in 2022; an increase of between 54 to 46 tonnes.

Some of this material may have been previously diverted through the Southbrook RTS; the remainder will have been managed in other ways such as home composting. The quantities of greenwaste collected at Southbrook RTS have decreased, as shown below:

Table 17: Tonnes of greenwaste diverted at Southbrook RRP

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Tonnes to SRRP	1,241	1,574	1,737	2,224	1,417	1,541	1,580

Tonnes change		333	163	487	-807	124	39
% change		27%	10%	28%	-36%	9%	3%

A significant decrease was noted in the 2019/20 financial year; the same year the FOGO service was introduced. This suggests that a large proportion of the greenwaste now collected at the kerbside has been diverted from the Southbrook RRP; along with a reduction of around 25 tonnes per week that was previously going to landfill through kerbside rubbish collections.

5.2 Compliance with MfE Requirements

MfE have introduced a number of requirements that TAs will be required to comply with or meet. These include kerbside standardisation requirements, with a specified range of materials able to be collected in kerbside recycling and organics collections, and diversion targets for kerbside collections.

Waimakariri is already largely compliant with the requirements of kerbside standardisation, with the exception of needing to remove aerosol cans from kerbside recycling, and paper/cardboard items (such as pizza boxes) from the FOGO collection.

MfE's diversion targets are 30% by 1 July 2026, 40% by 1 July 2028, and 50% by 1 July 2030. Waimakariri's current diversion rate (calculated on council data alone) is currently almost at the 1 July 2030 target of 50%.

Table 18: Kerbside Collection Diversion, 2021/22 Financial Year, Council Only

Waste stream	Quantity (2021/22 financial year, tonnes)	Percentage of total
Kerbside rubbish	4,648.1	50.8%
Kerbside recycling	3,841.3	42.0%
Kerbside food scraps (10.1% on average of total FOGO collection)	666.9	7.2%
TOTAL	9,156.2	100.0%

However, MfE's diversion calculations will include privately-collected kerbside rubbish also. While it is not known how much (if any) kerbside waste is diverted through private collections, the quantity of privately-collected kerbside waste is known. Including this quantity changes the kerbside diversion performance as shown below, meaning that the district is reaching the 1 July 2028 target of 40%, but is further off the 1 July 2030 target of 50%.

Table 19: Kerbside Collection Diversion, 2021/22 Financial Year, Including Private Kerbside Waste

Waste stream	Quantity (2021/22 financial year, tonnes)	Percentage of total
Kerbside rubbish	5,844.1	56.4%
Kerbside recycling	3,841.3	37.1%
Kerbside food scraps (10.1% on average of total FOGO collection)	666.9	6.4%
TOTAL	10,352.2	100.0%

These calculations may not be accurate as the privately-collected kerbside waste may include some non-household waste; and it is not known if any privately-collected kerbside waste is diverted. However, it is clear that, to meet the 2030 target of 50% diversion, the district needs to either make better use of the kerbside recycling and FOGO service (which is absolutely possible, given the quantities of divertible materials still in the rubbish stream) and/or regulate the private market to ensure that more diversion occurs through these services.

6 Review of the 2018 Waste Management and Minimisation Plan

As required by the WMA, Council has carried out a review of their last WMMP, which was adopted in July 2018. This followed a Waste Assessment which was adopted as complete in October 2017, meaning this review and Waste Assessment needs to be adopted as complete by October 2023.

This WMMP had a vision for the future “to value resources and eliminate waste and its harm to the environment”. This vision was supported by two goals, which directly reflected those in the New Zealand Waste Strategy 2002, with further detail in objectives and policies.

Goal	Objectives
G1: Improving the efficiency of resource use	O1: Our community has opportunities for avoiding or reducing waste at source. O2: The Council works with other councils, central government, industry and other parties to improve product stewardship (i.e. aiming to reduce the environmental impact of the life cycle of products) O3: Our community has opportunity to maximise the diversion of material for reuse, recycling or recovery O4: The range of diverted material will be improved and the quality of these materials enhanced
G2: Reducing the Harmful Effects of Waste	O5: Our community has access to services for efficient and effective management of waste that comply with current environmental and health practices O6: The disposal of sewage treatment residuals complies with current environmental and health practices O7: Our community is informed and educated regarding issues regarding hazardous waste and residual waste

The 2018 WMMP targets reflected the adoption of the ‘advanced option’ for improved services and waste minimisation, and were to:

1. reduce annual per capita waste to landfill from 294 kg per capita in 2015/16 to 236kg per capita over a ten year period; and
2. increase the annual per capita quantity of materials diverted from 170kg per capita in 2015/16 to 228 kg per capita over a ten year period.

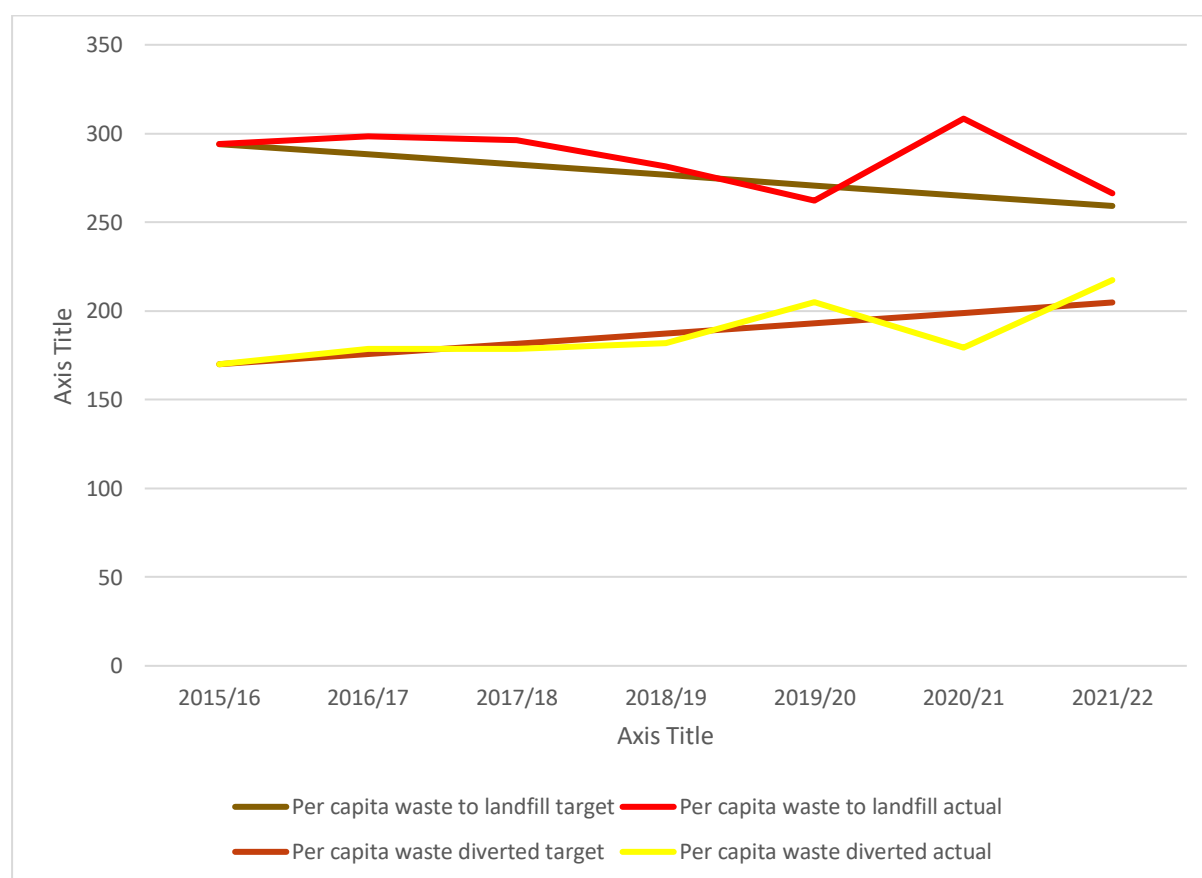
The targets are simple, easy for the public to understand, and reflect both disposal and diversion. Ongoing monitoring and reporting is undertaken to track progress against the targets.

Table 20: 2018 WMMP Targets and Baseline

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
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Per capita waste to landfill	Target	294kg (baseline)	288.2kg	282.4kg	276.6kg	270.8kg	265.0kg	259.2kg
	Actual		298.6kg	296.4kg	281.4kg	262.2kg	308.4kg	266.3kg
Per capita waste diverted	Target	170kg (baseline)	175.8kg	181.6kg	187.4kg	193.2kg	199kg	204.8kg
	Actual		178.5kg	178.6kg	181.7kg	205.1kg	179.4kg	217.4kg

Figure 9: Progress Towards 2018 WMMP Targets



The figure above shows that, up until 2020/21 financial year, good progress was being made towards meeting or even exceeding the targets. However, performance was then affected by significant disruptions to services as a result of COVID-19 pandemic management (such as cancelled collections, and short-term issues with unusually high levels of contamination in recycling and organics collections). The 2021/22 year has shown an impressive rebound in performance to meet or exceed the targets again.

The nature of waste services and infrastructure means that progress towards a target is rarely linear; instead, improvements tend to be visible as leaps in performance with a period of stagnation until the next improvement is implemented.

The issues identified for waste management and minimisation in the district were:

- a high volume of domestic divertible material is going to landfill;

- the need to meet the differing needs of rural and urban households and businesses;
- lack of capacity at Southbrook Resource Recovery Park;
- inappropriate farm waste/rural disposal practices resulting in damage to the environment;
- a high volume and increasing proportion of construction and demolition waste going to landfill; and
- the inappropriate disposal of e-waste and hazardous waste.

More detail on the issues and a high-level assessment of all options to address the issues was included in the Waste Assessment.

In particular, Council considered a range of options for amending the kerbside collection services offered, to address the issues in all or part. Two preferred options were identified ('enhanced' or 'advanced'), and public consultation was carried out. Of the two preferred options, the 'advanced' option was taken forward to the WMMP action plan.

The table below comments on the vision, goals, objectives, and target.

2018 Plan	Commentary
Vision	The previous vision reflected some zero waste principles and te ao Māori, in treating 'waste' as a valuable resource, and was very reflective of the New Zealand Waste Strategy at the time. Recent years have seen a global focus on the concept of a 'circular economy' which incorporates many zero waste principles, and raises the importance of 'circularity' in waste systems. There is also a growing awareness of the environmental impacts (especially GHG emissions) of waste management practices. The recently released Te rautaki para Waste Strategy has a circular economy-based vision, and WMMPs are required to reflect this. For these reasons, it is proposed that a new vision be developed for the next WMMP.
Goals	The goals are heavily reflective of the previous New Zealand Waste Strategy, and these should be revised to reflect Te rautaki para.
Objectives	Similarly, the objectives need reviewing alongside the goals particularly in the context of Te rautaki para. Additional objectives could be included to reflect the wider circular economy approach, focus on emissions and more aligned with the direction of Te rautaki para.
Target	The targets are considered appropriate and fit for purpose.

6.1 Actions

The table below shows the key actions from the previous WMMP, and a brief comment on the extent to which each has been achieved.

Table 21: Review of the Previous WMMP Action Plan (actions with contribution towards targets)

Action	Existing or new action, timeframes	Progress
Community has opportunities for avoiding or reducing waste at source		
Circulate educational information to promote Council's waste management and minimisation services	Existing, ongoing	The kerbside recycling information brochure was updated in mid-2020 and delivered to all residents within collection areas. Ongoing media adverts were used to inform residents of correct use of recycling and organics bins. Recycling bin audits were carried out in 2020 and 2021, with educational material placed in residents' letterboxes as necessary, resulting in contamination levels reverting to around 5%. Recycling bin audits are ongoing.
Provide educational programmes and support other programmes aimed at waste management and minimisation and sustainability e.g. boomerang bags and 'no plastic straw' campaign	Existing, ongoing	School and community education services are continuing via Eco Educate (EE) and Enviroschools Canterbury. Sustainable Living Education Programme resources are available to residents, and the educator has the ability to facilitate the programme. This year, Council has supported extending waste education at some events, with EE staffing wastes station to divert event waste.
Establish an educational facility for promotion of waste management and minimisation at the Southbrook RRP as part of the planned upgrade of the Southbrook RRP	New, by 2022/23	The education centre is a key component of the site upgrades, which have been delayed. Council is providing access to a bookable facility for use as temporary classroom by the education provider.
Support organisations leading litter clean-up and campaigns at raising awareness of waste minimisation, potentially by means of grants	Existing, ongoing	Funding has been increased in response to larger number of groups carrying out clean-ups, particularly along rivers and in estuaries after flood events.

Collaborate with other councils, to promote waste management and minimisation and waste acceptance criteria in a regionally and nationally consistent way	Existing, ongoing	Council works with other Canterbury Councils via the Canterbury Waste Joint Committee; participates in national Council waste staff meetings and webinars; provides funds for LFHW and the TAO Collaborative Fund which are coordinated by WasteMINZ.
Promote and support existing waste minimisation and resource efficiency initiatives targeting local industry	Existing, ongoing	Information provided on Council website
Council works with other councils, central government, industry and other parties to improve product stewardship		
Advocate to government, possibly via a coordinated approach with other organisations, such as Canterbury Waste Joint Committee, Local Government New Zealand and WasteMINZ	Existing, ongoing	Council participates actively in government consultations, submitting individually, and provides input into WasteMINZ, LGNZ, CWJC and Canterbury Mayoral Forum submissions
Promote and support product stewardship programmes operating in-district	Existing, ongoing	Information provided on Council website
Our community has opportunities to maximise the diversion of material for reuse, recycling or recovery		
Refine and publish Council's policy regarding the extent of kerbside collection service, both the urban/rural boundaries and the residential/commercial extent of services.	New, 2018/19	Bylaw updated in 2019 to reflect new services and collection area expansions
Improve RRP and Transfer Station facilities (Oxford TS and Southbrook RRP) to expand associated services for diverted material.	Existing, ongoing	Taking advantage of new opportunities as well as we can within current site constraints: new battery recycling drop-offs; recycle mobile phones and toner cartridges through product stewardship schemes; implemented PVC pipe recycling and trialling plasterboard diversion.

Upgrade Southbrook RRP and Oxford TS facilities to increase capacity when required.	New, 2018 – 2022	Consultant engaged to assist with concept plans for Southbrook RRP expansion and upgrades; initial high-level advice being sought in relation to Oxford TS levels of service and potential diversion activities.
Optimise the separation of diverted material at the RRP and TS facilities through procurement processes and contractual agreements	New, 2018/19 and ongoing	Council is working with our contractor to undertake more diversion activities; they currently divert larger items from pit and encourage customers to separate loads to reduce landfill.
Use financial incentives to encourage the separation of reusable and recyclable materials from the waste stream.	Existing, ongoing	Continuing to provide free disposal for re-sellable second hand goods and most recyclables; lower charges for green waste, hardfill/rubble.
Investigate the feasibility of providing recycling bins alongside litter bins in the district, and implement where appropriate.	Existing, ongoing	Not progressed: barrier to this is levels of contamination from dirty materials and non-recyclables being placed in recycling bins.
Maintain existing drop-off points for diverted material in beach townships and investigate the feasibility of establishing recycling drop-off points at suitable locations for rural resident use, including trialling new locations.	Existing, ongoing	Recycling drop-offs provided in beach settlements (fixed bins plus larger recycling skips over summer periods); Council supporting availability of recycling at some campgrounds (provision of signage, etc.); Cust is still the only rural recycling facility.
The range of diverted material will be improved and the quality of these materials enhanced		
Continue monitoring the composition of waste going to landfill through SWAP studies and investigate further waste minimisation measures when warranted.	Existing, ongoing	3-yearly SWAP audits undertaken – COVID disrupted the planned 2019/20 audits, and only a visual audit was undertaken at Southbrook RRP, with consultants unable to carry out kerbside bag/bin audits as planned. The full suite of SWAP audits was undertaken in September 2022.
Our community has access to services for effective and efficient management of waste that complies with current environmental and health practices		

Continue to provide litter collection bins at certain locations throughout the district	Existing, ongoing	Provided
Ensure that littering and illegal dumping in public places is managed effectively	Existing, ongoing	Managed by various Council departments (Greenspaces, Drainage, Roding, Environmental Services) depending on where illegal dumping has occurred.
Maintain existing RRP and Transfer Station facilities (Oxford TS and Southbrook RRP) and associated services for waste disposal, including domestic hazardous waste disposal.	Existing, ongoing	COVID disrupted services in 2019/20 with essential waste-only accepted for lock-down periods; otherwise all services available with minor disruptions owing to a few unplanned closures relating to strong winds (partial closures only), fires at the site, asbestos disposed of in scrap metal and pit areas, etc. These closures have been reported quarterly and annually as they are non-financial KPIs.
Ensure all resource consent requirements for Council owned solid waste services, facilities and closed landfills are complied with	Existing, ongoing	Continuing to work toward full compliance
The disposal of sewage treatment residuals complies with current environmental and health practices		
Disposal of screenings from the Council's wastewater treatment plant (WWTP) at Kate Valley landfill and dewatered sewage sludge at Christchurch City Council's Bromley WWTP, or alternative facility or site if feasible.	Existing, ongoing	No changes made. Some WWTP sludge bagged on-site (in biobags) to dewater
Our community is informed and educated about hazardous waste and residual waste		
Carry out educational campaigns to raise awareness about littering, including larger scale illegal dumping, when warranted.	Existing, ongoing	Generate articles and stories via Council website, social media and to newspapers in relation to clean-ups, generally in association with KNZB Clean-up week

Not only has Council completed the majority of the planned actions, in some cases the outcome of the planned action has subsequently been implemented. An example is the implementation of council-contracted kerbside collection services.

Significant progress has been made on other actions, such as public education and engagement, and these will continue to be a core part of solid waste activities for Council.

For these reasons, and due to the changes already implemented and due to be implemented in national policy, regulations and work programmes; it is recommended that Council adopt a new WMMP that reflects these changes, with an appropriate vision and supporting goals and objectives.

7 Future Demand and Gap Analysis

7.1 Future Demand

There are a wide range of factors that are likely to affect future demand for waste minimisation and management. The extent to which these influence demand could vary over time and in different localities. This means that predicting future demand has inherent uncertainties. Key factors are likely to include the following:

- Overall population growth
- Economic activity
- Changes in lifestyle and consumption
- Changes in waste management approaches

In general, the factors that have the greatest influence on potential demand for waste and resource recovery services are population and household growth, construction and demolition activity, economic growth, and changes in the collection service or recovery of materials.

7.1.1 Population

Population projections are shown in the following table:

Table 22: Population Projections to 2048²⁷

Projection	2018	2023	2028	2033	2038	2043	2048	Change 2021 – 2048: number	Change 2018 – 2048: average annual percent
Low		65,000	67,200	68,800	70,000	70,700	70,900	5,900	0.3%
Medium	61,300	66,800	70,800	74,400	77,600	80,500	83,000	16,200	0.8%
High		68,600	74,500	80,200	85,500	90,700	95,500	26,900	1.3%

The district's estimated population in 2020 was 64,700, and for planning purposes Council uses a population forecast that sits somewhere between the StatsNZ medium and high projections. Building consent numbers continue to be high, and so a population growth forecast on the higher side is considered appropriate. Priority areas for planned growth are Rangiora, Woodend/Pegasus, and Kaiapoi; but significant growth is also expected around Oxford and in rural areas. Commercial growth is largely centred around Southbrook,

²⁷ StatsNZ population forecasts

although Ravenswood in Woodend has land zoned for commercial development and this is being developed in parallel with the residential areas.

The demographics of the district are expected to change as the impacts of an ageing population and the impacts of immigration are felt. With the elderly more likely to live alone, contributing further to a national trend towards smaller households, the average household size is likely to reduce. This may be balanced, to an extent, by increasing quantities of medical waste associated with aged care. There may also be increasing numbers of elderly living in various forms of supported care. Retirement villages and care homes are more likely to manage waste and recycling through private services rather than make use of council kerbside services; and there are a number of these developments planned or underway in the district.

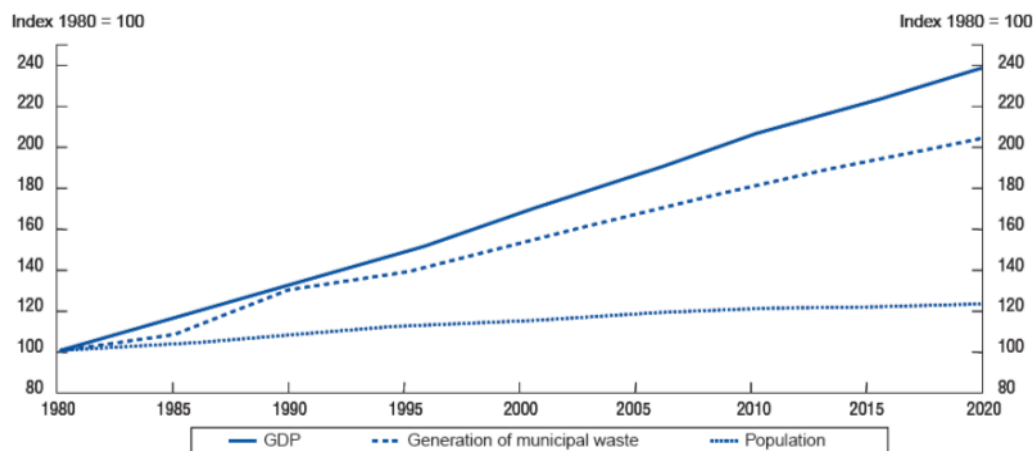
7.1.2 Economic Activity

The Waimakariri district continues to experience strong economic growth; currently the 11th fastest area in the country at 3.7% in the year to March 2023.

GDP has a strong relationship with waste generation, and so this strong growth is likely to result in ongoing increases in consumption and hence waste generation.

For reference, Figure 10 below shows the growth in municipal waste in the OECD plotted against GDP and population.

Figure 10: Municipal Waste Generation, GDP and Population in OECD 1980 - 2020



Source: OECD 2001.

Research from the UK²⁸ and USA²⁹ suggests that underlying the longer-term pattern of household waste growth is an increase in the quantity of materials consumed by the average household and that this in turn is driven by rising levels of household expenditure.

²⁸ Eunomia (2007), *Household Waste Prevention Policy Side Research Programme*, Final Report for Defra, London, England

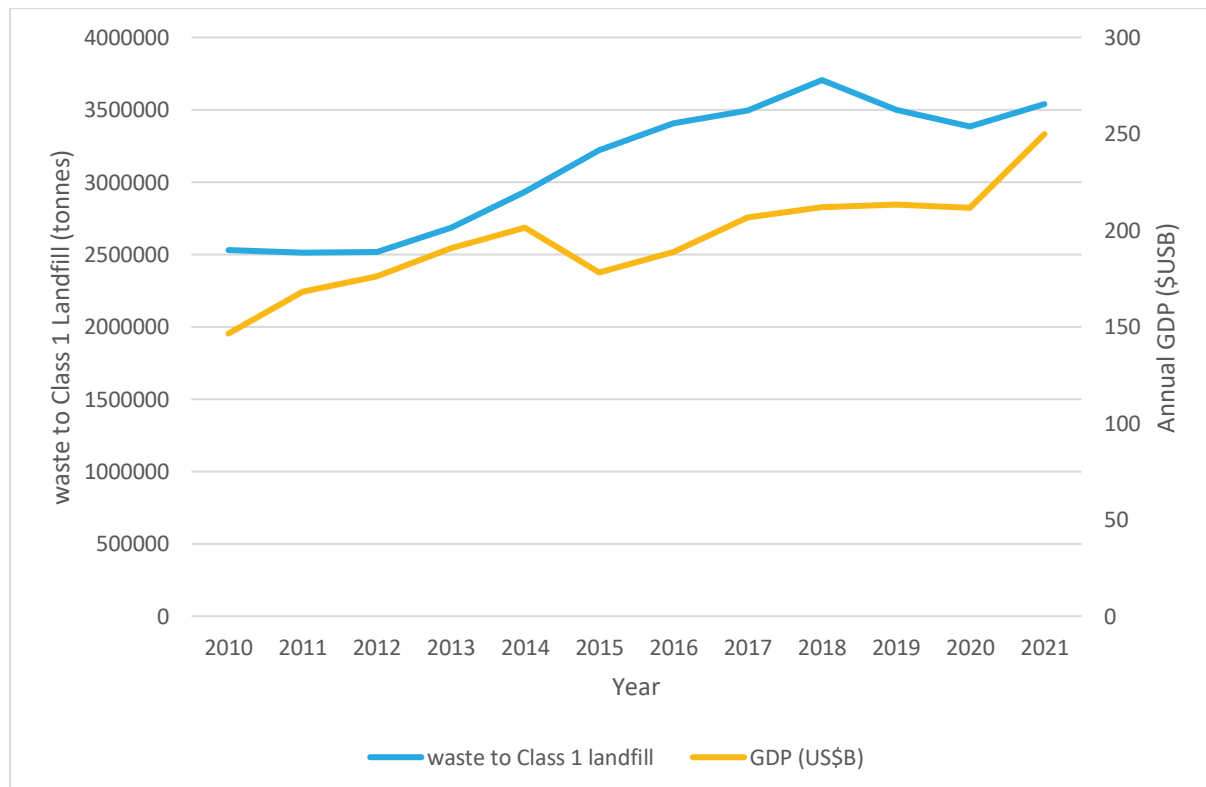
²⁹ EPA, 1999. *National Source Reduction Characterisation Report For Municipal Solid Waste in the United States*

The relationship between population, GDP, and waste seems intuitively sound, as an increased number of people will generate increased quantities of waste and greater economic activity is linked to the production and consumption of goods which, in turn, generates waste.

Total GDP is also a useful measure as it takes account of the effects of population growth as well as changes in economic activity. The chart suggests that municipal solid waste growth tracks above population growth but below GDP. The exact relationship between GDP, population, and waste growth will vary according to local economic, demographic, and social factors.

Figure 11 below shows the annual tonnes sent to Class 1 landfill disposal, against the annual GDP of New Zealand (in billions of US\$). This relationship is not a complete picture, as Class 1 landfills tonnes are a subset of all waste disposed of in New Zealand, and this further does not represent waste produced, but only waste disposed of to Class 1 landfills. This data also can only be shown from 2010, as this was the first time that waste to Class 1 landfill disposal was measured accurately.

Figure 11: Waste to Class 1 Disposal and GDP (2010 - 2021)



As Waimakariri district's population is anticipated to experience steady growth, alongside economic growth, it is likely that the district will experience an approximately similar increase in waste generated assuming no change to waste behaviour or resource recovery rates.

7.1.3 Changes in Lifestyle and Consumption

Consumption habits affect the waste and recyclables generation rates. For example, there has been a national trend related to the decline in newsprint. In New Zealand, the production of newsprint has been in decline since 2005, when it hit a peak of 377,000

tonnes, falling to 276,000 tonnes in 2011.³⁰ Anecdotally, this has been accompanied by an increase in the use of printed direct mail ('junk mail') both in real terms and proportionally. This presents challenges for fibre recycling as this is a less desirable recycling commodity.

The ongoing growth in electronic devices will ensure that e-waste continues to be a growing waste stream, with (for example) data showing that households now tend to access the internet through multiple devices within the home and out, rather than a single home computer³¹.

7.1.4 Changes in Waste Management Approaches

There are a range of drivers that mean methods and priorities for waste management are likely to continue to evolve, with an increasing emphasis on diversion of waste from landfill and recovery of material value. These drivers include:

- Te rautaki para / New Zealand Waste Strategy – with a strong focus on reducing emissions and waste, to achieve a more circular economy
- New Zealand's first Emissions Reduction Plan with a number of actions for the waste sector including reducing the amount of organic going to landfill, including C&D, and a potential ban or limits on organic waste to landfill; along with improving waste data and landfill gas capture
- Infrastructure investment - an increased landfill levy and other funding sources will drive increased investment in waste infrastructure. MfE are currently working a long-term strategic waste infrastructure investment plan.
- Increased cost of landfill - landfill costs have risen in the past due to higher environmental standards under the RMA, introduction of the Waste Disposal Levy (currently \$50 per tonne for Class 1 disposal facilities) and the New Zealand Emissions Trading Scheme. The current price for carbon credits, and the ongoing increases in the landfill levy, will make disposal prices a more significant consideration in waste management practices.
- Kerbside standardisation now requires that a standard list of materials is collected in kerbside recycling (including glass) and that kerbside food scraps collections are introduced, with associated performance standards for TAs based on kerbside diversion; this will increase existing community demand for kerbside services where they don't already exist.
- Waste industry capabilities - as the nature of the waste sector continues to evolve, the waste industry is changing to reflect a greater emphasis on recovery and is developing models and ways of working that will help enable effective waste minimisation in cost-effective ways. COVID-19 pandemic management presents ongoing challenges in resourcing, both staff and vehicles, and logistics.
- Local policy drivers, including actions and targets in the WMMP, bylaws, and licensing.

³⁰ http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10833117

³¹ Data from www.stats.govt.nz 'Household Use of Information and Communication Technology' accessed September 2018

- Recycling and recovered materials markets - recovery of materials from the waste stream for recycling and reuse is heavily dependent on the recovered materials having an economic value. This particularly holds true for recovery of materials by the private sector. Markets for recycled commodities are influenced by prevailing economic conditions, by commodity prices for the equivalent virgin materials, and by market controls in key destinations such as China. The risk is linked to the wider global economy through international markets, and the impact of the China National Sword policies has demonstrated this.

7.1.5 Summary of Demand Factors

The analysis of factors driving demand for waste services in the future suggests that demand will increase over time as a result largely of population growth and economic activity. It is likely that some new waste management approaches will be introduced as a result of the central government work programme, which could create demand in specific areas. Initial indications are that, for Waimakariri, this new demand is likely to be largely related to efforts towards possible business food waste diversion and recovery of construction wastes.

There is also likely to be an increasing focus and demand in other waste activities and types, including:

- disaster waste – recent events have highlighted the need for proactive disaster waste management plans, particularly with respect to local resilience where there is reliance on waste infrastructure located elsewhere in the region, or outside the region;
- smaller but difficult waste streams such as soft plastics, packaging that isn't accepted in kerbside recycling collections, compostable packaging as replacements for what will become banned packaging items, farm wastes, vape waste; and
- the impact of a possible future container return scheme.

7.2 Future Demand – Gap Analysis

The aim of waste planning at a territorial authority level is to achieve effective and efficient waste management and minimisation. The following high level 'gaps' or key issues have been identified. These are discussed in more detail in the sections below.

- significant quantities of organic waste going to landfill, which is predominately food waste from household sources; despite the provision of a subscription FOGO service;
- central government requirements for kerbside services such as standardised materials and performance targets;
- improved management of waste from construction and demolition, particularly diversion of new plasterboard and timber;
- rural waste streams are poorly understood and would probably benefit from more proactive management;
- other materials going to landfill such as cardboard, paper, and textiles from both residential and ICI sources;
- reduced influence over waste resulting from the new private RTS;
- increased requirements to monitor waste flows;
- more intensive management required for Class 3/4 fills to meet reporting requirements and encourage better waste management;

- ensuring waste infrastructure accommodates growth in the district; and
- proactive disaster and medical waste management.

7.2.1 Organic Waste Diversion

Despite the introduction of Council's subscription household FOGO service, the results of the SWAP audits show that residents are not using this service well for food scraps; and there are still significant quantities of food scraps and garden waste going to landfill through kerbside collections and (in the case of food scraps) through residential loads taken directly to the Southbrook RRP.

Changing the service to a rates-funded service may increase participation somewhat, but is unlikely to increase the set-out rate and will not have any effect on the quantity of food scraps each household puts out for collection.

Recent research funded by the MfE has analysed a number of practical service and behaviour change approaches that can improve the capture of food scraps and present a number of options Council could try to improve capture and set-out rates.

7.2.2 Construction and Demolition Waste

While some C&D waste is being diverted through Southbrook RRP, many building sites do not lend themselves easily to on-site separation of materials, which can make diversion of construction wastes difficult. Recovering C&D waste from these sites really requires some kind of sorting facility. There are currently significant quantities of clean plasterboard and reusable or untreated timber going to landfill, which could both be diverted to beneficial use if separated from other construction wastes.

7.2.3 Rural waste management

Nationally, rural wastes are estimated to account for up to 12% of waste disposed of.³² Waste streams from rural areas are not well understood, and current management practices of farm wastes probably include a number of less desirable methods such as on-property burning and burial.

Rural wastes are most commonly managed on-farm with material stockpiled, burned, and/or buried. There are very few controls over waste disposal on farm sites, and much of the material which is currently managed informally could be recycled or recovered, or properly disposed of.

The key issue is that current management methods are essentially no-cost and relatively convenient for farmers. Little to no sorting is required; services that collect non-natural materials for recovery or proper disposal are likely to be costly due to the distances involved and remoteness from processing and consolidation points, and require farmers to sort different materials into a number of different containers for collection.

³²Ministry for the Environment. 2019. *Reducing waste: a more effective landfill levy – consultation document*. Wellington: Ministry for the Environment.

Current product stewardship programmes such as Agrecovery and Plasback apply charges to farmers that participate in the schemes.

There have been a number of trials of farm waste collection services nationally. In addition, there are steps being taken to develop regulated product stewardship schemes for farm plastics and agricultural chemicals and their containers, which will provide a more comprehensive approach with (potentially) no direct charges to the end-user at end of life. There may be an opportunity to leverage these initiatives to support on-farm collection services for non-natural rural wastes that offers a high-quality collection service at below cost.

7.2.4 Recyclables

Despite the household kerbside services provided by Council, and the ability to recycle separated material at the Southbrook RRP, there are still quantities of recyclables going to landfill; especially cardboard and paper.

7.2.5 Textiles

Textiles are a material stream that has historically had a very low profile nationally. The recent focus on carbon reduction through waste management has increased this profile as textiles can contribute significantly to carbon impact assessments. Various national programmes exist to divert specific textile types (such as socks and cotton clothing) but these are capturing very small quantities and are unlikely to have the ability to cope with large quantities.

7.2.6 Private Sector Involvement

Non-household collection services are provided by the private sector, along with a proportion of household collection services. A private RTS also recently opened in the district.

Private sector involvement in the waste industry is not uncommon. However, private operators will, unsurprisingly, make service provision and investment decisions based on commercial realities. These decisions may not be in alignment with Council's preferred waste management approach or infrastructure priorities.

This issue will become increasingly important as performance reporting for household kerbside collections will include data reported by private operators. Although this will be reported directly to MfE, it may not necessarily be accessible by the councils in which areas the services are provided.

7.2.7 Monitoring and Performance Targets

Council will be subject to increasing requirements to report data on the use of facilities and services to MfE. This is a particular issue when it comes to the operation of the two 'cleanfills' in the district, as the current operation of these sites makes it difficult to accurately monitor the types and quantities of wastes. Introducing equipment and methodologies to monitor the facilities more accurately is very likely to result in a higher charge for use of the sites. An alternative is to restrict the use of the sites only to waste sources that can be measured in other ways, such as Council contracts for construction and maintenance.

7.2.8 Waste Infrastructure

As growth continues in the district, there will be a need to expand and increase waste infrastructure accordingly to accommodate this growth.

This is a particular issue for the Southbrook RRP, which is currently being expanded to occupy the full space available at the current site. Oxford transfer station also requires improvements and expansions to accommodate the anticipated growth in this part of the district.

The circular economy focus of Te rautaki para | Waste Strategy gives the impetus and mandate to consider waste infrastructure in a slightly different way, with more of an emphasis on encouraging and providing for circular material flows.

7.2.9 Medical Waste

Medical waste can be an issue at home and in medical facilities. Generally, it is comprised of:

- Hazardous waste (which can be sharps, such as needles, or non-sharps such as infectious waste or radioactive);
- Controlled waste (such as potentially infectious bodily fluids); and
- Non-hazardous waste (which is general waste or recyclables).

At home, non-hazardous waste can generally be managed through usual general refuse and recycling services (although there are some exceptions through either the size of the item, or the sheer quantity). However, the management of hazardous and controlled wastes at home can be difficult, and with the increasing prevalence of in-home medical care, this is becoming a more significant problem.

Anecdotally, a significant proportion of in-home medical waste is disposed of through general waste and recycling systems³³. This could result in significant health and safety concerns for the collection and processing staff.

Ideally, in-home medical care would include provision for appropriate handling and disposal of medical wastes. However, for various reasons such as lack of awareness or cost, this is not always the case.

For healthcare in medical facilities, The Pharmacy Practice Handbook states:³⁴

4.1.16 Disposal of Unused, Returned or Expired Medicines

Members of the public should be encouraged to return unused and expired medicines to their local pharmacy for disposal. Medicines, and devices such as diabetic needles and syringes, should not be disposed of as part of normal household refuse because of the potential for misuse and because municipal waste disposal in landfills is not the disposal method of choice for many pharmaceutical types. Handling and disposal

³³ Of 7,145 patients cared for at home by Capital & Coast DHB staff in 2016, only 200 had a specific medical waste collection service in place. <https://www.stuff.co.nz/dominion-post/news/93705822/needles-sanitary-waste-and-pharmaceuticals-putting-waste-workers-at-risk>

³⁴ <https://nzpharmacy.wordpress.com/2009/06/09/disposal-of-unwanted-medicines/>

should comply with the guidelines in NZ Standard 4304:2002 – Management of Healthcare Waste.

While Council is not responsible for the provision of medical waste management services for either home-based care or medical facilities, it would be beneficial for Council to work proactively with Te Whatu Waitaha - Canterbury and other medical service providers to ensure that appropriate services are being offered and put in place; efforts to do so via the CWJC are ongoing.

7.2.9.1 Disaster Waste

Disaster waste is increasingly becoming an issue, as climate change drives more extreme weather events such as flooding and slips, along with other natural disasters (such as earthquakes). A regional approach to this might strengthen a response to events that are likely to have regional scale impact.

8 Statement of Options and Proposals

This section sets out the range of options available to Council to address the key issues that have been identified in the previous section of this Waste Assessment. Options presented in this section would need to be fully researched and the cost implications understood, before being implemented through Council's WMMP action plans and respective LTP/Annual Plan. Addressing these issues will ensure that Council is meeting their statutory obligations, and improving waste management and minimisation in the Waimakariri district.

8.1 Circular Resource Networks

A core principle incorporated in the options table following is that of the 'circular resource network'. This is a concept first developed in work carried out by Eunomia for the Ministry for Environment in 2021, and is included in the recently released 'National Resource Recovery – Infrastructure and Services Stocktake and Gap Analysis' referenced previously.

This concept is a way of implementing Circular Economy principles, which are a key part of Te rautaki para, in a practical resource recovery network infrastructure approach.

While the Circular Resource Network concept is explained in detail in appendix A.5.0, the key components of the system are explained here.

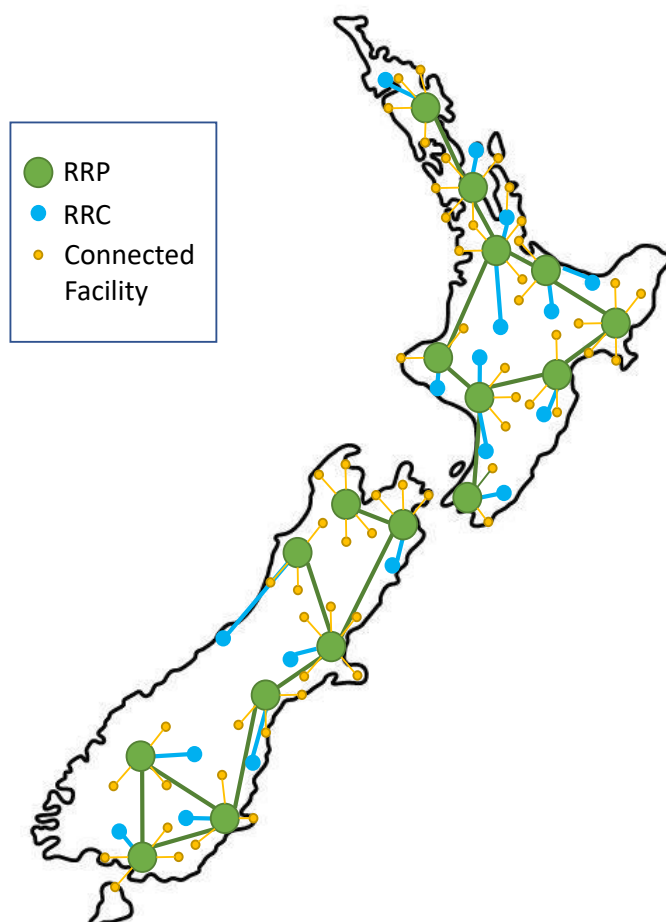
Figure 19: Concept Map of Circular Resource Network below shows a high-level visual representation of a national resource recovery network.

The large green dots represent regional RR Parks that consolidate and process material at a regional level. Depending on the material stream, materials could also be transported between the regional hubs (for example glass being consolidated in Christchurch for shipping to Auckland for manufacture). Regional hubs could also specialise in processing certain materials and swap materials accordingly.

The mid-sized blue dots represent local RR Centres that accept a full range of materials and send to the regional RR Parks for bulking (or to Connected Facilities for local processing). Not shown are smaller drop off sites.

The small yellow dots represent the potentially hundreds of facilities that are not co-located at an RR Park or RR Centre but are linked and operate to the standards of the network. These facilities could accept materials from the RR Park or RR Centres for processing, or supply materials to these sites.

Figure 12: Concept Map of Circular Resource Network



The key roles and components of the system are:

RR Parks – Regional Hubs: The heart of each regional network consists of one or two large RR Parks, where a range of key functions are co-located. The purpose of the RR Park is to provide a ‘hub’ for the efficient regional consolidation of a wide range of materials collected at the RR Centre and Connected Facilities, as well as those that may be collected at the RR Park itself.

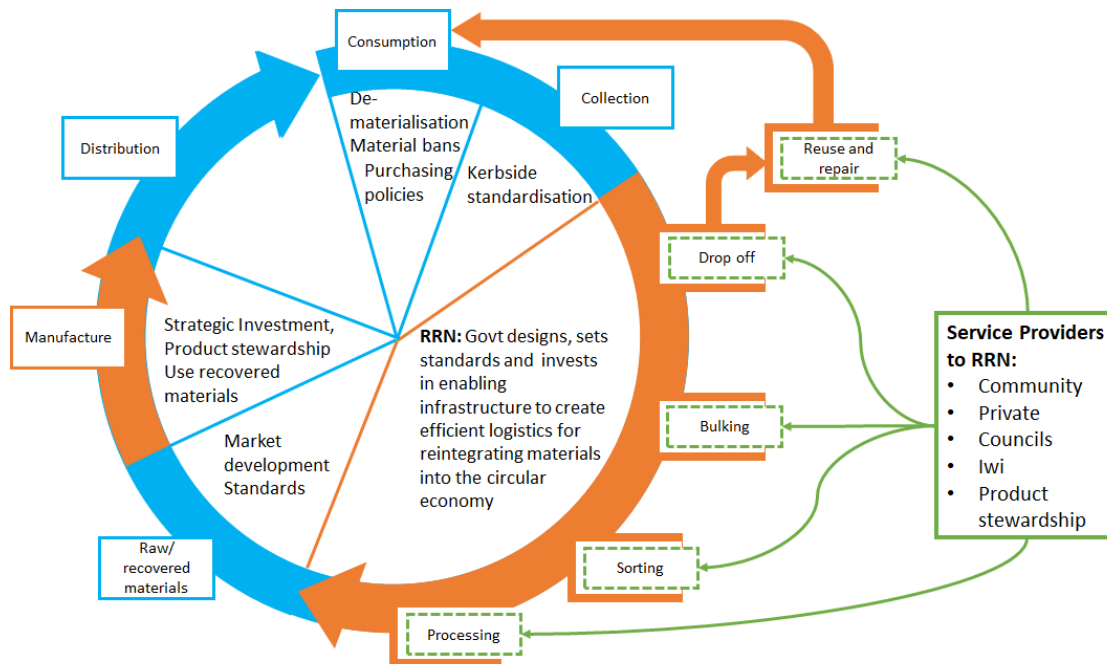
Local RR Centres: While the RR Parks are the hub of the regional networks, the RR Centre form the primary nodes, where the majority of material is dropped off and consolidated locally. Many RR Centres will start off as local transfer station sites that are upgraded and re-purposed to have a predominant focus on resource recovery.

Connected Facilities: While the heart of the circular resource network is the RR Park and RR Centre, a key feature of the circular resource network concept is the connection of potentially all resource recovery operations to the network. A range of resource recovery businesses that are not/do not need to be co-located at a network site are connected virtually. The facilities could be owned or operated by regional or national agencies, TAs, private sector, iwi, or community sector or through partnerships. As noted earlier, these

facilities would operate to the same standards as co-located facilities and could participate in the logistics and virtual network arrangements.

The figure below illustrates how the roles and functions of a national resource recovery network could integrate to provide key reverse logistics functions in the circular economy. The orange elements of the circle are the parts that form the circular resource network.

Figure 13: Roles and Functions of a Circular Recovery Network in the Circular Economy



In the above chart material flows around in a clockwise direction. The arrows represent the material flows. The boxes indicate the key steps within the value chain. The graphic shows how different providers to the can deliver all of the key functions, but within an overall connected framework (that is established and overseen by central/regional/local government).

8.2 Options Categorised by Work Area

These sections present the high-level options to address the key issues described above, broken down into the categories of regulation, measuring/monitoring, education/engagement, collections/services, infrastructure, and leadership/management. Options are presented this way as the role of TAs is likely to be fairly consistent within each of these categories and one option may address a number of key issues; also this enables the options to show a progression of options in one category with (for example) an increasing level of circular economy alignment.

The Council's roles could be:

Strategic: Simply identify the need at a strategic level, with other sectors able to respond to the need as they wish

Facilitation/Leadership: Take a facilitation and leadership role in addressing the need, such as by creating working groups focusing on a particular material e.g. construction waste

Regulator: Use regulatory tools available to councils to create an environment that encourages solutions, such as requiring construction site waste management plans, banning certain materials from landfill, etc.

Funder: Influence the way gaps addressed by others by making funding available for specific initiatives that address the need in some way

Provider: Take direct action by providing services or facilities that address the need.

8.2.1 Regulation

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
R1	Expand the solid waste bylaw provisions to increase regulation of the private waste sector – e.g. use of 240L wheeled bins; event waste management, construction site waste management plans, material bans in kerbside collections	Large quantities of organic waste and some recyclables still going to landfill. Poor understanding of rural waste streams, construction and demolition waste. Increase monitoring and reporting required by central government.	Having access to better data enables better management of waste streams and future identification of issues. Preventing the use of 240L wheeled bins for household rubbish collections will improve waste diversion. Te rautaki para goal 1 priority 1.1	Regulator

8.2.2 Measuring and Monitoring

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
M1	Collect participation and set out rates for all services by locality to identify any areas where this is a particular issue	Organic waste and recyclables going to landfill, despite dedicated kerbside services for these waste streams.	Will enable Council to identify localities where there is low participation in services, or high contamination, and target education and engagement accordingly. Te rautaki para goal 1, priority 1.3	Provider
M2	Introduce proactive monitoring of contamination in recycling bins and a warning system for excess contamination	Organic waste and recyclables going to landfill, despite dedicated kerbside services for these waste streams – potentially as a result of poor understanding of what materials are accepted.	Will enable Council to identify localities where there is high contamination, and target education and engagement accordingly. Te rautaki para goal 1, priority 1.3	Regulator, Provider
M3	Increase monitoring and surveying of rural wastes going to landfill; e.g. quantities and material types	More understanding and proactive management required for rural wastes – both from rural households, and from agricultural properties.	Better understanding across the board of non-household waste management and opportunities to move up the hierarchy. Te rautaki para goal 1, priority 1.5; goal 2, priority 2.4	Regulator, Provider
M4	Identify and introduce appropriate systems to Class 3/4 fills to enable types, quantities, and sources of waste to be monitored	More intensive management required for Class 3/4 fills to meet reporting requirements and encourage better waste management.	Closer monitoring will ensure that users are being charged appropriately; that materials comply with acceptance criteria, and that Council can fulfil central government reporting requirements accurately.	Regulator, Provider

Te rautaki para goal 1, priority 1.5;
goal 2, priority 2.4

8.2.3 Education and Engagement

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
EE1	Identify opportunities for consistent, targeted, direct engagement that can be delivered where there is low participation in recycling and/or organic waste services, and/or high contamination.	Large quantities of household organic waste and some household recyclables still going to landfill.	Need for education/ engagement (i.e. demand) is proactively identified and addressed. Te rautaki para goal 3, priorities 3.1 and 3.2	Provider
EE2	Continue to seek wider engagement with industry, community, and other agencies through regional and national waste action groups (e.g., C&D, health, retail, industry).	Improve the management of specific materials, moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, vapes, etc. Kerbside diversion performance standards and reporting requirements set by central government require changes in management for wastes outside Council's direct control. High proportion of event waste from public events could be diverted by improved waste management and diversion practices Reduced influence over the management of some wastes resulting from the new private RTS. Proactive disaster and medical waste management.	Improved understanding of needs in the region and service gaps, and who is best to address them. Collaborate with the community and industry would improve their engagement, understanding, and awareness of waste issues, and enable closer relationships with other agencies such as Te Whatu Ora. Increased responsibility taken by various sectors for waste management within the community. Better understanding across the board of non-household waste management and opportunities to move up the hierarchy.	Facilitation/Leadership, Funder, Provider. Council could initiate groups and facilitate, possibly with low-level funding for project work. Council could provide options that support these other sectors in moving up the hierarchy. Ideally this would continue to be progressed through the CWJC.

			Te rautaki para goal 1, priority 1.5; goal 2, priority 2.4	
EE3	Work closely with mana whenua, community groups, social enterprise, non-government organisations etc to develop and enable locally-led waste minimisation engagement and education, and support existing initiatives locally such as Sharewaste and Foodprint.	Large quantities of household organic waste and some household recyclables still going to landfill, suggesting lack of understanding of waste issues and what the services are for. High levels of contamination in recycling and FOGO bins. Encourage participation in services such as kerbside recycling and FOGO collections. E&E can be targeted in areas where it is needed and delivered locally. High proportion of event waste from public events could be diverted by improved waste management and diversion practices. Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, medical wastes etc. and reducing environmental harm.	Need for education/ engagement (i.e. demand) is proactively identified and addressed. Collaborate with the community and industry would improve their engagement, understanding, and awareness of waste issues. Increased responsibility taken by various sectors for waste management within the community. Better understanding across the board of non-household waste management and opportunities to move up the hierarchy. Te rautaki para goal 1 priority 1.5; goal 3 priority 3.1 and 3.2	Facilitation/Leadership, Funder, Provider. Council should identify and facilitate collaboration with and between local groups to enable waste minimisation education and engagement.

8.2.4 Collection & Services

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
CS1	Alter kerbside services as necessary to comply with government's kerbside standardisation requirements.	Central government requirements for kerbside services such as standardised materials and performance targets.	Kerbside services would be aligned with central government's kerbside standardisation requirements.	Provider

			Te rautaki para goal 2, priority 2.1; goal 5 priorities 5.2 and 5.3	
CS2	Work with other Canterbury councils to identify and implement any additional improvements to kerbside recycling collections – e.g., a transition to glass-out collections.	Central government requirements for kerbside services such as standardised materials and performance targets.	Kerbside services would be aligned with central government’s kerbside standardisation requirements. Te rautaki para goal 2, priority 2.1; goal 5 priorities 5.2 and 5.3	Provider
CS3	Support/introduce virtual trading marketplaces e.g., freecycle pages, Civilshare.	Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, etc. and reducing environmental harm.	Meets demand for materials, and demand for increased reuse. Te rautaki para goal 1, priority 1.5; goal 2, priority 2.4; goal 3 priority 3.2, goal 4 priority 4.1 and 4.3	Facilitate/leadership, and/or provision
CS4	Work with local providers (private, iwi and community groups) to implement and/or encourage improved commercial service provision – e.g., recyclables, construction waste.	Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, medical wastes etc. and reducing environmental harm. Other materials going to landfill such as cardboard, paper, and textiles from both residential and ICI sources.	Te rautaki para goal 2, priority 2.3, 2.4; goal 4 priority 4.1; goal 5 priority 5.3; goal 6 priority 6.1; goal 7 priority 7.2 (where C&D waste is organic in nature)	Provider or Facilitation – ideally as a regional initiative
CS5	Work with product stewardship providers to encourage better service provision and awareness raising for key materials such as farm waste (containers and wrap), textiles, polystyrene.	Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, medical wastes etc. and reducing environmental harm. Other materials going to landfill such as cardboard, paper, and textiles from both residential and ICI sources.	Te rautaki para goal 2, priority 2.3, 2.4; goal 4 priority 4.1; goal 5 priority 5.3; goal 6 priority 6.1;	Facilitation – ideally as a regional initiative

8.2.5 Infrastructure

Infrastructure options have been categorised into infrastructure that addresses a specific material (such as C&D, or organic waste) and then into progressively increasing levels of alignment with circular economy principles and achieving a Circular Resource Network.

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
<i>Infrastructure for specific materials</i>				
IN1	Processing for ICI and C&D waste and provision for C&D deconstruction; potentially in partnership with private sector.	Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, medical wastes etc. and reducing environmental harm. Other materials going to landfill such as cardboard, paper, and textiles from both residential and ICI sources.	Meet demand for C&D waste diversion. Te rautaki para goal 2, priority 2.3, 2.4; goal 4 priority 4.1; goal 5 priority 5.3; goal 6 priority 6.1; goal 7 priority 7.2 (where C&D waste is organic in nature).	Strategic and/or facilitation/leadership and/or funder and/or provider
IN2	Processing for difficult materials e.g., soft plastics, agricultural containers.	Management of specific materials needs to be improved, especially moving up the hierarchy, by engaging with the sources – C&D waste, non-household recyclables, agricultural wastes, medical wastes etc. and reducing environmental harm. Other materials going to landfill such as cardboard, paper, and textiles from both residential and ICI sources.	Meet demand for regional processing of difficult materials. Te rautaki para goal 2, priority 2.3 and 2.4; goal 4 priority 4.1; goal 5 priority 5.3	Strategic and/or facilitation/leadership and/or funder and/or provider
<i>Circular Resource Network – First steps</i>				
Te rautaki para goal 1 priority 1.5; goal 2 priorities 2.1, 2.3, 2.4; goal 4 priorities 4.1 and 4.3; goal 5 priority 5.3; goal 7 priority 7.2				

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
IN3	Provide for repair sites, community workshops, demonstrations, and courses at key network sites.	Improving diversion for a range of materials.	There will be better access to infrastructure across the district, with consistent provision of the various facilities, materials accepted, and education/engagement undertaken.	Collaborate and/or facilitate/leadership and/or provision. Deliver regionally where possible.
IN4	Standardised signs and branding, material acceptance and quality standards, customer service.	Supports many other initiatives.	Supports actions to meet many key issues.	Facilitate/leadership – direct provision
IN5	Provide space for product stewardship schemes collection points at network sites.	Supports and enables diversion of several difficult materials. Could support focus on higher levels of waste hierarchy (depending on PS system).	Enables better management of many difficult materials.	Facilitate/leadership – direct provision
IN6	Provide for container reuse at network sites (e.g., collection space).	Supports focus on higher levels of waste hierarchy. Supports better management of some difficult materials.	Increases reuse of materials.	Facilitate/leadership – direct provision
<i>Circular Resource Network – Extended</i> Te rautaki para (in addition to above) goal 2 priorities 2.2 (and more strongly supports 2.1, 2.3 and 2.4 than above); goal 4 priorities 4.2 (more strongly supports 4.1 and 4.3 than above); goal 5 priorities 5.2 and 5.4				
IN7	Expand regional hub provision by expanding existing site, or splitting activities across multiple sites – e.g., focusing services for householders at one site, and commercial services at another (potentially in partnership with private sector).	Supports wider RR network, enables better material diversion.	Provides an infrastructure hub for the efficient local consolidation of a wide range of materials such as soft plastics, plastics excluded from kerbside recycling, bulky and reusable items, soft plastics, e-waste.	Facilitate/leadership – direct provision

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
IN8	Provide for product stewardship programmes within network sites for bulking and processing.	Supports and enables diversion of several difficult materials. Could support focus on higher levels of waste hierarchy (depending on product stewardship system).	Provides for better management of many difficult materials.	Facilitate/leadership – direct provision
IN9	Use standard containers and logistics across all network sites.	Supports and enables a number of other options by making capturing and diverting materials more straightforward and effective.	Makes it easier for customers to use sites and increases the efficiency of capturing materials for recovery and transferring them between different parts of the Circular Resource Network.	Facilitate/leadership – direct provision
IN10	Provide for container reuse at network sites (e.g., washing facilities).	Supports focus on higher levels of waste hierarchy. Supports better management of some difficult materials.	Increases reuse of materials.	Facilitate/leadership – direct provision
<i>Circular Resource Network – Full</i>				
Te rautaki para – all of above, to a greater extent				
IN11	Centralised coordination of network.	Maximises efficiencies and consistency, supporting better management of a wide range of materials.	TAs actively work towards having a comprehensive network of facilities supporting the collection and circular management of products and materials that supports a national network .	Facilitate/leadership – direct provision
IN12	Collaboration on inter-regional logistics.	Maximises efficiencies and consistency, supporting better management of a wide range of materials.	Provides for better management of many materials.	Facilitate/leadership – direct provision

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
IN13	Identify off-site re-processors and manufacturers and ensure that these parties are fully integrated and considered in the network design.	Maximises efficiencies and consistency, supporting better management of a wide range of materials.	Maximise the material types and quantities that can be diverted by ensuring that re-processors and manufacturers are fully considered in network design.	Facilitate/leadership – direct provision
IN14	Extend the Circular Resource Network to include industrial symbiosis parks.	Maximises efficiencies and consistency, supporting better management of a wide range of materials.	Provides for better management of more materials by facilitating the co-location and development of more waste management options, particularly those further up the waste hierarchy.	Facilitate/leadership – direct provision
IN15	Work with manufacturers & institutions to develop circular material models (e.g., product design, leasing systems etc.).	Maximises efficiencies and consistency, supporting better management of a wide range of materials.	Supports the development and implementation of circular resource networks; locally, across the region, and supporting national work; moves up the waste hierarchy by supporting prevention and reduction of waste at source.	Facilitate/leadership – direct provision

8.2.6 Leadership and Management

Ref	Option	Issues Addressed	Impact on Current/Future Demand Alignment with Te rautaki para	Council's Role
LM1	Advocate to central government for extended producer responsibility.	Implementation of product stewardship addresses problem waste streams at the source, such as vape waste.	Using the provisions in the WMA will help to ensure that the true cost of	Facilitate/leadership - advocate to central government for stronger

			waste management of a product is reflected in its price. Product stewardship schemes for difficult waste streams such as e-waste and tyres will help Council provide management options for these waste streams. Te rautaki para goal 1 priority 1.1; goal 4 priorities 4.1, 4.2 and 4.3; goal 5 priorities 5.1 and 5.3; goal 7 priority 7.1	regulation and extended producer responsibility. Work with other councils and agencies to support similar lobbying efforts.
LM2	Respond to central government consultations, engagements, technical advisory groups, and information sharing opportunities.	Waimakariri-specific issues are considered and reflected in national strategies, plans, regulation, and actions.	Ensures that central government work supports local/regional work, and that local/regional issues are recognised. Te rautaki para goal 1; goal 2 priorities 2.1 and 2.4	Facilitate/leadership - advocate to central government
LM3	Work closely with mana whenua, community groups, and the private sector to progress opportunities for increased waste reduction and diversion.	TAs, mana whenua, community groups and the private sector working together will increase waste reduction and diversion.	Encourage the community to be more involved in waste minimisation, and potentially reduce waste and increase waste diversion. Te rautaki para goal 1 priority 1.5; goal 2 priority 2.4; goal 4; goal 5 priorities 5.2, 5.3 and 5.4; goal 7 priority 7.1	Facilitate/leadership, funder: coordinate and support initiatives.
LM4	Continue to develop regional collaborative projects and work towards increasingly formal collaborative arrangements.	Many key issues would be more effectively resolved through regional collaboration.	Puts in place collaboration arrangements that are appropriate to the collaborative work agreed. Te rautaki para goal 1 priority 1.5	Facilitate/leadership - negotiate and agree collaborative working arrangements

LM5	Support regional and national initiatives and organisations campaigning for better waste management and minimisation such as WasteMINZ sector groups and the TAO Waste Manifesto.	Waimakariri/Canterbury-specific issues are considered and reflected in industry work programmes and Canterbury councils are aware and informed of work at the national scale.	Ensures that national scale work supports local/regional work, and that Canterbury councils are well positioned to make the most of opportunities from these national initiatives and organisations. Te rautaki para goal 1 priorities 1.1 and 1.5; goal 2 priorities 2.1, 2.2 and 2.3; goal 4 priorities 4.1, 4.2 and 4.3; goal 5 priorities 5.1 and 5.3; goal 7 priority 7.1	Facilitate/leadership: be involved, coordinate and support initiatives.
LM6	Support regional and national projects improving waste management planning in disaster situations.	Proactive planning in place for disaster waste.	Proactive planning in place for disaster waste. Te rautaki para goal 1 priority 1.5	Facilitate/leadership - provide information as requested, and any other input required.
LM7	Support national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.	Relevant issues relating to staff and vehicle resources are incorporated in national-level work and addressed at a national level.	Ensures that Waimakariri/Canterbury -focused issues are incorporated in national-level work on these issues. Te rautaki para goal 1 priority 1.5; goal 2 priority 2.1; goal 5 priority 5.2	Facilitate/leadership – provide support and information to national sector organisations.

The options identified and Council's possible role in meeting forecast demand comprise a range of proposals. The specific actions and timeframes for delivery will be identified through the development of draft Waste Management and Minimisation Plans, and will be dependent on the strategic direction preferred by each TA; the extent of collaboration that is desirable and possible; and the resources available to each TA.

It is expected that the implementation of the preferred options from these proposals, as will be set out in Council's draft WMMP, will meet forecast demand as well as support Council's goals and objectives for waste management and minimisation and the phase 1, 2 and 3 goals of Te rautaki para. These goals and objectives will be confirmed as part of the development and adoption of the draft WMMP.

8.3 Statement of Extent

In accordance with section 51 (f), a Waste Assessment must include a statement about the extent to which the proposals will (i) ensure that public health is adequately protected, (ii) promote effective and efficient waste management and minimisation.

8.3.1 Protection of Public Health

The Health Act 1956 requires councils to ensure the provision of waste services adequately protects public health. The Waste Assessment has identified potential public health issues, and appropriate mechanisms to manage these risks would be a part of any implementation programme.

In respect of Council-provided waste and recycling services, public health issues are and will continue to be addressed through setting appropriate performance standards for waste service contracts and ensuring performance is monitored and reported on, and that there are appropriate structures within the contracts for addressing issues that arise.

Privately-provided services can be regulated through local bylaws where necessary.

Uncontrolled disposal of waste, for example in rural areas and in cleanfills, can be regulated at a local, regional and central government level. Recent regulation adopted by government has extended both levy requirements and information reporting requirements to a wider range of facilities, and TAs will work with the regional council to ensure that waste issues are reflected appropriately in the developing regional plan/s.

It is considered that, subject to any further issues identified by the Medical Officer of Health, the proposals would adequately protect public health.

8.3.2 Effective and Efficient Waste Management and Minimisation

The Waste Assessment has investigated current and future quantities of waste and diverted material, and outlines Council's potential roles in meeting the forecast demand for services.'

It is considered that the process of forecasting has been robust, and that Council's intended role in meeting these demands is appropriate in the context of the overall statutory planning framework.

Therefore, it is considered that the proposals would promote effective and efficient waste management and minimisation.

9 Statement of Council's Intended Role

9.1 Statutory Obligations and Powers

Councils have a number of statutory obligations and powers in respect of the planning and provision of waste services. These include the following:

- Under the WMA each Council “must promote effective and efficient waste management and minimisation within its district” (s 42). The WMA requires TAs to develop and adopt a Waste Management and Minimisation Plan (WMMP).³⁵
- The WMA also requires TAs to have regard to the New Zealand Waste Strategy, Te rautaki para.
- Under Section 17A of the Local Government Act 2002 (LGA) local authorities must review the provision of services and must consider options for the governance, funding and delivery of infrastructure, local public services and local regulation. There is substantial cross over between the section 17A requirements and those of the WMMP process in particular in relation to local authority service provision.
- Under the Local Government Act 2002 (LGA) Councils must consult the public about their plans for managing waste.
- Under the Resource Management Act 1991 (RMA), TA responsibility includes controlling the effects of land-use activities that have the potential to create adverse effects on the natural and physical resources of their district. Facilities involved in the disposal, treatment or use of waste or recoverable materials may carry this potential. Permitted, controlled, discretionary, non-complying and prohibited activities and their controls are specified within district planning documents, thereby defining further land-use-related resource consent requirements for waste-related facilities.
- Under the Litter Act 1979 TAs have powers to make bylaws, issue infringement notices, and require the clean-up of litter from land.
- The Health Act 1956. Health Act provisions for the removal of refuse by local authorities have been repealed by local government legislation.
- The Hazardous Substances and New Organisms Act 1996 (the HSNO Act). The HSNO Act provides minimum national standards that may apply to the disposal of a hazardous substance. However, under the RMA a regional council or TA may set

³⁵ The development of a WMMP in the WMA is a requirement modified from Part 31 of the LGA 1974, but with even greater emphasis on waste minimisation.

more stringent controls relating to the use of land for storing, using, disposing of or transporting hazardous substances.

- Under current legislation and the new Health and Safety at Work Act the Council has a duty to ensure that its contractors are operating in a safe manner.

Council, in determining their role, needs to ensure that their statutory obligations, including those noted above, are met.

9.2 Overall Strategic Direction and Role

The role taken by Councils in implementing the options described in the previous section can vary significantly, for example Councils can:

- simply identify the need at a strategic level, with other sectors able to respond to the need as they wish;
- take a facilitation and leadership role in addressing the need, such as by creating working groups focusing on a particular material e.g., construction waste;
- regulator - use regulatory tools available to Councils to create an environment that encourages solutions, such as requiring construction site waste management plans, banning certain materials from landfill, etc.;
- influence the way gaps are addressed by others by making funding available for specific initiatives that address the need in some way; and
- take direct action by providing services or facilities that address the need.

The overall strategic direction and role is presented in the Waste Management and Minimisation Plan.

10 Statement of Proposals

Based on the options identified in this Waste Assessment and the Council's intended role in meeting forecast demand a range of proposals have been put forward in section 8. Actions and timeframes for delivery of priority proposals are identified in the Draft Waste Management and Minimisation Plan.

It is expected that the implementation of these proposals will meet forecast demand for services as well as support the Council's goals and objectives for waste management and minimisation. These goals and objectives will be confirmed as part of the development and adoption of the Waste Management and Minimisation Plan.

10.1 Statement of Extent

In accordance with section 51 (f), a Waste Assessment must include a statement about the extent to which the proposals will (i) ensure that public health is adequately protected, (ii) promote effective and efficient waste management and minimisation.

10.1.1 Protection of Public Health

The Health Act 1956 requires the Council to ensure the provision of waste services adequately protects public health.

The Waste Assessment has identified potential public health issues associated with each of the options, and appropriate initiatives to manage these risks would be a part of any implementation programme.

In respect of Council-provided waste and recycling services, public health issues will be able to be addressed through setting appropriate performance standards for waste service contracts and ensuring performance is monitored and reported on, and that there are appropriate structures within the contracts for addressing issues that arise.

Privately-provided services will be regulated through local bylaws.

Uncontrolled disposal of waste, for example in rural areas and in cleanfills, will be regulated through local and regional bylaws.

It is considered that, subject to any further issues identified by the Medical Officer of Health, the proposals would adequately protect public health.

10.1.2 Effective and Efficient Waste Management and Minimisation

The Waste Assessment has investigated current and future quantities of waste and diverted material, and outlines the Council's role in meeting the forecast demand for services.

It is considered that the process of forecasting has been robust, and that the Council's intended role in meeting these demands is appropriate in the context of the overall statutory planning framework for the Council.

Therefore, it is considered that the proposals would promote effective and efficient waste management and minimisation.

A.1.0 Medical Officer of Health Statement

Note: minor edits were made to the draft Waste Assessment following receipt of the Statement from the Medical Officer of Health.

9 November 2023

Lisa Eve
Principal Consultant
Eunomia Research & Consulting (NZ)

Dear Lisa

The Waste Minimisation Act 2008 requires that each Territorial Local Authority (TLA) must review its Waste Management and Minimisation Plan (WMMP) every 6 years. In doing so, it must make a waste assessment before conducting the review (s50 (2)).

A waste assessment must contain, amongst other things (s1(f)(i)) a statement about the extent to which the proposals contained in it will ensure that public health is adequately protected. The TLA must consider the following methods of waste management and minimisation; reduction, reuse, recycling, recovery, treatment and disposal (s44).

The feedback below is provided by the Medical Officer of Health on the Draft Waste

Assessment, July 2023, prepared by Eunomia on behalf of the Waimakariri District Council. This feedback is in response to the requirement in S51 (5) (b) *In making a waste assessment the TLA must consult the Medical Officer of Health.*

1.0 Key Waste Management Public Health Issues

The Medical Officer of Health considers that the Waimakariri Draft Waste Assessment is comprehensive and has adequately identified the significant issues that are likely to be of concern in terms of public health as follows:

- Identification of the various types of wastes and collection/disposal methods
- Satisfactory collection and disposal of waste so that public health risks are controlled and mitigated
- Addressing the particular issues of hazardous waste, including medical wastes, asbestos waste and electronic waste (e-waste)
- Consideration of future population demands and consumption rates on the current system and mitigation strategies in place
- Regional co-ordination of waste management and waste minimisation

- Ensuring that a waste disposal service is available to all residents/ratepayers
- Legislative and cost barriers that inhibit mitigation of public health issues related to waste
- The health impacts of climate change and the contribution that effective waste management and waste minimisation can make to reduction in greenhouse gas emissions

2.0 Assessment of Waste Quantities and Composition

The data presented in the assessment of waste quantities and composition suggest that measurement is sufficiently detailed and regular. It is pleasing to see that the proportion of waste-flows sent to landfill has continued to decrease from 2007-2021.

The Medical Officer of Health recommends that Council plan to continue to conduct regular standardised data collection and analysis of the composition and volume of the waste stream generated in the Waimakariri District, where this material ends up, and how it is managed over the long term.

3.0 Collection Services

It is positive to see the changes to kerbside collection that were proposed in the 2015/2025 LTP have now been achieved. A regular waste collection service reduces the likelihood of illegal dumping and prevents the accumulation of waste that may attract pests and create unpleasant odours, in turn leading to improved public health outcomes.

4.0 Food Scraps and Garden Organics Scheme

The Draft Waste Assessment notes that “over 65% of households have chosen to subscribe to the organics collection service, which is a high number for an optional service.” Despite this, the data presented in the Waste Assessment show that organics make up over a quarter of all waste sent to landfill, and that the proportion for kerbside collected rubbish is higher still. The predominant source of greenhouse gas emissions from waste disposal is the decomposition of organic wastes such as food scraps and organic waste in the anaerobic environment of a landfill that create leachate and methane, both being deleterious to public health.

Council is encouraged to consider replacing the optional Food Scraps and Garden Organics (FOGO) scheme with a universal provision scheme in order to further encourage and enable reduction of the FOGO component of the waste stream sent to landfill.

5.0 Medical Waste

As mentioned in the Waste Assessment, a significant proportion of in-home medical waste is currently disposed of through general waste systems and this could result in significant health and safety concerns for the collection and processing staff. The Council is encouraged to work with Te Whatu Ora Waitaha - Canterbury and medical waste service providers to ensure appropriate services are put in place to protect staff involved in the collection and processing of domestic medical waste.

6.0 Diverted Waste Streams

Diversion of reusable materials from waste streams and the provision of public collection points for product stewardship schemes are both positive actions that promote environmental protections which in turn support health. It is pleasing to see a commitment to identifying and engaging in opportunities in this space. However, the Medical Officer of Health cautions that diverted and collected materials that are stockpiled in the absence of a complete management pathway can constitute public health hazards if not carefully managed. Consolidation/bulking services must minimise fire, vermin, odour and other risks associated with stockpiled materials. Circular resource networks, as described in section

8.1, require careful assessment for true circularity prior to initiation, lest the receptive capacity be misaligned with input demand, resulting in the formation of unwieldy stockpiles which can quickly become public health threats.

7.0 Management of Historic Waste Disposal Sites

Council manages five closed landfills at Rangiora, Kaiapoi, Oxford, Mandeville, and Cust. The Waste Assessment also notes that on-farm waste burial is a practise that has been (and may still be) used in the region.

The Medical Officer of Health encourages Council to consider how hazards to public health from these sites, such as leachate contamination of groundwater, are identified, monitored and managed.

8.0 Waste Education and Minimisation Programmes

The Medical Officer of Health commends Council on their ongoing commitment to communication and education initiatives in their effort to reduce waste. Education is an important part of empowering individuals and communities in making informed decisions and changing behaviours that in turn support policy. It is encouraging to see this collaborative approach has identified mana whenua as being significant to this process.

Section 8.2.3 Education and Engagement focusses on the options and proposals for

Council to deliver education to communities “where there is low participation in recycling and/or organic waste services, and/or high contamination”. The Medical Officer of Health encourages Council to consider why participation is low or contamination high and to engage with these communities to discover this. A lack of education may not necessarily be the most important barrier to their participation. The Medical Officer of Health supports bi-directional engagement with the public, with specific strategies developed for ensuring Māori, as well as other groups’ aspirations, priorities, and needs are understood and provided for.

9.0 Currency and Correctness of Waste Assessment

There are some inconsistencies relating to the public health content which we suggest be corrected in the final version of the document:

- Section 7.9.2 Medical Waste refers to potential benefits of Council working with DHBs and other medical service providers. Please note that DHBs have been disestablished under the Pae Ora (Healthy Futures) Act 2022. The local health authority is now Te Whatu Ora Waitaha - Canterbury.
- Section 9.1 Statutory Obligations and Powers states: “The Public Health Bill is currently progressing through Parliament.” Please note that this Bill was discharged in 2015 without ever having become law. We suggest that the currency of all legislation referenced in the Waste Assessment is checked to ensure that legal obligations and powers are fully understood and addressed.

Thank you for the opportunity to comment on the Waimakariri District Council's Draft Waste Assessment.

Yours sincerely,



Dr Cheryl Brunton
Medical Officer of Health
Te Mana Ora | National Public Health Service
Waitaha | Canterbury

A.2.0 Glossary of Terms

Class 1-5 disposal facilities	Classification system for facilities where disposal to land takes place. The classification system is provided in 0 below for reference.
Cleanfill	A cleanfill (properly referred to as a Class 5 landfill) is any disposal facility that accepts only cleanfill material. This is defined as material that, when buried, will have no adverse environmental effect on people or the environment.
C&D Waste	Waste generated from the construction or demolition of a building including the preparation and/or clearance of the property or site. This excludes materials such as clay, soil and rock when those materials are associated with infrastructure such as road construction and maintenance, but includes building-related infrastructure.
Diverted Material	Anything that is no longer required for its original purpose and, but for commercial or other waste minimisation activities, would be disposed of or discarded.
Domestic Waste	Waste from domestic activity in households.
ETS	Emissions Trading Scheme
ICI	Industrial, Commercial, Institutional
Landfill	A type of disposal facility as defined in S.7 of the Waste Minimisation Act 2008, excluding incineration. Includes, by definition in the WMA, only those facilities that accept 'household waste'. Also referred to as a Class 1 landfill.
LGA	Local Government Act 2002
Managed Fill	A Class 3 disposal site requiring a resource consent to accept well-defined types of non-household waste, e.g. low-level contaminated soils or industrial by-products, such as sewage by-products.
MfE	Ministry for the Environment

MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
NZ	New Zealand
NZWS	New Zealand Waste Strategy
PS	Product Stewardship programmes
Putrescible, garden, greenwaste	Plant based material and other bio-degradable material that can be recovered through composting, digestion or other similar processes.
RRP	Resource Recovery Park
RTS	Refuse Transfer Station
Service Delivery Review	As defined by s17A of the LGA 2002. Councils are required to review the cost-effectiveness of current arrangements for meeting the needs of communities within its district or region for good-quality local infrastructure, local public services, and performance of regulatory functions. A review under subsection (1) must consider options for the governance, funding, and delivery of infrastructure, services, and regulatory functions.
TA	Territorial Authority (a city or district council)
Waste	Means, according to the WMA: a) Anything disposed of or discarded, and b) Includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and c) To avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.
WA	Waste Assessment as defined by s51 of the Waste Minimisation Act 2008. A Waste Assessment must be completed whenever a WMMP is reviewed
WMA	Waste Minimisation Act 2008

WMMP	A Waste Management and Minimisation Plan as defined by s43 of the Waste Minimisation Act 2008
WWTP	Wastewater treatment plant

A.3.0 Classifications for Disposal to Land

MfE have classified disposal and other waste facilities under two regulations, which enable the application of the disposal levy and the collection of data. Facilities had also previously been categorised according to the WasteMINZ 'Technical Guidelines for the Disposal of Waste to Land', and there are some slight variations between the two.

A.3.1 Technical Guidelines Definitions

Class 1 - Landfill

A Class 1 landfill is a site that accepts municipal solid waste. A Class 1 landfill generally also accepts C&D waste, some industrial wastes and contaminated soils. Class 1 landfills often use managed fill and clean fill materials they accept, as daily cover.

Class 1 landfills require:

- a rigorous assessment of siting constraints, considering all factors, but with achieving a high level of containment as a key aim;
- engineered environmental protection by way of a liner and leachate collection system, and an appropriate cap, all with appropriate redundancy; and
- landfill gas management.

A rigorous monitoring and reporting regime is required, along with stringent operational controls. Monitoring of accepted waste materials is required, as is monitoring of sediment runoff, surface water and groundwater quality, leachate quality and quantity, and landfill gas.

Waste acceptance criteria (WAC) comprises:

- municipal solid waste; and
- for potentially hazardous leachable contaminants, maximum chemical contaminant leachability limits (TCLP) from Module 2 Hazardous Waste Guidelines – Class A4.

WAC for potentially hazardous wastes and treated hazardous wastes are based on leachability criteria to ensure that leachate does not differ from that expected from non-hazardous municipal solid waste.

For Class 1 landfills, leachability testing should be completed to provide assurance that waste materials meet the WAC.

Class 2 Landfill

A Class 2 landfill is a site that accepts non-putrescible wastes including C&D wastes, inert industrial wastes, managed fill material and clean fill material. C&D waste can contain biodegradable and leachable components which can result in the production of leachate – thereby necessitating an increased level of environmental protection. Although not as strong as Class 1 landfill leachate, Class 2 landfill leachate is typically characterised by mildly acidic pH, and the presence of ammoniacal nitrogen and soluble metals, including heavy metals. Similarly, industrial wastes from some activities may generate leachates with chemical characteristics that are not necessarily organic.

Class 2 landfills should be sited in areas of appropriate geology, hydrogeology and surface hydrology. A site environmental assessment is required, as are an engineered liner, a leachate collection system, and groundwater and surface water monitoring. Additional engineered features such as leachate treatment may also be required.

Depending on the types and proportions of C&D wastes accepted, Class 2 landfills may generate minor to significant volumes of landfill gas and/or hydrogen sulphide. The necessity for a landfill gas collection system should be assessed.

Operational controls are required, as are monitoring of accepted waste materials, monitoring of sediment runoff, surface water and groundwater quality, and monitoring of leachate quality and quantity.

Waste acceptance criteria comprises:

- a list of acceptable materials; and
- • maximum ancillary biodegradable materials (e.g. vegetation) to be no more than 5% by volume per load; and
- • maximum chemical contaminant leachability limits (TCLP) for potentially hazardous leachable contaminants.

Class 3 Landfill – Managed/Controlled Fill

A Class 3 landfill accepts managed fill materials. These comprise predominantly clean fill materials, but may also include other inert materials and soils with chemical contaminants at concentrations greater than local natural background concentrations, but with specified maximum total concentrations.

Site ownership, location and transport distance are likely to be the predominant siting criteria. However, as contaminated materials (in accordance with specified limits) may be accepted, an environmental site assessment is required in respect of geology, stability, surface hydrology and topography.

Monitoring of accepted material is required, as are operational controls, and monitoring of sediment runoff and groundwater.

Waste acceptance criteria comprises:

- a list of acceptable solid materials; and
- maximum incidental or attached biodegradable materials (e.g. vegetation) to be no more than 2% by volume per load; and

- maximum chemical contaminant limits.

A Class 3 landfill does not include any form of engineered containment. Due to the nature of material received it has the potential to receive wastes that are above soil background levels. The WAC criteria for a Class 3 landfill are therefore the main means of controlling potential adverse effects.

For Class 3 landfills, total analyte concentrations should be determined to provide assurance that waste materials meet the WAC.

Class 4 Landfill – Controlled Fill

A Class 4 landfill accepts controlled fill materials. These comprise predominantly clean fill materials, but may also include other inert materials and soils with chemical contaminants at concentrations greater than local natural background concentrations, but with specified maximum total concentrations.

Site ownership, location and transport distance are likely to be the predominant siting criteria. However, as contaminated materials (in accordance with specified limits) may be accepted, an environmental site assessment is required in respect of geology, stability, surface hydrology and topography.

Monitoring of accepted material is required, as are operational controls, and monitoring of sediment runoff and groundwater.

Waste acceptance criteria comprises:

- a list of acceptable solid materials; and
- maximum incidental or attached biodegradable materials (e.g. vegetation) to be no more than 2% by volume per load; and
- maximum chemical contaminant limits.

A Class 4 landfill does not include any form of engineered containment. Due to the nature of material received it has the potential to receive wastes that are above soil background levels. The WAC criteria for a Class 4 landfill are therefore the main means of controlling potential adverse effects.

Class 5 Fil – Cleanfill

A Class 5 fill accepts only clean fill material. The principal control on contaminant discharges to the environment from Class 5 fills is the waste acceptance criteria.

Stringent siting requirements to protect groundwater and surface water receptors are not required. Practical and commercial considerations such as site ownership, location and transport distance are likely to be the predominant siting criteria, rather than technical criteria.

Clean filling can generally take place on the existing natural or altered land without engineered environmental protection or the development of significant site infrastructure. However, surface water controls may be required to manage sediment runoff.

Extensive characterisation of local geology and hydrogeology is not usually required.

Monitoring of both accepted material and sediment runoff is required, along with operational controls.

Waste acceptance criteria:

- virgin excavated natural materials (VENM), including soil, clay, gravel and rock; and
- maximum incidental inert manufactured materials (e.g. concrete, brick, tiles) to be no more than 5% by volume per load; and
- maximum incidental or attached biodegradable materials (e.g. vegetation) to be no more than 2% by volume per load; and
- maximum chemical contaminant limits are local natural background soil concentrations.

Materials disposed to a Class 5 fill should pose no significant immediate or future risk to human health or the environment.

The WAC for a Class 5 fill should render the site suitable for unencumbered potential future land use, i.e. future residential development or agricultural land use.

The WAC for a Class 5 fill are based on the local background concentrations for inorganic elements, and provide for trace concentrations of a limited range of organic compounds.

Note: The Guidelines should be referred to directly for the full criteria and definitions.

A.3.2 Ministry for the Environment Classifications

The Ministry for the Environment have recently extended the payment of the landfill levy to a wider range of disposal facilities, and have also required reporting of data from 'cleanfills' and transfer stations. This has entailed two regulations – the first to extend the levy to other facilities³⁶ and the second to require data reporting from 'cleanfills' and transfer stations³⁷.

These regulations establish definitions for a range of disposal and other waste facilities beyond the Class 1 landfills that were captured by the landfill levy when it was first introduced.

These are summarised in the table below:

³⁶ <https://www.legislation.govt.nz/regulation/public/2021/0068/latest/LMS474556.html>

³⁷ <https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html>

Disposal facility class	Description	Types of waste not accepted	Examples of types of waste accepted
1 Municipal Disposal Facility	A facility, including a landfill: • where waste is disposed of • that operates, at least in part, as a business to dispose of waste • accepts waste that is or includes any one or more of the following: - household waste - waste from commercial or industrial sources - waste from institutional sources (eg, hospitals, educational facilities and aged-care facilities) - green waste (eg, degradable plant materials such as tree branches, leaves, grass, and other vegetation matter) - waste that is not accepted at other disposal facilities in the WMA. It is not a: • class 2: construction and demolition disposal facility • class 3 and 4 managed or controlled fill disposal facility • an industrial monofill facility • a cleanfill facility.		Types of waste may include (but not limited to): • mixed municipal waste from residential, commercial and industrial sources • construction and demolition waste • contaminated soils • rocks, gravel, sand, clay • sludges • slurries • putrescible waste • green waste • biosolids • clinical waste • treated hazardous waste • incidental hazardous waste.
2 C&D Disposal	Accepts waste from construction and demolition activity It is not a: • class 3 and 4 managed or controlled fill disposal facility • an industrial monofil facility • a cleanfill facility.	Does not accept any of the following for disposal: • household waste • waste from commercial or industrial sources • waste from institutional sources (eg, hospitals, educational facilities, and aged-care facilities) • waste generated from a single industrial	Mixed construction and demolition waste including: • rubble, plasterboard, treated and untreated timber • wood products, including softboard, hardboard, particle board, plywood, MDF, customwood, shingles, sawdust

		process (eg, steel or aluminium-making, or pulp and paper-making) carried out in one or more locations • Is not a class 3 and 4 managed or controlled fill facility	• concrete, including reinforced or crushed concrete blocks • clay products including pipes, tiles • asphalt (all types), and roading materials, including road sub-base • plasterboard and Gibraltar board • masonry, including bricks, pavers • metal, or products containing metals, including corrugated iron, steel, steel-coated tiles, wire, wire rope, wire netting, aluminium fittings • plastic products, including plastic bags, pipes, guttering, building wrap • insulation products • laminate products, including Formica • flooring products, including carpet and underlay, vinyl/linoleum, cork tiles • paper and cardboard products, including wallpaper, lining paper, building paper • site clearance and excavation materials including soils, clays, rocks, gravel, tree stumps
3/4 Managed or Controlled Fill Disposal	Accepts any one of the following for disposal: • inert waste material from construction and demolition activities	Does not accept: • household waste • waste from commercial or industrial sources	Types of waste may include (but not limited to): • lightly contaminated soil below applicable consent limits and inert

	• inert waste material from earthworks or site remediation	• waste from institutional sources (eg, hospitals, educational facilities, and aged-care facilities) • waste generated from a single industrial process (eg, steel or aluminium-making, or pulp and paper-making) carried out in one or more locations • waste material from construction and demolition activity (except for inert waste material).	construction and demolition materials, including: - site facilities clearance and excavation materials including soils, clays, rocks, gravel, tree stumps masonry, including bricks and pavers clay products, including pipes, tiles - concrete, including crushed concrete and blocks (for reinforced concrete, exposed reinforcing must be removed) - asphalt (bitumen-based only) - road sub-base.
5 Cleanfill	A facility that accepts only virgin excavated natural material (such as clay, soil, or rock) for disposal	Any materials other than virgin excavated natural materials (VENM)	VENM such as clay, soil and rock
Industrial monofill	A facility that accepts for disposal waste that: • discharges or could discharge contaminants or emissions • is generated from a single industrial process (eg, steel or aluminium-making, or pulp and paper-making) carried out in one or more locations.	• household waste • waste from commercial or institutional sources (eg, hospitals, educational facilities, and aged-care facilities) • waste not generated by a single industrial process.	Waste generated by industrial processes such as: • steel-making • aluminium-making • pulp and paper • oil exploration and extraction
Transfer station	A facility: • that contains a designated receiving area where waste is received; and • from which waste or any material derived from that waste is: transferred to a final disposal site transferred elsewhere for further processing that does not itself provide	N/A (no disposal of waste occurs)	N/A

	long-term storage for waste or material derived from that waste.		
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A.4.0 National Legislative and Policy Context

A.4.1 The New Zealand Waste Strategy 2023

The New Zealand Waste Strategy 2023 provides the Government's strategic direction for waste management and minimisation in New Zealand. This strategy was released in 2023 and replaced the 2010 Waste Strategy.

The strategy aims to provide direction to central and local government, businesses (including the waste industry), and communities on where to focus their efforts to manage waste. It will be supported by an action and investment plan (AIP) which will be developed in consultation with local authorities, the waste management sector, and others; and will set out priority actions required over the next five years. The 2023 strategy has a focus on achieving a more 'circular economy' for waste and sets out a multi-decade pathway towards this.

Under section 44 of the Waste Management Act 2008, in preparing their waste management and minimisation plan (WMMP) councils must have regard to the New Zealand Waste Strategy, or any government policy on waste management and minimisation that replaces the strategy. Guidance on how councils may achieve this is provided in section 4.4.3.

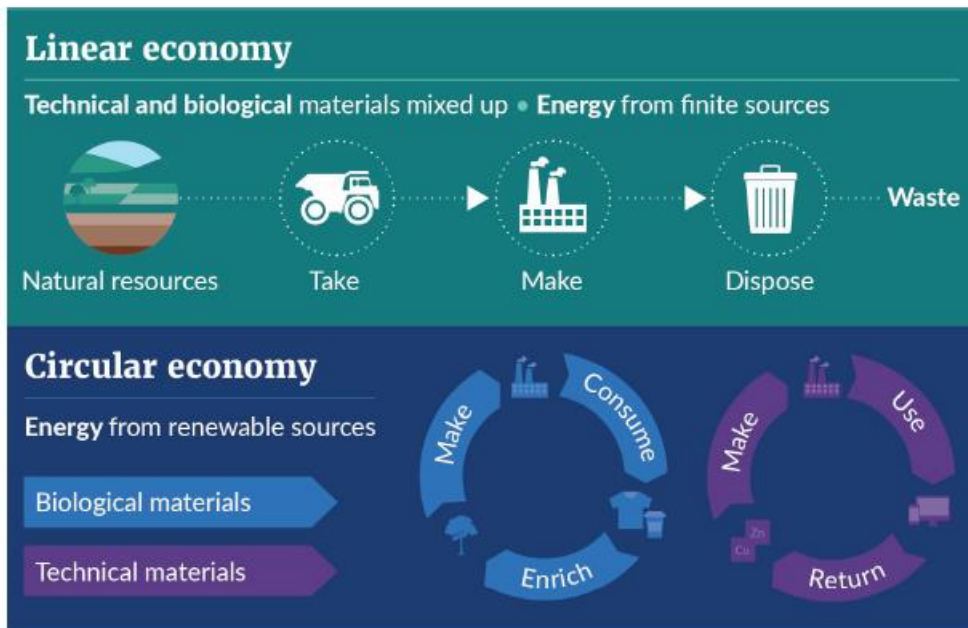
A copy of the current New Zealand Waste Strategy is available on the Ministry's website. Sections of the new strategy are discussed here in more detail.

A.4.1.1 Circular Economy principles

The strategy includes some background on circular economy, including some summary figures that compare a linear economy to a circular economy, and a revised waste hierarchy. It also emphasises the role of te ao Māori in considering waste approaches.

The figures mentioned above are shown here (with permission from MfE):

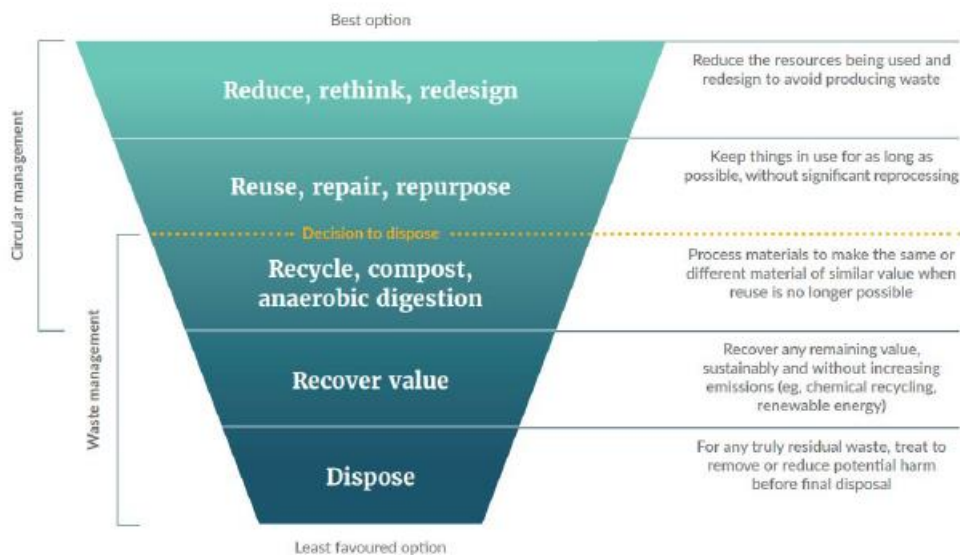
Figure 14: Characteristics of Linear and Circular Economies



Source: Te rautaki para | Waste Strategy (page 14), Ministry for the Environment 2023

The waste hierarchy is still a core principle guiding waste management and minimisation in New Zealand, but has been refined to more closely support and align with a circular economy approach.

Figure 15: Revised Waste Hierarchy



Source: Te rautaki para | Waste Strategy (page 14), Ministry for the Environment 2023

The strategy highlights several key facts that demonstrate New Zealand's relatively poor performance in waste management and minimisation:

- emissions from waste produce 9% of New Zealand’s biogenic methane emissions, and 4% of our total greenhouse gas emissions, with organic waste decomposing in landfills contributing 94% of these emissions;
- on average, nearly 700 kg of waste per capita goes to municipal landfills³⁸ annually – compared to the OECD average of 538 kg; and trends are for this to increase;
- domestic recovery infrastructure is limited, and exporting challenging due to our relative geographic isolation and distance from markets;
- lack of data relating to waste practices, significantly non-municipal landfills and diverted materials; and
- historical management has been poor, with numerous legacy disposal sites around the country causing local environmental harm.

A.4.1.2 The Strategy

The direction of the strategy is important in many, very practical, ways; it provides a clear vision through to 2050, principles that support this vision, a phased approach with three clear stages, and targets to measure progress and encourage ambitious action.

Three key strategic issues are core to the strategy – domestic resource recovery and recycling, the role of waste to energy, and net zero emissions by 2050.

The vision is:

“By 2050, Aotearoa New Zealand is a low-emissions, low-waste society, built upon a circular economy.

We cherish our inseparable connection with the natural environment and look after the planet’s finite resources with care and responsibility.”

Six guiding principles are included.

A.4.1.3 A staged process

While the strategy has a view out to 2050, the work required to get there has been divided into three high level work stages:

1. 2022 – 30: embedding circular thinking into systems
2. 2030 – 40: expanding to make circular normal
3. 2040 – 50: Helping others do the same

Each stage has a number of goals, some of which are more relevant to TAs than others – Phase 1 is shown in the table below and has been addressed in the options list.

³⁸ ‘municipal landfill’, ‘municipal solid waste landfill’ ‘sanitary landfill’ and ‘Class 1 landfill’ are all terms that essentially refer to the same type of facility.

Phase 1 Goals – By 2030, our enabling systems are working well and behaviour is changing	
<i>The building blocks are in place to enable change</i>	
Strategic planning, regulatory, investment and engagement systems are in place and operating to drive and support change	TAs have a role in strategic planning at a local level (through WMMPs), which will both inform and be informed by the AIP. TAs also have a role, albeit limited compared to the national role, to contribute through local bylaws and any local funding pools that are available. TAs carry out local engagement and can support national campaigns.
We have a comprehensive national network of facilities supporting the collection and circular management of products and materials	TAs will be well placed to understand what this means at a local level, and be able to drive and coordinate the development of a network approach.
We all take responsibility for how we produce, manage, and dispose of things, and are accountable for our actions and their consequences	This is likely to be aimed mainly at personal responsibility – although TAs can encourage this attitude locally.
Specific Priorities:	• Support the creation of national planning, regulatory and investment systems. • Consider how the timing and interactions of central government and local government waste planning could best be integrated, and communicate to MfE. • Consider how to use waste levy funding to support the overall strategic framework of funding and investment, given the AIP context, direction and priorities – collaborate with other councils and with central government to a greater extent. • Support the development of simple ways for central and local government to collaborate and work in partnership.

	• Work with central government, the waste sector, and others to develop a shared view of what a 'comprehensive national network of facilities' looks like. • Align overall direction and approach with this. • The network needs to have nationwide coverage and include a range of products and materials, and focus on circular management options where possible. • Prioritise reducing greenhouse gas emissions. • Ensure planning and consenting teams require new builds to have appropriate space for waste management, there is space for community facilities, and feed in to regional plans to ensure they provide for a 'coherent network'. • Identify and work with community partners to extend services into hard-to-reach areas. • Promote waste minimisation using long-term, evidence-based behaviour change programmes. • Provide timely, accurate and clear information when creating additional obligations through bylaws or introducing new services.
<i>More activity is circular and we produce less waste</i>	
We use fewer products and materials, and using (sic) them for longer, by making them more durable, and repairing, reusing, sharing and repurposing them	As above, TAs have a detailed understanding of what is required to enable repair, reuse, sharing and repurposing at the local level.
Resource recovery systems are operating effectively for core materials and across all regions	TAs will have a key role in developing and maintaining resource recovery systems at the local level. Regional and cross-regional collaboration will be needed to ensure these form part of a cohesive network.
We look for ways to recover any remaining value from residual waste, sustainably and without increasing emissions, before final disposal	TAs will need to consider any potential role for energy-from-waste technologies at the local and/or regional level – particularly those that operate landfills.

Specific Priorities	• Support repair initiatives by, for example, making space in resource recovery centres or other community facilities. • Think about how to cater for future reuse systems when developing infrastructure to support collection and processing of products and materials. • Take responsibility for kerbside collection of household recycling and general waste. • Find solutions to provide services to small towns and rural areas. • Implement kerbside standardisation locally. • Recover value from 'truly residual waste' without harming the environment. • Consider the purpose, feedstock, processing and potential energy production of any 'waste to energy' methodology.
<i>Emissions and other environmental indicators are improving</i>	
Emissions from waste are reducing in line with our domestic and international commitments	Tas will need to model and monitor emissions from their local activities.
Contaminated land is sustainably managed and remediated, to reduce waste and emissions and enhance the environment	TAs are responsible for the management of their closed landfills.
Specific Priorities	• Maximise the amount of organic waste being recycled into beneficial uses (composting and anaerobic digestion are options). • Implement standardised kerbside collections locally for organic wastes (with support and education). • Fund and invest in infrastructure to collect, process, manage and recycle organic waste (food, garden and C&D organics). • Landfill gas capture at Class 1 facilities by the end of 2026 or cease accepting organic waste. • Potentially implement landfill organics ban by 2030 at all Class 1 facilities. • Address the management of 'vulnerable landfills' if any are identified that are council's responsibility that are not already included in a closed landfill management plan.

A.4.1.4 Targets

The strategy includes targets; although it is acknowledged that there currently isn't enough (or reliable enough) data to set an accurate baseline or monitor these fully.

TAs should consider these, however, when setting targets in their WMMPs as it would make sense for these metrics to be reflected in local target setting and monitoring. This will also provide more support to the process of monitoring these targets at a national level.

A.4.1.5 Strategic Planning Cycle

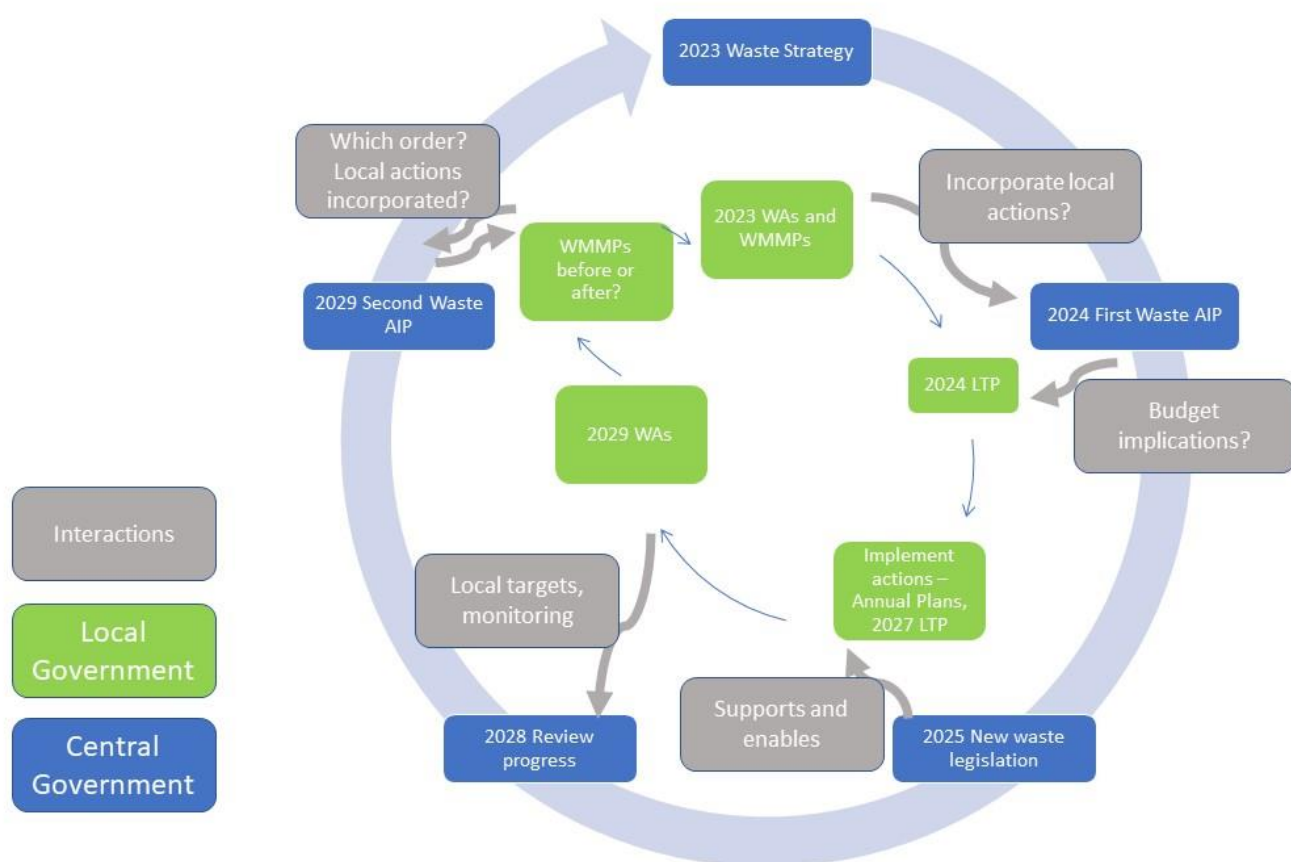
Many TAs are currently in the process of completing a Waste Assessment with a view to reviewing their WMMPs (if necessary) during the second half of 2023 so actions can be budgeted and included in 2024 LTPs. The current proposal is for the first of the MfE AIP to be out in 2024, and then a five year cycle to occur from there – so the second AIP will be due in 2029. This doesn't fit neatly with the local government planning cycle, particularly for Council which is completing a Waste Assessment during 2023 (and therefore would need to repeat this process no later than 2029).

It is not yet clear the extent to which local planning (through WMMPs) will be used to build, and be incorporated in, the AIPs. It is also not clear what the impact would be if the AIP included actions or investments that would require implementation at a local level, as is likely – and therefore may need to be included in WMMPs. Significant amendments to WMMPs do, of course, require that the full special consultative process is completed again.

The question then arises as to how TAs handle the situation where they are required, through regulation or through implementation of national AIPs and to take advantage of specific focuses for funding opportunities, to implement actions that their local communities have not had the opportunity to comment on fully through consultation.

The figure below attempts to align and show the interactions between the central and local government waste planning cycles.

Figure 16: Central and Local Government Waste Planning



A.4.1.6 Summary

The direction of the New Zealand Waste Strategy, the supporting goals, and the proposed targets all have clear implications for the future direction of waste disposal facilities in this country.

- The overall direction of the Waste Strategy is towards a circular economy, which is not supported by a landfill disposal-based linear system;
- there are specific actions relating to reducing a wide range of waste streams, and specifically and particularly organic waste – in concert with work to reduce emissions. This could extend to a ban on organic waste going to landfill; and
- the targets focus on reducing waste generation and waste disposal by 2030 – by quite significant proportions.

The overall tone of the strategic direction is not in support of continued or extended disposal of waste; and particularly not organic wastes.

A.4.2 Waste Minimisation Act 2008

The purpose of the Waste Minimisation Act 2008 (WMA) is to encourage waste minimisation and a decrease in waste disposal to protect the environment from harm and obtain environmental, economic, social and cultural benefits.

The WMA introduced tools, including:

- waste management and minimisation plan obligations for territorial authorities
- a waste disposal levy to fund waste minimisation initiatives at local and central government levels
- product stewardship provisions.

Part 4 of the WMA is dedicated to the responsibilities of a council, in that it “must promote effective and efficient waste management and minimisation within its district” (section 42).

To meet this requirement, councils are required to develop and adopt a WMMP. The development of a WMMP in the WMA is a requirement modified from Part 31 of the Local Government Act 1974, but with even greater emphasis on waste minimisation.

To support the implementation of a WMMP, section 56 of the WMA also provides councils the ability to:

- develop bylaws
- regulate the deposit, collection and transportation of wastes
- prescribe charges for waste facilities
- control access to waste facilities
- prohibit the removal of waste intended for recycling.

A number of specific clauses in Part 4 relate to the WMMP process. It is essential that those involved in developing a WMMP read and are familiar with the WMA and Part 4 in particular.

The Waste Minimisation Act 2008 (WMA) provides a regulatory framework for waste minimisation that had previously been based on largely voluntary initiatives and the involvement of territorial authorities under previous legislation, including Local Government Act 1974, Local Government Amendment Act (No 4) 1996, and Local Government Act 2002. The purpose of the WMA is to encourage a reduction in the amount of waste disposed of in New Zealand.

In summary, the WMA:

- Clarifies the roles and responsibilities of territorial authorities with respect to waste minimisation e.g. updating Waste Management and Minimisation Plans (WMMPs) and collecting/administering levy funding for waste minimisation projects.

- Requires that a Territorial Authority promote effective and efficient waste management and minimisation within its district (Section 42).
- Requires that when preparing a WMMP a Territorial Authority must consider the following methods of waste management and minimisation in the following order of importance:
 - Reduction
 - Reuse
 - Recycling
 - Recovery
 - Treatment
 - Disposal
 - Put a levy on all waste disposed of in a landfill.
 - Allows for mandatory and accredited voluntary product stewardship schemes.
 - Allows for regulations to be made making it mandatory for certain groups (for example, landfill operators) to report on waste to improve information on waste minimisation.
 - Establishes the Waste Advisory Board to give independent advice to the Minister for the Environment on waste minimisation issues.

Various other aspects of the Waste Minimisation Act are discussed in more detail below.

A.4.3 Waste Levy

The waste levy originally came into effect from 1st July 2009, adding \$10 per tonne to the cost of landfill disposal at sites which accept household solid waste (essentially Class 1 disposal facilities). The levy has two purposes, which are set out in the Act:

- to raise revenue for promoting and achieving waste minimisation
- to increase the cost of waste disposal to recognise that disposal imposes costs on the environment, society and the economy.

This levy is collected and managed by the Ministry for the Environment (MfE) who distribute half of the revenue collected to territorial authorities (TA) on a population basis to be spent on promoting or achieving waste minimisation as set out in their WMMPs. The other half is retained by the MfE and managed by them as a central contestable fund for waste minimisation initiatives (the Waste Minimisation Fund).

In April 2021, the government introduced regulation to expand the scope of the levy from Class 1 landfills to also include classes 2-4.³⁹

The table below shows the timetable and rates for the new levy regime:

Table 23: Levy Rates by Fill Type and Year

LANDFILL CLASS	1-Jul-21	1-Jul-22	1-Jul-23	1-Jul-24
Municipal landfill (class 1)	\$20	\$30	\$50	\$60
Construction and demolition fill (class 2)		\$20	\$20	\$30
Managed fill (class 3)			\$10	\$10
Controlled fill (class 4)			\$10	\$10

<https://www.mfe.govt.nz/waste/waste-and-government>

As the landfill levy is expanded and raised, there will be an impact on the quantity of material going to the different destinations; however, the extent to which this occurs, and for which materials, depends on a number of other factors.

One impact that has been noted in some areas of New Zealand, for example, is operators choosing to close rather than add the landfill levy to their gate fee, and undertake the administrative task of monitoring waste quantities to the extent required by the online waste levy system (OWLS). Some of these facilities don't have weighbridges in place and instead base their charges on volume estimates. To report to the OWLS, these facilities then need to translate volumes to weights, and it is on this basis that their landfill levy obligations are calculated. Therefore, any variances in conversion rates between volume and weight could result in an over- or under-calculation of the required landfill levy at the gate.

A.4.4 Product Stewardship

Under the Waste Minimisation Act 2008, if the Minister for the Environment declares a product to be a priority product, a product stewardship scheme must be developed and accredited to ensure effective reduction, reuse, recycling or recovery of the product and to manage any environmental harm arising from the product when it becomes waste.⁴⁰

³⁹ <https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html>

⁴⁰ Waste Management Act 2008 2(8)

The following voluntary product stewardship schemes have been accredited by the Minister for the Environment:⁴¹

- Agrecovery rural recycling programme
- Envirocon product stewardship
- Fonterra Milk for Schools Recycling Programme
- Fuji Xerox Zero Landfill Scheme
- Holcim Geocycle Used Oil Recovery Programme (no longer operating)
- Interface ReEntry Programme
- Kimberly Clark NZ's Envirocomp Product Stewardship Scheme for Sanitary Hygiene Products
- Plasback
- Public Place Recycling Scheme
- Recovering of Oil Saves the Environment (R.O.S.E. NZ)
- Refrigerant recovery scheme
- RE:MOBILE
- Resene PaintWise
- The Glass Packaging Forum

Further details on each of the above schemes are available on:

<http://www.mfe.govt.nz/waste/product-stewardship/accredited-voluntary-schemes>

The first six priority products were named under the WMA in 2020 (shown below) and subsequently single-use packaging has been added. The first seven priority products named are:

1. Plastic packaging
2. Tyres
3. Electrical and electronic products (e-waste including large batteries)
4. Agrichemicals and their containers
5. Refrigerants
6. Farm plastics
7. Single-use plastic packaging

MfE has taken a 'co-design' approach, which involves industry developing and operating product stewardship schemes with central government oversight. Progress on the schemes, and parties involved, are summarised below.

Priority product	Progress made	Lead agency/ies
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⁴¹ <http://www.mfe.govt.nz/waste/product-stewardship/accredited-voluntary-schemes>

Tyres	Consultation on proposed regulations late 2021 Scheme accredited October 2022 Regulation in effect from late 2023	Tyrewise
Large batteries	Consultation on proposed regulations late 2021 Accreditation expected late 2023 Regulation in effect from 2024	Battery Industry Group
Refrigerants (and other synthetic greenhouse gases)	Consultation on regulations in late 2022 Scheme accreditation mid 2023 Regulation in effect from 2024	Synthetic Refrigerant Stewardship group
Farm plastics, agrichemicals and containers (farm waste)	Consultation on regulations planned late 2023	The Agrecovery Foundation
Electrical and electronic products (e-waste)	Scheme design in 2023 Consultation on regulations in 2024	TechCollect
Plastic packaging	Co-design underway	Packaging Forum and Food & Grocery Council

A.4.5 Waste Minimisation Fund

The Waste Minimisation Fund has been set up by the Ministry for the Environment to help fund waste minimisation projects and to improve New Zealand's waste minimisation performance through:

- Investment in infrastructure;
- Investment in waste minimisation systems; and
- Increasing educational and promotional capacity.

Criteria for the Waste Minimisation Fund have been published:

1. Only waste minimisation projects are eligible for funding. Projects must promote or achieve waste minimisation. Waste minimisation covers the reduction of waste and the

reuse, recycling and recovery of waste and diverted material. The scope of the fund includes educational projects that promote waste minimisation activity.

2. Projects must result in new waste minimisation activity, either by implementing new initiatives or a significant expansion in the scope or coverage of existing activities.
3. Funding is not for the ongoing financial support of existing activities, nor is it for the running costs of the existing activities of organisations, individuals, councils or firms.
4. Projects should be for a discrete timeframe of up to three years, after which the project objectives will have been achieved and, where appropriate, the initiative will become self-funding.
5. Funding can be for operational or capital expenditure required to undertake a project.
6. For projects where alternative, more suitable, Government funding streams are available (such as the Sustainable Management Fund, the Contaminated Sites Remediation Fund, or research funding from the Foundation for Research, Science and Technology), applicants should apply to these funding sources before applying to the Waste Minimisation Fund.
7. The applicant must be a legal entity.
8. The fund will not cover the entire cost of the project. Applicants will need part funding from other sources.
9. The minimum grant for feasibility studies will be \$10,000.00. The minimum grant for other projects will be \$50,000.00.

Application assessment criteria have also been published by the Ministry.

The current funding round opened in October 2022 and will consider applications as they are received, and will agree to fund successful applications until funds are exhausted.

A.4.6 Local Government Act 2002

The Local Government Act 2002 (LGA) provides the general framework and powers under which New Zealand's democratically elected and accountable local authorities operate.

The LGA contains various provisions that may apply to councils when preparing their WMMPs, including consultation and bylaw provisions. For example, Part 6 of the LGA refers to planning and decision-making requirements to promote accountability between local authorities and their communities, and a long-term focus for the decisions and activities of the local authority. This part includes requirements for information to be included in the long-term plan (LTP), including summary information about the WMMP.

More information on the LGA can be found at www.dia.govt.nz/better-local-government.

A.4.6.1 Section 17A Review

Local authorities are now under an obligation to review the cost-effectiveness of current arrangements for meeting community needs for good quality infrastructure, local public services and local regulation. Where a review is undertaken local authorities must consider options for the governance, funding and delivery of infrastructure, local public services and local regulation that include, but are not limited to:

- a) in-house delivery
- b) delivery by a CCO, whether wholly owned by the local authority, or a CCO where the local authority is a part owner
- c) another local authority
- d) another person or agency (for example central government, a private sector organisation or a community group).

Local authorities had three years from 8 August 2014 to complete the first review of each service i.e. they must have completed a first review of all their services by 7 August 2017 (unless something happened to trigger a review before then).

Other than completion by the above deadline, there are two statutory triggers for a section 17A review:

- The first occurs when a local authority is considering a significant change to a level of service;
- The second occurs where a contract or other binding agreement is within two years of expiration.

Once conducted, a section 17A review has a statutory life of up to six years. Each service must be reviewed at least once every six years unless one of the other events that trigger a review comes into effect.

While the WMMP process is wider in scope – considering all waste service provision in the local authority area – and generally taking a longer term, more strategic approach, there is substantial crossover between the section 17A requirements and those of the WMMP process, in particular in relation to local authority service provision. The S17A review may however take a deeper approach go into more detail in consideration of how services are to be delivered, looking particularly at financial aspects to a level that are not required under the WMMP process.

Because of the level of crossover however it makes sense to undertake the S17A review and the WMMP process in an iterative manner. The WMMP process should set the strategic direction and gather detailed information that can inform both processes. Conversely the consideration of options under the s17A process can inform the content of the WMMP – in particular what is contained in the action plans.

A.4.7 Resource Management Act 1991

The Resource Management Act 1991 (RMA) promotes sustainable management of natural and physical resources. Although it does not specifically define ‘waste’, the RMA addresses waste management and minimisation activity through controls on the environmental effects of waste management and minimisation activities and facilities through national, regional and local policy, standards, plans and consent procedures. In this role, the RMA exercises considerable influence over facilities for waste disposal and recycling, recovery, treatment and others in terms of the potential impacts of these facilities on the environment.

Under section 30 of the RMA, regional councils are responsible for controlling the discharge of contaminants into or on to land, air or water. These responsibilities are addressed through regional planning and discharge consent requirements. Other regional council responsibilities that may be relevant to waste and recoverable materials facilities include:

- managing the adverse effects of storing, using, disposing of and transporting hazardous wastes
- the dumping of wastes from ships, aircraft and offshore installations into the coastal marine area
- the allocation and use of water.

Under section 31 of the RMA, council responsibility includes controlling the effects of land-use activities that have the potential to create adverse effects on the natural and physical resources of their district. Facilities involved in the disposal, treatment or use of waste or recoverable materials may carry this potential. Permitted, controlled, discretionary, noncomplying and prohibited activities, and their controls, are specified in district planning documents, thereby defining further land-use-related resource consent requirements for waste-related facilities.

In addition, the RMA provides for the development of national policy statements and for the setting of national environmental standards (NES). There are currently two enacted NESs that directly influence the management of waste in New Zealand:

- 1) The Resource Management (National Environmental Standards for Air Quality) Regulations 2004; this NES requires certain landfills (e.g., those with a capacity of more than 1 million tonnes of waste) to collect landfill gases and either flare them or use them as fuel for generating electricity. Unless exemption criteria are met, the NES for Air Quality also prohibits the lighting of fires and burning of wastes at landfills, the burning of tyres, bitumen burning for road maintenance, burning coated wire or oil, and operating high-temperature hazardous waste incinerators. These prohibitions aim to protect air quality.
- 2) The Resource Management (National Environmental Standards for Storing Tyres Outdoors) Regulations 2021; this NES provides nationally consistent rules for the responsible storage of tyres.

The implementation of the National Policy Statement for Freshwater Management⁴² may reduce the application rates of some organic wastes to land, which is currently a low cost management option for wastes such as effluent. This may increase the quantities of these organic materials that will be available for processing, which would then impact on the types of materials requiring processing, the technologies best suited to these material mixes, and the markets for the end product.

The RMA is currently subject to extensive reform, which will entail repealing the RMA and replacing it with three separate pieces of legislation:

- 1) National and Built Environments Act;
- 2) Spatial Planning Act; and
- 3) Climate Adaptation Act.

It is likely that this reform process will be completed before the end of 2023.

A.4.8 New Zealand Emissions Trading Scheme

The Climate Change Response Act 2002 and associated regulations is currently the Government's principal response to manage climate change. A key mechanism for this is the New Zealand Emissions Trading Scheme (NZ ETS). The NZ ETS puts a price on greenhouse gas emissions, providing an incentive for people to reduce emissions and plant forests to absorb carbon dioxide.

Certain sectors are required to acquire and surrender emission units to account for their direct greenhouse gas emissions or the emissions associated with their products. Landfills that are subject to the waste disposal levy are required to surrender emission units to cover methane emissions generated from landfill. These disposal facilities are required to report the tonnages landfilled annually to calculate emissions (this is separately to the tonnages required to be reported for the landfill levy, through the OWLS).

The NZ ETS was introduced in 2010 and, from 2013, landfills have been required to surrender 'New Zealand emissions units' or NZUs for each tonne of CO₂ (equivalent) that they produce. Until around 2017, however, the impact of the NZETS on disposal prices was limited. There were a number of reasons for this:

- The global price of carbon crashed during the GFC in 2007-8 and was slow to recover in the following years. Prior to the crash it was trading at around \$20 per tonne. The price had been as low as \$2, although in June 2015, the Government moved to no longer accept international units in NZETS and the NZU price

⁴² <https://environment.govt.nz/publications/national-policy-statement-for-freshwater-management-2020/>

increased markedly. NZUs⁴³ currently change hands for between \$70 and \$85, with prices at \$74.40 at the time of writing⁴⁴.

- The transitional provisions of the Climate Change Response Act, which were extended in 2013 but have now been reviewed, meant that landfills only had to surrender half the number of units they would be required to otherwise. These transitional provisions were removed in January 2017, effectively and immediately doubling the price per tonne impact of the ETS.
- Landfills are allowed to apply for 'a methane capture and destruction unique emissions factor (UEF)'. This means that if landfills have a gas collection system in place and flare or otherwise use the gas (and turn it from methane, CH₄ into carbon dioxide, CO₂) they can reduce their liabilities in proportion to how much gas they capture. Up to 90% capture and destruction is allowed to be claimed under the regulations, with large facilities applying for UEF's at the upper end of the range.

Taken together (a low price of carbon, only two-for-one surrender required, and methane destruction of 80-90%) the actual cost of compliance with the NZETS had been small for most landfills – particularly those that were able to claim high rates of gas capture. Disposal facilities typically imposed charges (in the order of \$5 per tonne) to their customers, but these charges mostly reflected the costs of scheme administration, compliance, and hedging against risk rather than the actual cost of carbon.

The way the scheme has been structured has also resulted in some inconsistencies in the way it is applied – for example class 2-5 landfills and closed landfills do not have any liabilities under the scheme. Further, the default waste composition (rather than a SWAP) can be used to calculate the theoretical gas production, which means landfill owners have an incentive to import biodegradable waste, which then increases gas production which can then be captured and offset against ETS liabilities.

Recently, however the scheme has had a greater impact on the cost of landfilling, and this is expected to continue in the medium term. Many small landfills which do not capture and destroy methane are now beginning to pay a more substantial cost of compliance. The ability of landfills with high rates of gas capture and destruction to buffer the impact of the ETS will mean a widening cost advantage for them relative to those without such ability. This appears to be putting further pressure on small (predominantly Council-owned) facilities and will drive further tonnage towards the large regional facilities (predominantly privately owned).

For example, with a price of carbon at \$75 per tonne, the liability for a landfill without gas capture will be \$68.25 (based on a DEF of 0.91 tonnes of CO₂e per tonne of waste), whereas for a landfill claiming 90% gas capture (the maximum allowed under the scheme), the liability will be only \$6.83. This type of price differential will mean it will

⁴³ NZUs are carbon credits that are officially accepted to offset liabilities under the NZETS

⁴⁴ According to carbon prices on www.carbonforests.co.nz and [https://www.carbonmatch.co.nz/](http://www.carbonmatch.co.nz/)

become increasingly cost competitive to transport waste larger distances to the large regional landfills.

More information is available at www.climatechange.govt.nz/emissions-trading-scheme.

A.4.9 Litter Act 1979

Under the Litter Act⁴⁵ it is an offence for any person or body corporate to deposit or leave litter:

- in or on any public place; or
- in or on any private land without the consent of its occupier.

The Act enables Council to appoint Litter Officers with powers to enforce the provisions of the legislation.

The legislative definition of the term "litter" is wide and includes 'refuse, rubbish, animal remains, glass, metal, garbage, debris, dirt, filth, rubble, ballast, stones, earth, waste matter or other thing of a like nature'.

Any person who commits an offence under the Act is liable to:

- An instant fine of \$400 imposed by the issue of an infringement notice; or a fine not exceeding \$5,000 in the case of an individual or \$20,000 for a body corporate upon conviction in a District Court.
- A term of imprisonment where the litter is of a nature that it may endanger, cause physical injury, disease or infection to any person coming into contact with it.

Under the Litter Act 1979 it is an offence for any person to deposit litter of any kind in a public place, or onto private land without the approval of the owner.

The Litter Act is enforced by territorial authorities, who have the responsibility to monitor litter dumping, act on complaints, and deal with those responsible for litter dumping. Councils reserve the right to prosecute offenders via fines and infringement notices administered by a litter control warden or officer. The maximum fines for littering are \$5,000 for a person and \$20,000 for a corporation.

Council powers under the Litter Act could be used to address illegal dumping issues that may be included in the scope of a council's waste management and minimisation plan.

The Litter Act will be reviewed alongside the Waste Minimisation Act and the current proposal appears to suggest merging the two Acts into one.

⁴⁵ <https://www.legislation.govt.nz/act/public/1979/0041/latest/DLM33082.html>

A.4.10 Health Act 1956

The Health Act 1956 places obligations on TAs to provide sanitary works for the collection and disposal of refuse, for the purpose of public health protection (Part 2 – powers and duties of local authorities, section 25). Where the Ministry of Health considers that a local authority is not taking the necessary action to meet these obligations and protect public health, it can require a local authority to do so.

It specifically identifies certain waste management practices as nuisances (S 29) and offensive trades (Third Schedule) and section 23 directs every local authority to improve, promote, and protect public health by inspecting its district regularly to identify any nuisance or condition likely to be offensive or harm human health. If any issues are noted, the local authority should take steps to rectify the situation. Improperly managed waste would be considered a nuisance. Section 34 enables councils to abate nuisances without notice and recover costs.

Section 54 places restrictions on carrying out an offensive trade and requires that the local authority and medical officer of health must give written consent and can impose conditions on the operation. The local authority's responsibilities under section 54 only applies where resource consent has not been granted under the RMA (i.e., no need to give written consent twice). Local authorities should seek to coordinate with their local public health unit where offensive trades are being established, such as refuse collection and other waste treatment practices.

The Health Act enables TAs to raise loans for certain sanitary works and/or to receive government grants and subsidies, where available.⁴⁶ It also means that where TAs incur costs in meeting their responsibilities to abate nuisances by (for example) removing refuse that is likely to harm public health, the TA can seek payment of these costs.

Health Act provisions to remove refuse by local authorities have been repealed.

A.4.11 Hazardous Substances and New Organisms Act 1996 (HSNO Act)

The HSNO Act addresses the management of substances (including their disposal) that pose a significant risk to the environment and/or human health. The Act relates to waste management primarily through controls on the import or manufacture of new hazardous materials and the handling and disposal of hazardous substances.

Depending on the amount of a hazardous substance on site, the HSNO Act sets out requirements for material storage, staff training and certification. These requirements would need to be addressed within operational and health and safety plans for waste

⁴⁶ From: MfE 2009: Waste Management and Minimisation Planning, Guidance for Territorial Authorities.

facilities. Hazardous substances commonly managed by TAs include used oil, household chemicals, asbestos, agrichemicals, LPG and batteries.

The HSNO Act provides minimum national standards that may apply to the disposal of a hazardous substance. However, under the RMA a regional council or TA may set more stringent controls relating to the use of land for storing, using, disposing of, or transporting hazardous substances.⁴⁷

A.4.12 Health and Safety at Work Act 2015⁴⁸

The new Health and Safety at Work Act, passed in September 2015 replaces the Health and Safety in Employment Act 1992. The bulk of the Act came into force from 4 April 2016.

The Health and Safety at Work Act introduces the concept of a Person Conducting a Business or Undertaking, known as a PCBU. The Council will have a role to play as a PCBU for waste services and facilities.

The primary duty of care requires all PCBUs to ensure, so far as is reasonably practicable:

- 1) the health and safety of workers employed or engaged or caused to be employed or engaged, by the PCBU or those workers who are influenced or directed by the PCBU (for example workers and contractors).
- 2) that the health and safety of other people is not put at risk from work carried out as part of the conduct of the business or undertaking (for example visitors and customers).

The PCBU's specific obligations, so far as is reasonably practicable:

- providing and maintaining a work environment, plant and systems of work that are without risks to health and safety.
- ensuring the safe use, handling and storage of plant, structures and substances
- providing adequate facilities at work for the welfare of workers, including ensuring access to those facilities.
- providing information, training, instruction or supervision necessary to protect workers and others from risks to their health and safety.
- monitoring the health of workers and the conditions at the workplace for the purpose of preventing illness or injury.

A key feature of the new legislation is that cost should no longer be a major consideration in determining the safest course of action that must be taken.

⁴⁷ From: MfE 2009: Waste Management and Minimisation Planning, Guidance for Territorial Authorities.

⁴⁸ <http://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html#DLM6564701>

WorkSafe NZ is New Zealand's workplace health and safety regulator. WorkSafe NZ will provide further guidance on the new Act after it is passed.

A.4.13 Other legislation

Other legislation that relates to waste management and/or reduction of harm, or improved resource efficiency from waste products includes:

- Biosecurity Act 1993
- Radiation Protection Act 1965
- Ozone Layer Protection Act 1996
- Agricultural Chemicals and Veterinary Medicines Act 1997.

For full text copies of the legislation listed above see www.legislation.govt.nz.

A.4.14 International commitments

New Zealand is party to international agreements that have an influence on the requirements of our domestic legislation for waste minimisation and disposal. Some key agreements are the:

- Montreal Protocol
- Basel Convention
- Stockholm Convention
- Waigani Convention
- Minamata Convention.

More information on these international agreements can be found on the Ministry's website at www.mfe.govt.nz/more/international-environmental-agreements.

A.5.0 A Circular Resource Recovery Network

Historically, our economic system has operated primarily on the basis of linear processes. This system involves extraction, processing, manufacturing, consumption and disposal (end-of-life). This system is not sustainable as it involves systematically using up non-renewable raw materials (such as minerals and fossil fuels) and degrading the natural environment, which is necessary to support life, through unsustainable agricultural and extractive activities (such as logging of native forests), and the creation of waste and pollution.

To address this, a paradigm shift is needed. This requires a change in how the economic system produces, assembles, sells, and uses products to minimise waste and maximise the value of materials in use. The circular economy is a model that enables resources to be kept in use for as long as possible, extract maximum value from them, and then recover and regenerate materials at end-of-life.

Within the context of enabling a circular economy, it is proposed to re-organise how the recovery of materials in the economy occurs by establish a **‘circular resource network’**.

The key organising principle behind the concept of a circular resource network is that the resource recovery system should be consciously designed to facilitate the circular flow of materials through the economy, by ‘completing the circle’. To date, the ‘reverse logistics’ aspect of the economy that is responsible for collecting widely dispersed and mixed materials has been a poor relation to the ‘logistics’ part of the economy that is responsible for the dispersion.

The following subsections expand on what a circular resource network concept that is designed for the circular economy could entail. The circular resource network concept borrows from and builds on the existing concept of a resource recovery network (RRN).

A.5.1 Conventional Resource Recovery Network (RRN)

The concept of a RRN is a longstanding one with various examples including Auckland Council working to develop a network of community run facilities in partnership with the Zero Waste Network⁴⁹, the development of a Māori and Pasifika Eco Park, in South Auckland⁵⁰, and Selwyn District Council recently announcing their resource recovery park concept⁵¹.

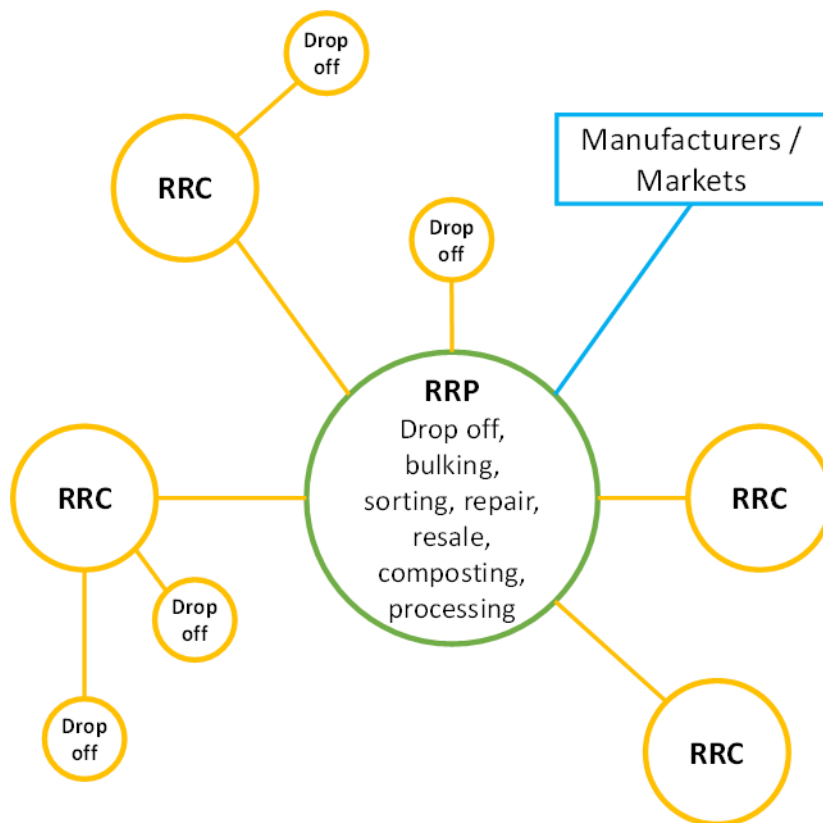
⁴⁹ <https://www.makethemostofwaste.co.nz/resource-recovery-network/>

⁵⁰ <https://www.stuff.co.nz/business/126810349/the-1-billion-plan-to-lift-mori-and-pasifika-prosperity-in-aucklands-south-and-west>

⁵¹ <https://www.selwyn.govt.nz/services/rubbish,-recycling-And-organics/recovery-park/reconnect-project>

These examples (which have different approaches) can be expanded into a nationwide state of the art network of resource recovery parks (RRPs) which consist of linked (sub) regional hubs, with smaller satellite facilities (resource recovery centres or RRCs) feeding recovered materials into the hub for processing and sale. These potentially can be further supplemented by local drop off sites that feed the satellite facilities. This concept is illustrated in the figure below.

Figure 17: Network of Resource Recovery Centres Linked to Resource Recovery Parks



The functions that are performed by the RRP consolidate a range of resource recovery functions into a single site. The intent is both to provide a 'one stop shop', but also to take advantage of economies of scale and sharing of infrastructure, services, and overheads, and optimising transport of materials to reduce costs. Furthermore, by co-locating functions there can arise the possibility of synergies between the different functions. For example, reclaimed timber and building materials can provide materials for a 'Community Shed' type operation⁵², or items salvaged from the waste stream can be sold at low cost to the public. The proposed form of a resource recovery network is

⁵² <https://menzshed.org.nz/about-us/what-is-a-shed/>

to have a series of sites with physically co-located functions, and for these to be operated by or overseen by a single entity.

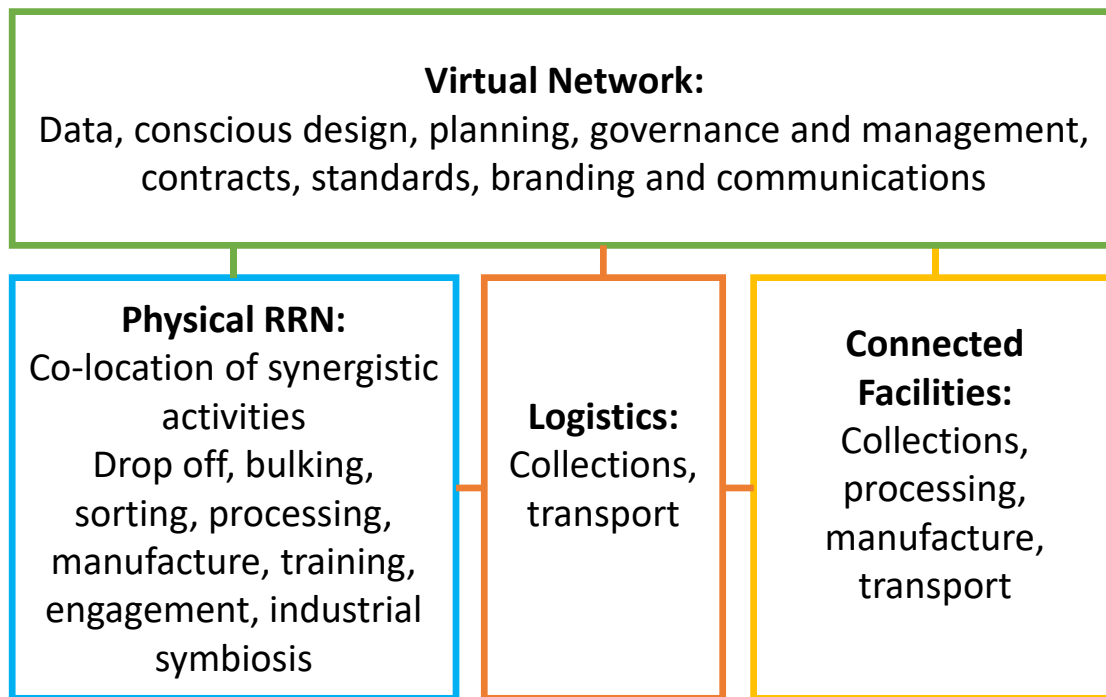
A.5.2 Expanding the Resource Recovery Network

While the conventional concept of a resource recovery network has much to recommend it, in our view there is potential to evolve it further to create the core functionality needed to enable the circular economy.

It is proposed to evolve the concept of physical co-location of synergistic activities to encompass a virtual and holistic network of sites, some co-located (where this provides efficiency gains, and is practical), but also including other sites that may be physically stand-alone sites, but which are connected to the circular resource network. The method of connection would be through supplying and receiving material, utilising network transport arrangements, operating to agreed performance standards, utilising standardised signage and specifications, providing and receiving data, and being linked through virtual directories.

A physical network of sites and logistic can be replicated virtually in an information management system. A nation-wide virtual circular resource network could, eventually, track and/or manage the flow of materials through the entire resource recovery sector in Aotearoa, and enable the optimisation of infrastructure, logistics, and services. Underpinning the virtual network is a physical network of sites and facilities that operate to agreed standards (akin to the traditional RRN concept), supplemented by standalone sites that are connected to the network. Connecting the physical network and standalone sites is a highly efficient, flexible, and low-carbon logistics network. The high-level structure of the network is illustrated in the figure below:

Figure 18: Circular Recovery Aotearoa High-Level Structure



A.5.2.1 Spatial Representation

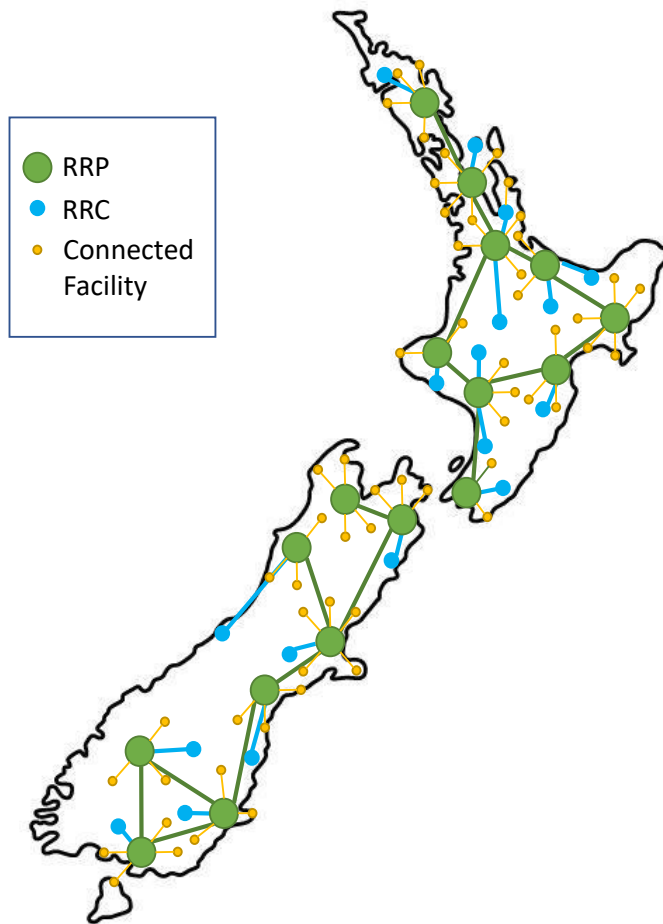
Figure 19 below shows a high-level visual representation of a national resource recovery network.

The large green dots represent regional RRs that consolidate and process material at a regional level. Depending on the material stream, materials could also be transported between the regional hubs (for example glass being consolidated in Christchurch for shipping to Auckland for manufacture). Regional hubs could also specialise in processing certain materials and swap materials accordingly.

The mid-sized blue dots represent local RRs that accept a full range of materials and send to the regional RRs for bulking (or to 'connected facilities' for local processing). Not shown are smaller drop-off sites.

The small yellow dots represent the potentially hundreds of facilities that are not co-located at an RR or RR but are linked and operate to the standards of the network. These facilities could accept materials from the RR or RR for processing, or supply materials to these sites.

Figure 19: Concept Map of Circular Resource Network

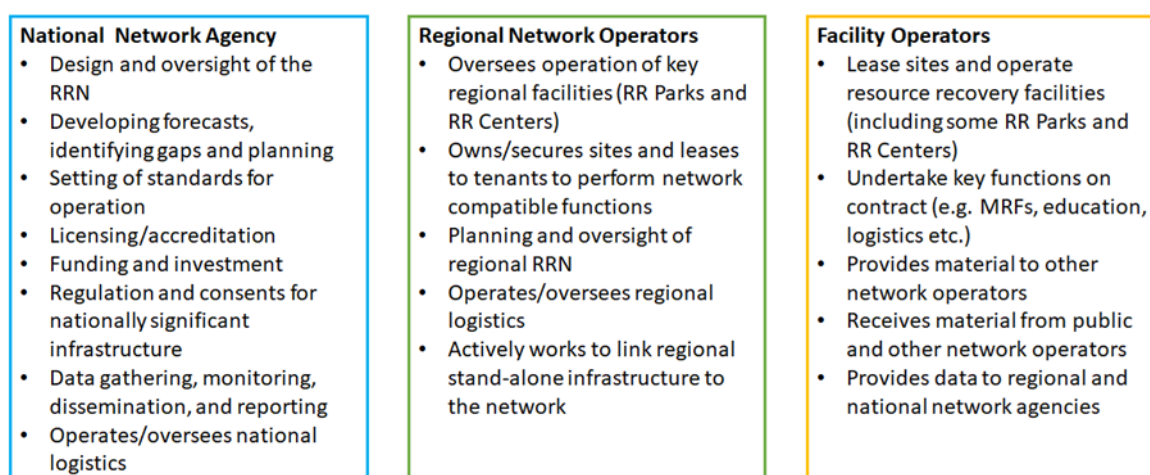


A.5.2.2 Virtual Network

The core of the concept is that the reverse logistics system is actively planned and optimised to 'close the circle' and enable a circular economy. This requires planning, analysis, and data gathering and analysis functions, alongside the active ongoing management of material flows. This is what is covered by the 'virtual network' element.

The roles of the key organisations involved in the circular resource network are shown in the figure below:

Figure 20: Key Agents and Roles in the Resource Recovery Network



A digital model could be developed of the key material flows within the resource recovery sector (ideally this would ultimately encompass a mass balance of materials through the economy, although this is likely to be more difficult to achieve and therefore a more long-term aspiration).

By digitally mapping material flows nationally, across both core facilities and connected facilities, potential gaps and issues could be quickly identified and planning undertaken to ensure the system remains optimised and is resilient and adaptive in the face of change.

The digital model would include current material flows and allow for projections and modelling of new facilities, changes to material types and quantities, logistics etc. This would enable the potential impact of new facilities and options to be investigated before implementation.

The core of the circular resource network is the establishment of a set of standards of operation that all facilities that form part of the circular resource network operate to. These standards would apply to both operations co-located at an RRP or RRC, as well as connected facilities. In this regard what is proposed is similar to a franchise model: as well as designing the overall system the government (or its agents) set the basis by which the circular resource network would function.

A.5.2.3 Physical RRN – Structure

The ‘Physical RRN’ is the aspect of the system that is most recognisable interface of the network. A national network could be made up of regional nodes (circular resource networks) that are linked but that can operate as independent regional entities.⁵³ This

⁵³ For the purposes of this exercise, it should be assumed that ‘regional’ broadly corresponds to current regional council and unitary council boundaries.

would enable planning with a national perspective (as noted above) but empower the governance and management at a regional level to enable agile response to regional and local requirements. It should be noted, however, that there could be a number of different models.

The role at a regional level is primarily:

- Site ownership, management, development, and leasing.
- Operating region-wide logistics to consolidate materials from RRCs and Connected Facilities at the regional RRP for bulking, sorting, processing and bulk transport or local manufacture.
- Overseeing and applying the operating standards for the network.
- Advocating for the development of the network and working with operators and stakeholders to facilitate its continued development.
- Promotion and communication with users.

Regional networks would operate to national standards that include the following (as noted above):

- Branding and communications.
- Core materials accepted and material acceptance criteria.
- Output material quality standards and contamination levels (referencing existing market specifications or official standards where appropriate).
- Customer service levels.
- Appropriate employment conditions.
- Standard contracts and agreements for supply of services, provision or sale of materials, leases etc.
- Access to and participation in online marketplaces for recovered materials generated by network participants.

The regional network operators in turn would be responsible for applying and enforcing these standards for local and connected facilities.

A.5.2.4 RRP – Regional Hubs

The heart of a regional network consists of one or two large RRPs, where a range of key functions are co-located. The purpose of the RRP is to provide a 'hub' for the efficient regional consolidation of a wide range of materials collected at the RRC and Connected Facilities, as well as those that may be collected at the RRP itself.

The core of the concept is to have regional consolidation of materials and provide a hub for the regional network. In addition, these sites could provide a 'flagship' centre with a full range of services for drop-off and community engagement etc.

The RRP all can have different mixes of facilities depending on local requirements. The logistics and flagship public facing operations could be co-located or at different sites depending on local situations.

Typical facilities may include:

- Material recovery facilities for sorting of collected comingled materials.
- Anaerobic digestion facilities to process putrescible wastes and generate biogas that is used to fuel the regional logistics collection fleet.
- Logistics sorting centre for managing the inputs and outputs of a range of facilities.
- Construction and demolition waste sorting facility.
- Wash plants and fleet management facilities for reusable containers.
- Regional consolidation and logistics for a range of product stewardship schemes such as:
 - E-waste dismantling and processing operations.
 - Used large battery (EV and stationary storage) assessment and consolidation centres.
 - Farm plastics and agrichemical containers.
 - Tyres.
 - Mattresses.
- Education centre.
- Reuse stores/mall.
- Food rescue.
- Manufacturing businesses utilising recovered materials. In some instances, these businesses are co-located to utilise others' discarded materials and surplus process heat, with ongoing work to develop industrial symbiosis models.
- Research on material reuse/recovery.
- Drop off facilities for a full range of materials.

A.5.2.5 Local RR Centres

While the RRP are the hub of the regional networks, the RRC form the primary nodes where the majority of material is dropped off and consolidated locally. Many RRCs will start off as local transfer station sites that are upgraded and re-purposed to have a predominant focus on resource recovery. The RRCs are the local centre for community activity, with many run by community enterprises or iwi, and serve to engage, educate and empower the local communities to not only recover materials but extract and apply the value of those materials for community benefit.

There are a range of different services and facilities at each site, but a set of core facilities could include the following:

- Drop off facilities for a standard range of materials (nominally as follows):
 - Cardboard
 - Metals
 - Paper
 - Glass
 - Plastics 1,2,5
 - Shrink-wrap
 - Garden waste
 - DIY construction and demolition waste
- Dropoff/consolidation sites for current and future product stewardship schemes, for example:
 - Reusable containers
 - Single use containers
 - E-waste and batteries
 - Farm plastics and chemical containers
 - Tyres
 - Mattresses
 - Textiles
 - Paint and household chemicals
- Reuse drop off, refurbishment and resale (furniture, household items, furnishings and clothing, toys, books, tools).

Optional services and facilities could include:

- Café
- Construction and bulky materials sales yard
- Education, training
- Workshops/refurbishment
- Food rescue
- Cooking oil – biodiesel/soap manufacture
- Reusable nappies
- Mattress recycling
- Business incubator space

A.5.2.6 Logistics

A core feature of the concept is the establishment of an efficient logistics network that is able to consolidate and transport materials as efficiently as possible, including utilising

back-loading, bulk transport, and using flexible methodologies to facilitate bulk transport of smaller volume materials (for example, modular bins transported on side loaders).

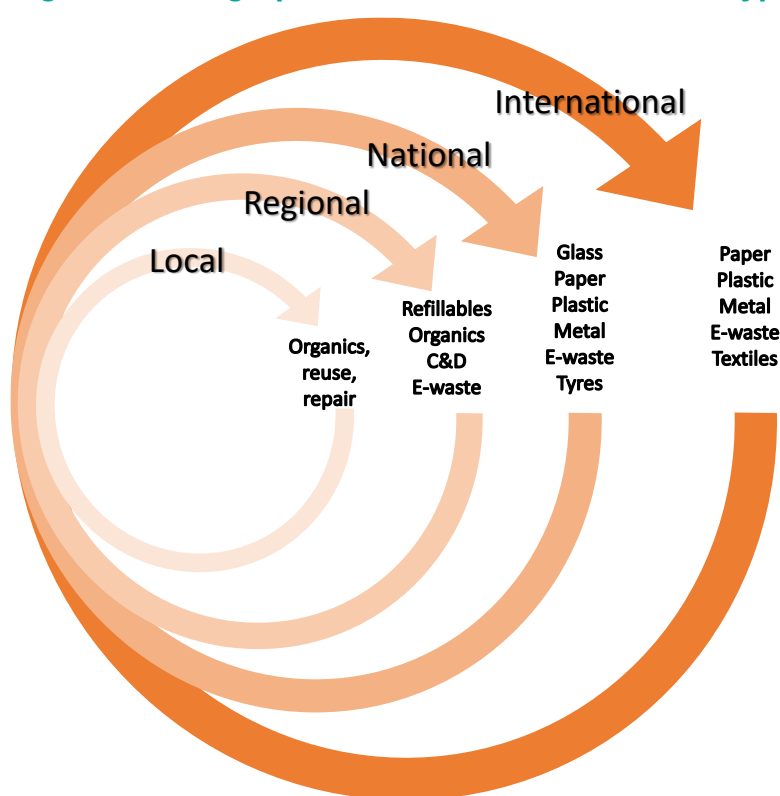
Vehicles utilised by the network could take advantage of low-carbon and waste-based technologies to minimise the carbon footprint of materials managed by the network. For example:

- Vehicles could be powered by gas/energy generated from anaerobic digestion of organic waste.
- Battery electric vehicles could utilise second-life batteries or charging infrastructure built using second life batteries.
- Bulk transport using rail (ideally electrified).

Materials are dealt with in the most appropriate manner through the network with some materials managed locally or regionally, and other materials utilising the logistics capabilities of the network to be delivered to national end uses at low cost.

The figure below illustrates how certain materials are likely to be managed locally, regionally, nationally, or internationally.

Figure 21:Geographical Circulation of Material Types



In the above indicative representation, organics (such as garden waste), reusables, and repairable items are likely to be utilised in local communities; refillables, organics that require more capital intensive processes (such as food waste or sludges), construction and demolition waste, and e-waste dismantling are likely to be undertaken on a regional level; processing and manufacture of products from glass, paper, plastic, metal, e-waste,

and tyres are likely to be processed at national or sub-national scale facilities. Finally, there will be a range of materials that are sold into international commodity markets. These are likely to include paper, plastics, metals, e-waste, and textiles.

The above is intended purely for the purposes of illustration – as markets, material types, and processing technologies evolve these circles of re-integration into the economy are likely to change. The key point is that the network will involve a redistribution of different products and materials to different points and designing this redistribution to be as efficient and effective as possible will be critical to the functioning of the circular economy.

Local Logistics

A key part of the concept is to facilitate the ability to capture the widest possible range of materials by taking advantage of economies of scale to capture economic quantities. This can be achieved through a standardised modular approach to material separation and collection. An example of this is the system deployed in Upper Austria, which utilised 1 cubic metre stackable bins that can be moved using forklifts and transported on curtainsider trucks (see below).

Figure 22: Standardised Bins Being Loaded onto Curtainsider Truck



The system collects 80 different types of separated material. The possible downside of it taking time to gather economic quantities of less common material types is minimised as

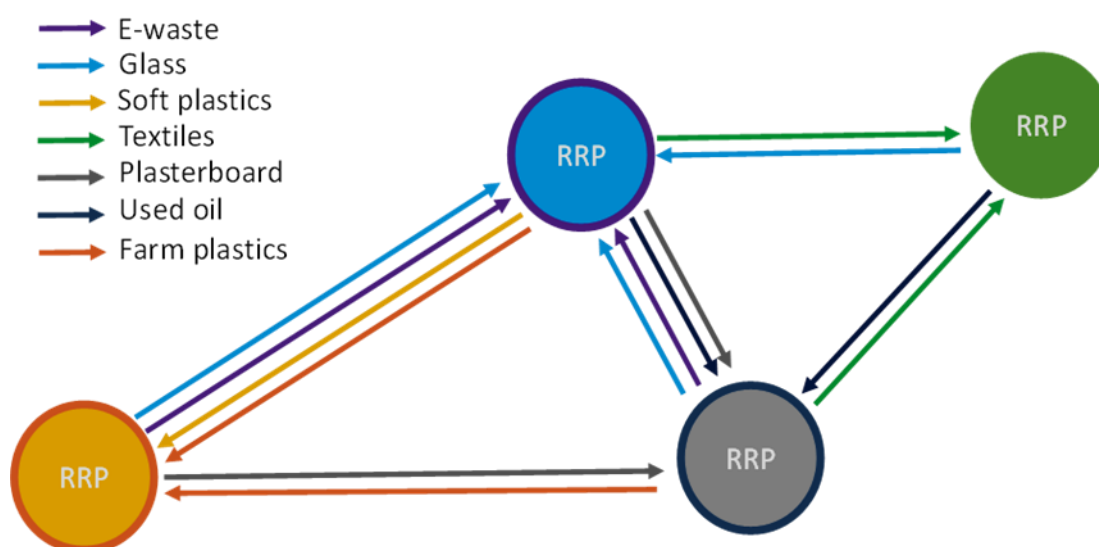
economic quantities can be achieved across the whole region, and the systems components are low cost and have proven efficiency.

The use of the same bins the same types of materials and common signage provides standardisation across the network, despite a wide range of operators being responsible for the individual resource recovery sites.

Inter-Regional Logistics

There is also potential to optimise the flows of materials between regional/sub regional hubs. For example, each regional hub could specialise in processing of one or more material types, with flows of materials then able to be balanced between sites, optimising logistics through backloading, as well as creating economies of scale. A hypothetical illustration is provided in the figure below.

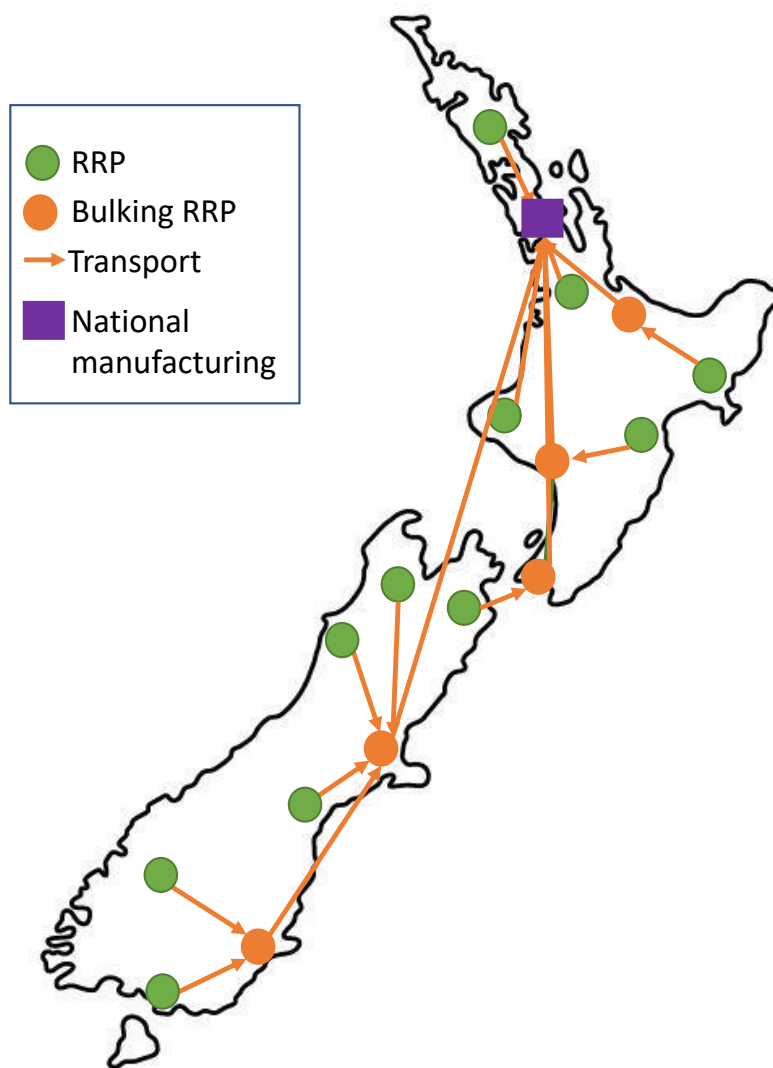
Figure 23: Inter-Regional Logistics Model



In the above hypothetical illustration, the blue RRP processes e-waste and glass from other proximate RRP, while sending other materials such as soft plastics, farm plastics, textiles, plasterboard and used oil to other proximate RRP. This is repeated across the RRP, so that the quantities and movements of material are approximately balanced. The location of specialised processing and balancing of logistics would be part of the design and planning role of the national level 'virtual network'.

National Logistics

In addition to the local and inter-regional flows of materials, a range of materials handled by the network would need to go to national scale processing/manufacturing facilities (e.g. glass, paper, plastics). Logistics across the network could be optimised to take advantage of bulk transport through strategic bulking points, and there is even the possibility of constructing new national scale facilities in locations to balance national materials flows. The figure below illustrates how materials could be consolidated through regional networks to key bulking points for long-haul transport.

Figure 24: National Logistics Illustration

A.5.2.7 The Role of Local/Regional Government

Local government has historically had a major role in waste management planning and service delivery, and this is likely and desirable to continue. Local government own a significant proportion of the existing transfer station sites, and well as processing infrastructure sites and are familiar with local circumstances. Many councils are already in the process of developing resource recovery parks or local networks.

These existing and planned sites could form a starting point for the physical circular resource network. It would primarily be a matter of collaborating to establish consistency and linkages across the existing and planned sites as well as promoting the development of new sites by local government.

In addition, there may be a vital role for regional entities. One of the key issues identified in the stocktake work was a lack of appropriate delivery structures for regional level infrastructure. Some facilities require a regional level approach to achieve appropriate economies of scale (for example processing of food waste, MRFs, regional bulking for key materials such as glass etc.).

The proposed circular resource network concept is centred around a regional approach, with one or two regional scale RRs that form the core hubs for collecting and consolidating material from the RRC sites, and undertaking processing and, potentially, manufacture. Key aspects of the roles for regional and local government could include:

- Service operation/contracting
- Local and regional expertise and coordination
- Local infrastructure investment and operation
- Identification and provision of appropriate sites
- Local consents monitoring, and enforcement
- Gathering and analysis of data

A.5.2.8 The Role of Iwi

Iwi also have an important role to play in the co-development of the circular resource network. The concept of resource recovery is aligned with the te ao Māori principle of kaitiakitanga, and the Para Kore programme is already in place in 476 marae across the country⁵⁴.

In addition to performing a similar role to the private and community sectors in service delivery, iwi have a role as kaitiaki of the land and people, and where resources are available, iwi can contribute financial investment and sites to the network and provide

⁵⁴ <https://www.parakore.maori.nz/our-story/>

leadership in the development of the network. Key aspects of the roles for iwi could include:

- Service operations
- Infrastructure investment and operation
- Guardians / developers of RR Park and RR Centre sites
- Recovering value from materials
- Ownership and sale of recovered materials
- Utilising recovered value to leverage other community outcomes (e.g. employment, training, rehabilitation)

A.5.2.9 The Role of Private Sector Operators

Private sector operators currently manage the vast majority of waste materials recovered and disposed of in NZ, whether via private commercial arrangements or under contract to the public sector, and this would be expected to continue under the proposed model.

The expectation is that, for the operation of the physical circular resource network, the public sector would generally own the land and generic infrastructure (such as buildings or, concrete pads, roading etc.) but would lease the sites or contract out for the delivery and operation of the circular resource network sites (such as separation of materials, composting, processing, manufacture).

Sites could have a range of private and community sector operators involved (see below). Key aspects of the roles for private sector operators could include:

- Service operations
- Infrastructure investment and operation (either privately or under contract)
- Recovering value from materials (including repair and reuse)
- Ownership and sale of recovered materials

A.5.2.10 The Role of the Community Sector

Although the community sector is a minor player in terms of the total quantity of waste materials managed in New Zealand, they have had a significant role in the industry in terms of community engagement, innovating around recovery, and extracting value from waste materials to apply to social and community outcomes.

The community sector role can potentially be further embedded and given added importance in the delivery of the circular resource network concept. Community groups could not only provide services such as reuse and repair across multiple sites but could

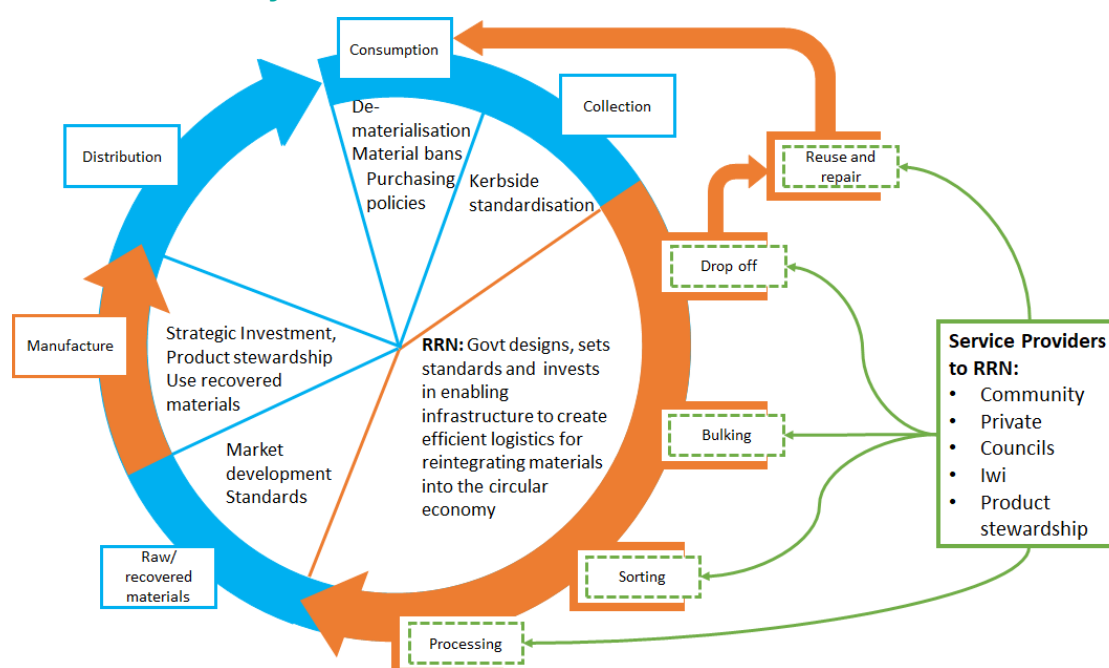
also be empowered to deliver all services on sites (as has been demonstrated in Auckland). Key aspects of the roles for community sector operators could include:

- Service operations
- Infrastructure operation
- Recovering value from materials (including repair and reuse)
- Ownership and sale of recovered materials
- Utilising recovered value to leverage other community outcomes (e.g. employment, training, rehabilitation)

A.5.2.11 Summary

The figure below illustrates how the roles and functions of a national resource recovery network could integrate to provide key reverse logistics functions in the circular economy. The orange elements of the circle are the parts that form the circular resource network.

Figure 25: Roles and Functions of a Circular Recovery Network in the Circular Economy



In the above chart material flows around in a clockwise direction. The arrows represent the material flows. The boxes indicate the key steps within the value chain. The graphic shows how different providers to the can deliver all of the key functions, but within an overall connected framework (that is established and overseen by central/regional/local government).

A.5.3 Benefits of Circular Resource Network Approach

A Circular Resource Network approach would have a range of benefits. These include:

- **Consistent with the Waste Strategy.** At its core the approach is about enabling the circular economy by building out the infrastructure required for the circular flow of materials in the economy. The circular resource network concept synthesises this into a practical approach with wide ranging applications.
- **A practical, easily articulated, investment strategy.** Because the core component of the circular resource network concept is an arrangement of physical infrastructure it is intuitively easy to communicate the intent.
- **Improved efficiency and value.** By focusing on how value can be preserved and enhanced through the resource recovery value chain rather than purely on environmental and social outcomes, it is possible to unlock the potential value of recovered materials and unleash the innovative power of the sector to achieve environmental and social outcomes.
- **Future flexibility.** Flows of materials will change over time. By government investing in the skeleton structures that enable functions, then investment is not locked into a time-limited solution. As materials, markets and processes change over time existing

infrastructure and governance can be efficiently and nationally adapted for the new functions.

- **Data harvesting.** The development of the digital model circular resource network will enable an unprecedented level of insight into recovered material flows and enable effective and intelligent planning and nimble responses by the sector to evolving situations.
- **Baskets of materials.** By co-locating and handling of a range of material and product types at single locations this enables efficiencies through the sharing of support structures and cross subsidisation, and hence the viable recovery of a wider range of materials.
- **Builds on existing infrastructure.** As noted, existing infrastructure (such as existing and planned RR Parks, and transfer stations) would form the foundation of the circular resource network, and these could be progressively integrated.
- **Provides valuable roles for all stakeholders.** The circular resource network will be significant in scale and scope, and it will require the input, collaboration, innovation, and power of all parts of the sector to fully realise its' potential.
- **'No regrets' approach.** The circular resource network concept proposed here is potentially far reaching in its scope and what it could eventually encompass. However, whatever level the concept is implemented to, it will still have multiple benefits. At a minimum it would result in the creation of a number of RR Parks or regional circular resource networks, which will still be positive outcomes.
- **Scalability.** The network can be "right"-sized in a flexible manner with the ability to effectively respond to changing circumstances.

Waste Management & Minimisation Plan (WMMP) 2026–2032 – Communications Action Plan

Project Background

Waimakariri District Council is consulting on its draft Waste Management and Minimisation Plan (WMMP) 2026–2032.

The plan sets out how the district will:

- Reduce waste to landfill
- Increase diversion and resource recovery
- Transition toward a circular economy

While good progress has been made, performance is starting to plateau, and nearly half of landfill waste could still be diverted, highlighting the need for stronger community action.

The consultation will seek feedback on:

- Proposed service changes (kerbside expansion, bin options, service models)
- Behaviour changes and education approaches
- Infrastructure investment and future planning

Communications Approach

IAP2 level: CONSULT (with elements of INFORM and INVOLVE). Public Participation Goal
To ensure the community understands:

- Why change is needed
- What is being proposed
- How decisions may affect them

...and to actively gather informed feedback that shapes the final WMMP.

Communications Objectives

- Drive participation across diverse audiences (urban, rural, business)
- Build an understanding of the draft WMMP, why it's important and why we need residents' feedback
- Build awareness and understanding of waste challenges and progress
- Support informed consultation participation
- Simplify complex concepts (circular economy, waste hierarchy)
- Reinforce shared responsibility and local action

Audience and Stakeholders

Primary audiences

- Householders (urban and rural)
- Kerbside service users
- Non-users / private waste users

Secondary audiences

- Businesses (retail, construction, industrial)
- Rural communities
- Community groups and environmental organisations

Internal

- Solid Waste / Infrastructure teams
- Communications & Engagement
- Customer Services
- Elected Members

External stakeholders

- Mana whenua
- Industry groups
- Waste sector providers
- Schools and education providers
- Media

Key Messages

Core narrative

- Waimakariri has made strong progress reducing waste but improvement is slowing
- Nearly half of what we send to landfill could be reused, recycled, or composted
- We need to work together as a community to reduce waste further

Consultation messages

- We're seeking your feedback on future waste services and investments
- Proposed changes could affect what services you receive and how you use them
- Your input will help shape the final plan

Behavioural messages

- Small changes at home make a big difference
- Use the right bin for the right materials
- Reduce waste where possible

Vision messages

- Working towards a low-waste, low-emissions district

- Moving toward a circular economy
- Protecting our environment and future

Engagement

We will be seeking comment on the direction of the updated plan overall. We will specifically seek comment on proposed new actions (detailed below).

Engagement will be open for four weeks with an option for residents to choose to present to a hearings panel.

Proposed New Actions

Kerbside Collections (consider and consult on):

- Extending the coverage of household kerbside recycling, organics and rubbish collection services to additional areas such as Ashley, Fernside, Clarkville, and the wider Swannanoa, Mandeville and Ohoka community.
- Whether we continue to collect rubbish bags at kerbside or switch to bins only, and whether to offer a larger bin option.
- Whether we move to a mandatory or an “Opt-Out” collection service for rubbish and organics.

Education and Engagement:

- Identify opportunities for consistent, targeted, direct engagement to improve participation in and compliance with kerbside collection services.
- Seek wider engagement with construction and demolition, health and retail sectors, and with industry groups.

Regulation and Monitoring:

- Review bylaw provisions and expand where necessary, e.g. additional regulation of the private waste sector, event waste management, construction site waste management, and material bans.
- Increase monitoring and surveying of rural wastes going to landfill, e.g. quantities and material types.
- Increase monitoring of solid waste handling facilities.

Infrastructure:

- Explore opportunities for an expanded resource recovery park-style facility for Waimakariri, either in addition to or instead of existing resource recovery park/transfer station provision, to ensure the district’s future needs are met.
- Explore regional opportunities to provide or support infrastructure for construction and demolition waste diversion, deconstruction, and other difficult materials.

Leadership and Management:

- Support community organisations undertaking activities that support the Waste Management and Minimisation Plan by providing a community grant pool or fund.
- Support regional and national projects improving waste management planning in disaster situations.
- Support national sector organisations in lobbying for better vocational training and to encourage new recruits to the sector.

Commented [AG1]: Are there suburb names you could put here? Or is this extending into rural areas further?

Commented [KW1R2]: We expand in line with subdivisions around urban areas, but are looking again at the areas we don’t collect from, and maybe providing organics to Mandeville as well as expanding the area.

Consultation questions – grouped under key topics

Kerbside Collections:

1. Do you support expanding kerbside collection services to more properties in Swannanoa, Mandeville and Ohoka? Why or why not?
2. Do you support extending kerbside collection services to additional areas such as Ashley, Fernside, Clarkville? Why or why not?
3. If you live in one of these areas which are outside our current collection, would you likely to use Council's kerbside collection service? Yes / No.
4. Do you support Council offering their organics collection services into the Swannanoa, Mandeville and Ohoka rural residential areas? Why or why not?
5. Should Council remove rubbish bags and move to a bin-only system for kerbside collection? Yes / No. Why or why not?
6. If your current bin size doesn't meet your needs, what challenges are you experiencing?
7. If larger rubbish bins were available for an additional cost, would you:
 - Stay with the 140L bin
 - Choose a larger bin
 - Not sure
8. Currently we offer all eligible households an "Opt-In" service for kerbside rubbish and organics bin collections. Do you think these services should:
 - Stay being optional, where owners of properties inside the collection areas can opt in or opt out, and choose the sizes of their rubbish and organics bins
 - Be mandatory, where all new properties inside the collection areas will be provided a standard set of 140 litre rubbish and organics bins, but owners will have an option to receive different bin sizes or to opt out of one or both services
 - Not sure
9. How confident are you in sorting your waste into the right bins (rubbish, recycling, organics):
 - Very confident
 - Somewhat confident
 - Not very confident
 - Not at all confident

Education and Engagement:

10. Where do you usually get information about waste and recycling? (e.g. Council website, social media, printed guides, word of mouth).

11. What would encourage you to reduce waste or recycle more?

Infrastructure:

12. Have you experienced any issues when using the Southbrook Resource Recovery Park or Oxford transfer station?

- Yes
- No

If yes, which site did you have issues at, and what were they?

13. Would you support Council expanding and upgrading their transfer stations if it meant better services?

Yes / No. Why or why not?

14. Would you support Council looking to future-proof the district's waste handling and diversion facilities for the next 50 to 100 years?

Yes / No. Why or why not?

Regulation and Monitoring:

15. Do you have any suggestions for improving waste rules, monitoring, or enforcement in Waimakariri?

Leadership and Management

16. What ideas, initiatives, or opportunities do you think Council could support to help reduce waste in Waimakariri?

Communications Deliverables (How we will engage)

Product	Notes	Who	When	Cost
Consultation webpage (Let's Talk)	Hub for all info, documents, submission form	Comms	Launch	In-house
Email or letter to those with proposed extended kerbside area	Note the wider goals on the plan and mention if supported detailed costs will be in the LTP	Comms	Launch	In-house
Summary document / visual explainer	Simplified WMMP overview	Comms	Launch	In-house

Flyers to customers at transfer stations	Messaging targeted around upgrading transfer station	Comms	Launch	In-house
Posters up at Council facilities and service centres	QR to Let's Talk page	Comms	Launch	In-house
Public notice	Formal consultation notification	Comms	Start	In-house
Media release	Launch + key milestones	Comms	Launch + mid-point	In-house
Social media campaign	Short videos / reels that explain key issues (what goes to landfill, why change)	Comms	Ongoing	In-house
Stakeholder briefings	Targeted sessions (industry, iwi, groups)	Project team	Early phase	In-house
Email newsletters	Promote consultation	Comms	Key moments	In-house
Customer Services briefing	Equip staff for queries	Comms	Pre-launch	In-house

Let's Talk about Managing and Minimising our Waste

We're planning for the future of waste in our district – and we want your input.

All Councils are legally required to have a Waste Management and Minimisation Plan that aligns with national goals to reduce waste and improve management. Our last Waste Management and Minimisation Plan was adopted in 2018, and we have made strong progress reducing waste since then, but improvement has recently slowed.

Globally there is a shift towards a different approach, known as the 'circular economy'. This approach focuses on managing waste materials in a circular system as much as possible, with landfill being the last resort. This approach is reflected in our draft Waste Management and Minimisation Plan (2026–2032), which sets out how we reduce waste, improve recycling, and move towards a more sustainable, low-waste future.

Kerbside collections are available to about 21,300 properties inside the targeted collection areas: that's 68% of the rateable properties in Waimakariri. All those properties are rated for a recycling service, but our rubbish and organics bin collection services operate on an "opt in" basis. Our last waste audit identified that over half of the waste we collect from kerbside rubbish bins and bags could have been composted or recycled.

The waste auditors have advised us that nearly half of what we send to landfill from Southbrook could have been reused, recycled or composted. The waste coming into Southbrook transfer station comes from a range of sources, less than one third of that is from Council's kerbside service.

We need to work together as a community to further reduce landfilled waste.

Our vision is for Waimakariri to become a low-waste, low-emissions district that values resources and reduces environmental harm.

Image

Here's what we're proposing

Future changes to our kerbside collection service

Of the 21,300 properties inside our targeted collection areas, 85% have opted into the Council's bin service, with the rest using Council bags, private collectors or manage waste disposal themselves. Around 76% of the 20,253 properties eligible for the 'urban' style 3-bin collection service now use a Council organics bin. And as mentioned above, on average there is still a lot of compostable and recyclable waste going into people's bins and bags. We're looking at how we might cost-effectively increase the reach of Council collection services to more properties, given that only 68% of the rateable properties in Waimakariri have access to our services.

Expanding and Extending Kerbside Collections

In response to requests from residents in these areas, we're exploring expanding our kerbside collection services to more properties in the "limited service" collection area of Swannanoa, Mandeville and Ohoka; and extending kerbside collection service to some areas that are close to our collection areas and routes, including Ashley and Loburn Lea, Clarkville, and the Fernside 'triangle'. This isn't likely to result in an increase in our forecast targeted kerbside collection rates.

Council currently only offers recycling and rubbish bin collections services to the "limited service" collection area of Ohoka, Mandeville and Swannanoa. We're looking at offering organics collections into this area, again in response to requests that we've received, but we would only do this if the uptake of bins makes this cost-effective to provide, so that this new service doesn't impact on forecast targeted organics rates.

Do we offer a 240-litre rubbish bin?

We have received feedback that the 140-litre bins are not large enough for some families and businesses and are considering whether we offer a 240-litre rubbish bin for those properties that need more capacity. Disposal costs would be higher as they hold more waste than 140-litre bins do, and it could cost more for the larger bins to be collected, but until we understand the demand we can't confirm what the targeted rates are likely to be. We've calculated they may be somewhere between \$380 to \$390 per year.

Do We Stop Providing Rubbish Bag Collections?

We are considering whether to continue selling and collecting Council-branded rubbish bags, or if we change to providing bin-only rubbish collections. Council sets the bag retail prices to recover the bag manufacturing costs, managing the supply and delivery contract, and the collection and rubbish disposal costs.

The number of bags being set out for collection have been dropping off as more people start using kerbside rubbish bins. The bag collection truck must still cover the same distance to collect fewer bags so the per-bag collection costs will continue to increase; it already costs more to collect bags than bins, and providing this service is becoming less

cost-effective for Council. Our options are to further increase bag charges to an estimated \$4.80-\$5.00 to recover the higher per-bag collection costs, or to stop providing rubbish bag collections at kerbside. The latter would require all properties currently using bags to take up a rubbish bin collection service from Council or another service provider.

Stopping the bag collection service would eliminate the health & safety risks for everyone who handles the bags, and the nuisance factor from bags being ripped open by animals. It would reduce incidences of people putting out non-Council bags at their kerbside, and of people from outside the collection area putting bags in front of other residents' houses. We would stop accepting WDC-branded bags at no charge at our solid waste facilities, which would impact on many customers, and may cause more traffic coming past the kiosk with a minimum load.

Stay Opt-In for Rubbish and Organics, or Change to Opt-Out?

We are also considering whether to change from the current "opt-in" to a mandatory "opt-out" system for rubbish and organics collections. This would align Waimakariri's approach with other Councils in Canterbury that provide a 3-bin collection service. An Opt-Out system would mean all new residential and commercial properties inside the collection areas would be automatically allocated a standard bin-set (240 litre recycling, 140 litre organics and 140 litre rubbish) when property owners request a recycling bin; however they would still have the option to select different sized bins depending on their waste management needs, or to opt out of having a rubbish and/or organics bin.

Most owners of new properties take up the 3-bin service, but some are unaware that they can ask for other bins when they order the recycling bin. This change wouldn't impact on properties that currently don't have a rubbish and /or organics bin – they can still opt into rubbish or organics collection services in the future.

Divert More Waste from Landfill

We want to find better ways to reach our residents, to encourage more households use their bins correctly and so they get the most out of our kerbside services. We also want to work more closely with local businesses and industries like construction, healthcare, commercial and retail, to improve how waste is managed and reduced right across the district.

Changes to Solid Waste Facilities (Transfer Stations and Resource Recovery Park)

Although Waimakariri's waste infrastructure is relatively strong, our transfer stations at Southbrook and Oxford need upgrading to meet current and future demands. Both facilities were built in 1998, and Southbrook was last upgraded in 2011 when the recycling area and shop were built. The district's population and waste quantities have continued to grow, and both sites have space for some level of upgrades, but this may only cater for another 20 to 25 years of population growth.

Council wants to future proof our district's waste diversion and disposal facilities for the next 50 to 100 years. We're exploring options for a larger resource recovery park-style facility, either alongside or replacing existing sites. An improved facility could support diversion of builders' waste and provide space for education and repair workshops on top of expanded recycling, re-use, re-sale and disposal facilities.

Upgrading and expanding Southbrook while keeping the site open and providing the expected levels of service for customers will be challenging for Council, customers and operators.

Oxford only operates two half-days per week, which limits when residents and businesses can access recycling, greenwaste, hazardous waste and rubbish disposal facilities. We receive regular feedback about these limited hours in our Customer Satisfaction Surveys.

We also propose working with other Councils to support investigations into regional solutions for construction and demolition waste, glass bottles and jars, and other hard-to-manage materials.

Reviewing our Solid Waste Bylaw

We will be reviewing and strengthening our bylaw provisions, expanding them where needed, e.g. to better regulate event waste management, construction site waste, the private waste sector, and allowing for potential material bans. We also want to improve our understanding of waste flows by strengthening oversight of solid waste handling facilities, including quantities and material types, and by increasing monitoring of rural waste going to landfill, as our Waste Assessment identified these as knowledge gaps which we need to address.

Support local, as well as regional and national, waste minimisation initiatives

We want to support community organisations delivering initiatives aligned with the Waste Management and Minimisation Plan, including providing a community grant pool or fund to help kick-start projects and initiatives.

So, how does this all sound?

Please take some time to answer our questions on the following pages. Your input will help shape the final plan.

You can also find the draft Waste Management and Minimisation Plan 2026-2032 as well as our online survey at waimakariri.govt.nz/letstalk

Let us know if you'd like to speak to your submission. Hearings will take place on **XX**.

Kerbside Collections:

Expanding Existing and New Collection Areas

1. Do you support expanding kerbside collection services to more properties in Swannanoa, Mandeville and Ohoka? Yes / No. Why or why not?
2. Do you support extending kerbside collection services to additional areas such as Ashley, Fernside, Clarkville? Yes / No. Why or why not?
3. If you live in one of these areas that don't receive our current kerbside collection, would you want to use Council's collection service? Yes / No.
4. If you live in the Swannanoa, Mandeville and Ohoka kerbside collection area, would you want to use Council's organics collection services? Yes / No
5. Should Council stop providing and collecting WDC branded rubbish bags and move to a bin-only system for kerbside collection? Yes / No. Why or why not?
6. Do you support Council ceasing to accept WDC branded rubbish bags at our transfer stations? Yes / No. Why or why not?
7. If your current rubbish bin size doesn't meet your needs, what challenges are you experiencing?
8. If larger rubbish bins were available for an additional cost, would you:
 - a) Stay with the 140 litre bin
 - b) Choose a 240 litre bin
 - c) Not sure
9. Currently we offer all eligible households an "Opt-In" service for kerbside rubbish and organics bin collections. Do you think these services should:
 - a) Stay being an Opt-In service: owners of properties inside the collection areas can opt in with a choice of bin sizes for rubbish and organics, and opt out if their situation changes.
 - b) Change to an Opt-Out service: all new properties inside the collection areas will be automatically provided a standard set of 140 litre rubbish and organics bins when the owner orders a recycling bin, but owners will still have the option to choose different bin sizes or to opt out of one or both services
 - c) Not sure

Education and Engagement:

10. How confident are you in sorting your waste into the right bins (rubbish, recycling, organics):
 - a) Very confident
 - b) Somewhat confident
 - c) Not very confident
 - d) Not at all confident
11. Where do you usually get information about waste and recycling? (e.g. Council website, social media, printed guides, word of mouth).
12. What kind of approach would best suit your household, business or organisation to help you reduce your waste?

Changes to Solid Waste Facilities:

13. How has your experience been when you use the Southbrook Resource Recovery Park or Oxford transfer station?
 - a) Very good
 - b) Good
 - c) So-so
 - d) Poor
 - e) Very poor

Please expand on which facility you use, and what would improve your experience?

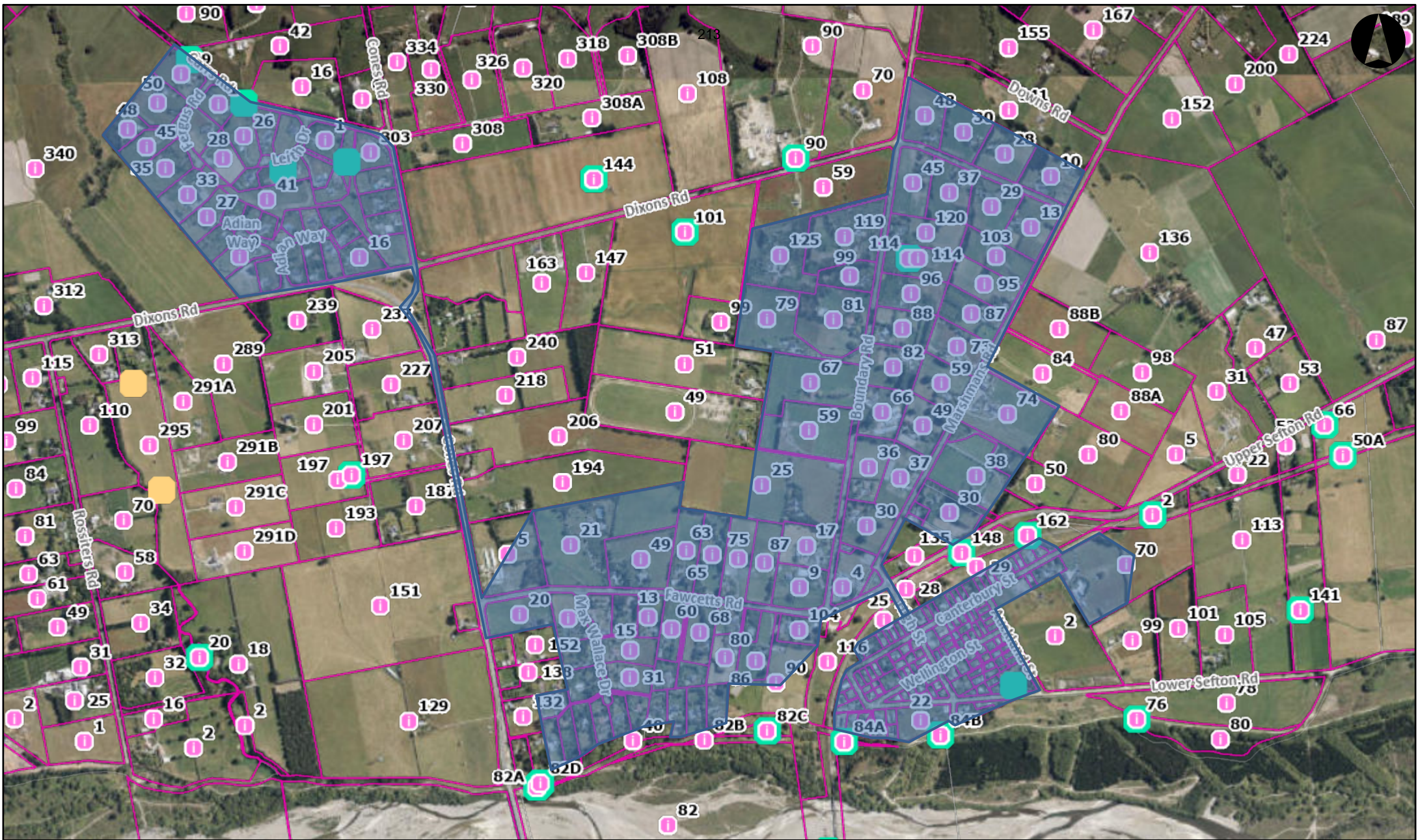
14. Would you support Council extending Oxford transfer station's operating hours, even if this might increase gate charges?
Yes / No. What days and hours would be preferred?
15. Would you support Council providing a public recycling drop-off at Oxford transfer station, that is available outside operating hours?
Yes / No. Why or why not?
16. Would you support Council expanding and upgrading their transfer stations if it meant services were improved and catered for another 20-25 years growth, even if it costs more to use?
Yes / No. Why or why not?
17. Would you support Council looking at funding a larger resource recovery park-style facility that will cater for the district's needs for up to 100 years?
Yes / No. Why or why not?

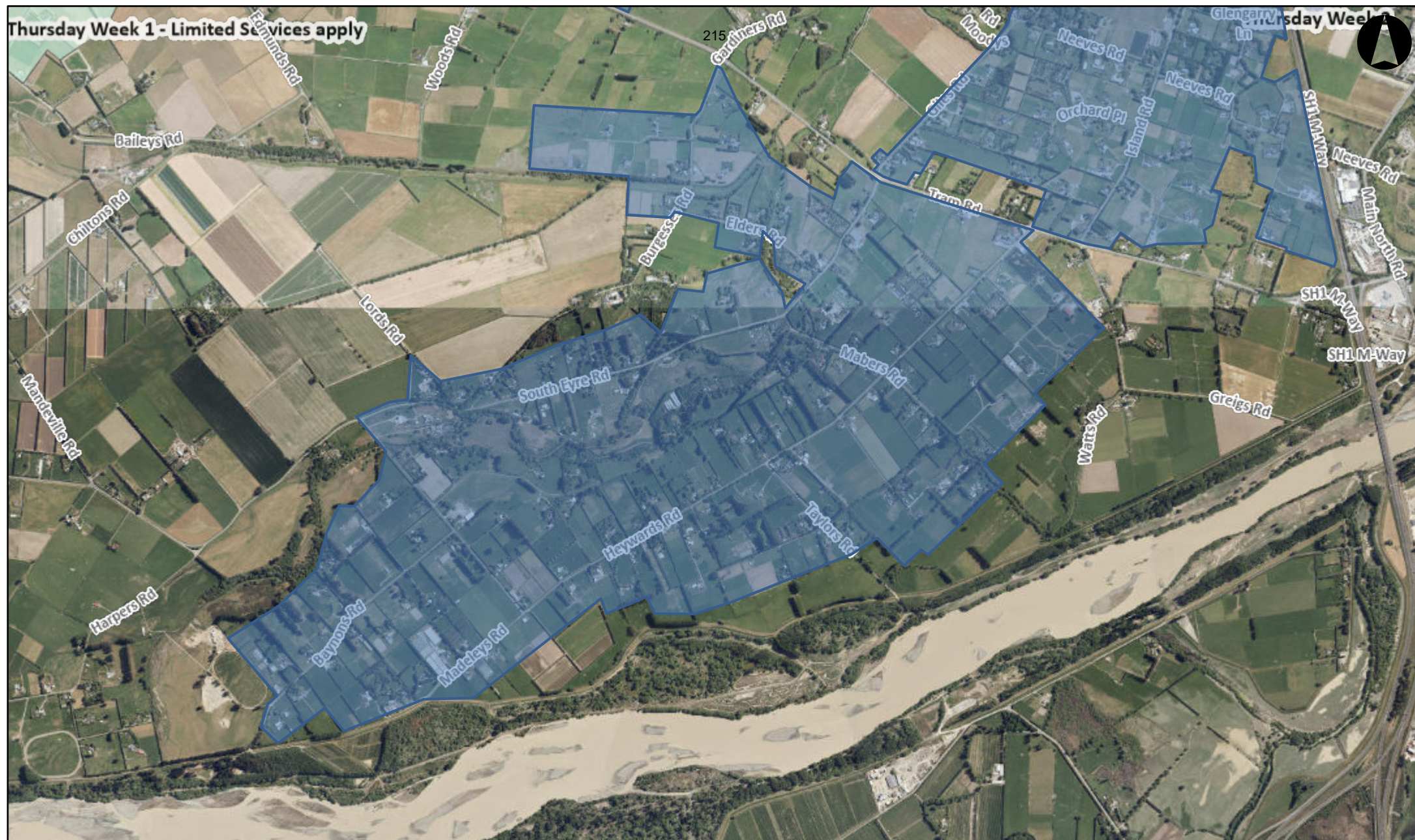
Reviewing our Solid Waste Bylaw

1. Would you support Council better regulating event waste management, construction site waste and the private waste sector, and increasing oversight of the waste going into non-Council operated waste disposal sites?
Yes / No. Why or why not?

Supporting local waste minimisation initiatives

2. What ideas, initiatives, or opportunities do you think Council could support to help reduce waste in Waimakariri?





Clarkville South of Tram Rd

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kitty.waghorn@wmk.govt.nz

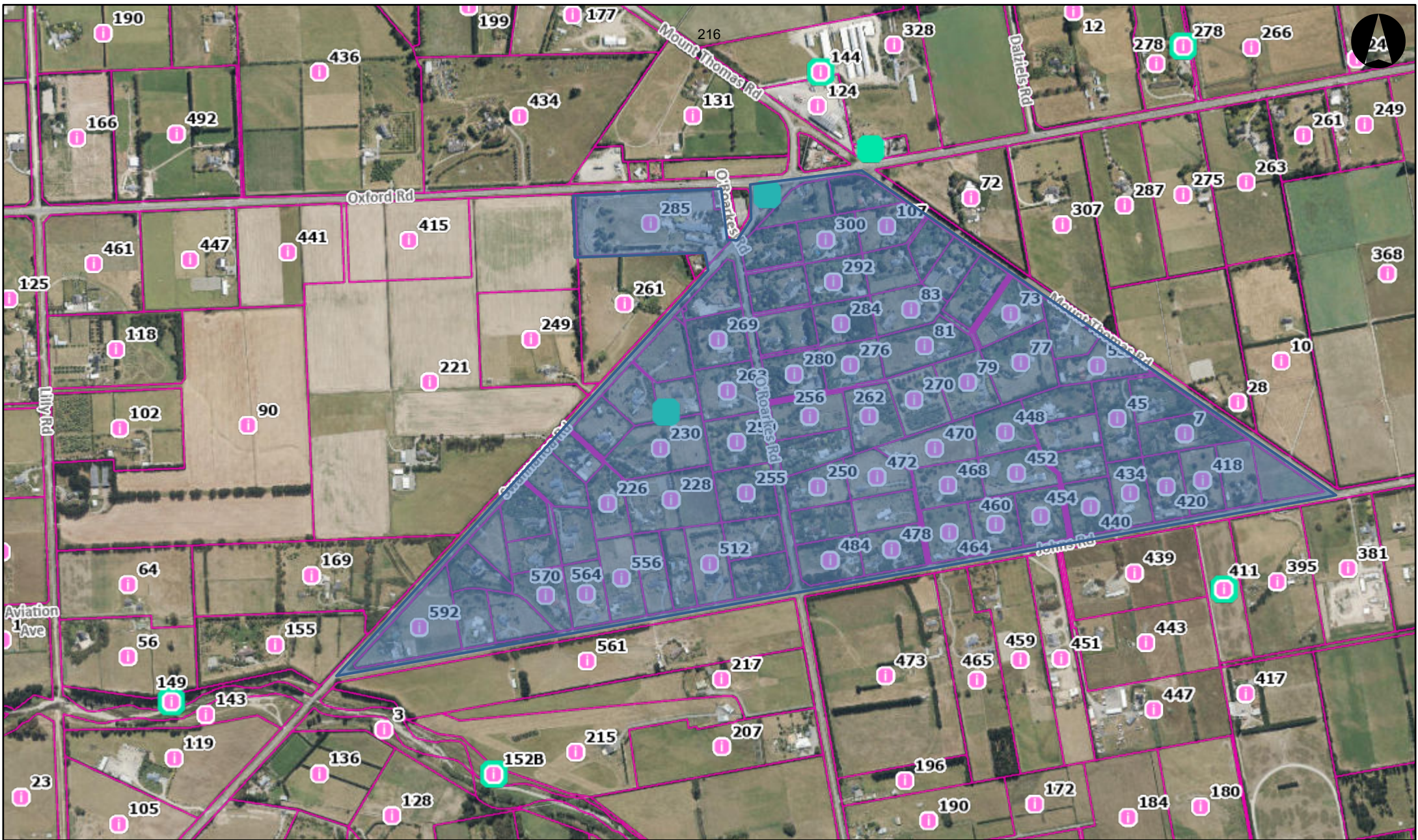
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0 390 780 1170 1560
Metres



Fernside Oxford Rd to Johns Rd

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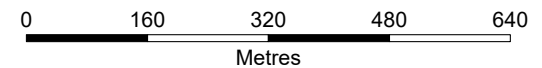
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Waimakariri District Council

Date: 7/07/2026

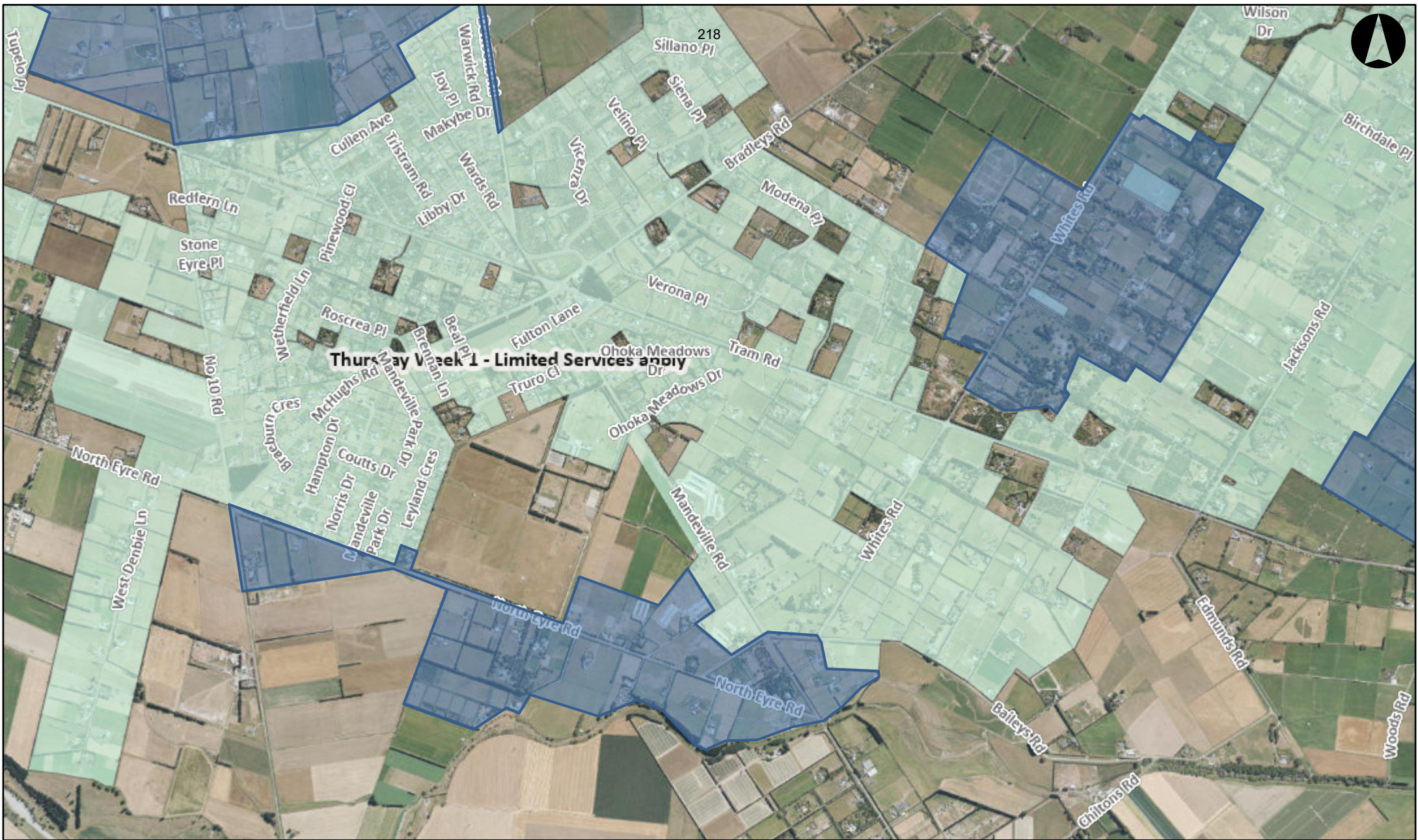
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Mandeville North & Ohoka



Mandeville North Eyre & Whites Rd

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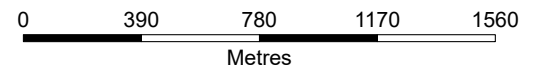
kitty.waghorn@wmk.govt.nz

Waimakariri District Council

Date: 8/07/2026

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WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: EXC-68.02 / 260623148873

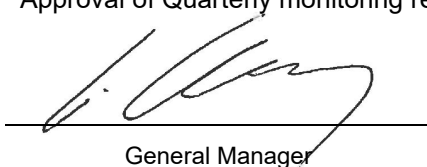
REPORT TO: UTILITIES & ROADING COMMITTEE

DATE OF MEETING: 14 July 2026

AUTHOR(S): Jane Eggleton, Project Planning & Quality Team Leader
 Kalley Simpson, 3 Waters Manager
 Gerard Cleary, General Manager Utilities and Roding

SUBJECT: Approval of Quarterly monitoring report for April - June 2026

ENDORSED BY:
 (for Reports to Council,
 Committees or Boards)


 General Manager


 Chief Executive
1. SUMMARY

- 1.1. This report seeks the Utilities & Roding Committee approval of the Quarterly monitoring report – water services delivery plan for April – June 2026.
- 1.2. This report is required to track progress on implementing the Waimakariri District Council Water Services Delivery Plan (WSDP).
- 1.3. This report, due to be submitted to the Department of Internal Affairs (DIA) by 31 July 2026, has been prepared using the DIA's in-house business unit template, and is the second quarterly report required to be submitted as part of the internal business unit implementation process.
- 1.4. The first monitoring report was submitted to the DIA prior to the deadline of the 30 April following Utilities and Roding Committee approval and receipt of the report was received. However, no feedback has been received on the report.

Attachments:

- i. Quarterly monitoring report - water services delivery plan. Trim no. 260623148874
- ii. Acceptance letter from Secretary for Local Government to Waimakariri District Council. Trim no. 260331087770

2. RECOMMENDATION

THAT the Utilities & Roding Committee:

- (a) **Receives** Report No. 260623148873
- (b) **Approves** the attached quarterly monitoring report – water services delivery plan for submission to the Department of Internal Affairs.
- (c) **Notes** that a quarterly monitoring report will be provided for review each quarter prior to submitting to the Department of Internal Affairs.
- (d) **Notes** that all activities identified are either complete or on-track, with the exception of the Water Services Business Plan which was due to be complete by 30th June 2026, but is now due for completion by 30th November 2026.

3. **BACKGROUND**

- 3.1. In May 2025 the Council opted to establish an internal business unit for managing its water services, in response to new government legislation requiring all councils to submit a water services delivery plan (WSDP) outlining how they intend to manage their water services in a sustainable way going forward. On 21st July 2025, the Secretary for Local Government accepted the Council's WSDP.
- 3.2. The Department of Internal Affairs has supplied the template for the quarterly monitoring report, to allow the Council to demonstrate how it is tracking with the implementation of its WSDP. The report, covering April - June 2026, must be submitted to the DIA by 31 July 2026.
- 3.3. All key activities identified in the WSDP are either on track or completed, with the exception of the internal business plan which we had originally scheduled for completion by 30th June 2026. The business plan referenced in the WSDP is an internal document intended to define the Water Services unit's vision, mission, goals, short-term strategy, and the monitoring and auditing processes for the team. This document will be completed in parallel to the Water Services Strategy and while there are no legislative timeframes for completing this plan, the establishment team have committed to finalising the plan by 30th November 2026.
- 3.4. Quarterly reporting will continue through to the final establishment of the water services programme in July 2028.
- 3.5. The template used in the attached report has been specifically issued by the Department of Internal Affairs for use by in-house business units, and the accompanying guidance has been followed in preparing this report. This is the second monitoring report to be submitted, following the submission of the first report on 30 April 2026.
- 3.6. This monitoring report is made up of two sections:
 - 3.6.1. Part A - provides updates on progress with the implementation of the accepted WSDP, including against the milestones and deliverables in implementation plans. Updates on the planned activities for the next quarter are also required. The activities included in part A are taken from the programme plan for the Water Services transition.
 - 3.6.2. Part B - provides progress on any matters noted in the letter from the Secretary confirming acceptance of the WSDP. There was only one point raised in the acceptance letter for Waimakariri District Council's WSDP and this has been provided in the table in Part B. At this early stage in the programme a high-level overview of the programme has been provided to confirm delivery of the key components of the programme that are required by July 2027.
- 3.7. As part of the Department of Internal Affairs' response to the water services delivery plan, an assessment report was provided. This assessment identified several points that should be monitored during implementation; however, these items are not required to be included in this monitoring report. The points raised in the assessment report include:
 - 3.7.1. *The following matters were identified, which do not prevent the plan from meeting the legislative requirements, but should be monitored during implementation:*
 - *There is limited detail on how ringfencing will be achieved but it does not reach the threshold for legislative non-compliance. WDC noted that more stringent ringfencing and financial reporting is required to ensure that economic regulation is met.*
 - *The implementation plan states efficiency targets and that financial sustainability will be achieved July 2027. However, a lack of interim targets and deadlines in the implementation plan creates a risk that timelines for IBU*

implementation become compressed prior to July 2027. These targets, along with implementation progress, should be monitored.

- *From financial year 2029/30 net debt to operating revenue decreases due to a smaller capital works programmes, which stems from less certainty around regulatory requirements and growth forecasts. The Department expects that, once regulatory settings are confirmed, future water services delivery strategies and long-term plans should capture future capital works programmes and investment with a greater level of certainty. The Department's financial review indicates that there is sufficient financial headroom if capital expenditure were to increase in out years.*
- *Leakage of 22.2 percent is noted, which is relatively high for a network of this age but is in line with WDC performance targets. While this is not a matter of legislative non-compliance, Levels of Service reporting should assist WDC in addressing this issue in the long-term.*
- *Residential and commercial charges were not separated out in the plan.*

In addition, there are the matters that the Department asked WDC to clarify, which were satisfactorily addressed but should still be monitored during implementation:

- *Renewal of expiring consents*
- *Levels of service reporting*

- 3.8. The matters identified in the assessment report have been reviewed. Governance reporting is currently being developed to support levels of service reporting, and financial reporting and ringfencing are incorporated into the programme plan through the financial workstreams.

4. ISSUES AND OPTIONS

- 4.1. This quarterly monitoring report is required to be submitted to the DIA by the 31 July 2026, and every quarter thereafter until July 2028.
- 4.2. The Utilities and Roding Committee can either approve the monitoring report to be submitted, or request changes to be made prior to submission.

Implications for Community Wellbeing

There are no implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.3. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are no financial implications of the decisions sought by this report.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts.

6.3 Risk Management

There are not risks arising from the adoption/implementation of the recommendations in this report.

6.3 Health and Safety

There are not health and safety risks arising from the adoption/implementation of the recommendations in this report.

7. CONTEXT

7.1. Consistency with Policy

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Authorising Legislation

The Local Government (Water Services) Act 2025 sets out the requirement to submit a water services delivery plan.

7.3. Consistency with Community Outcomes

The Council's community outcomes are not relevant to the actions arising from recommendations in this report.

7.4. Authorising Delegations

There is no formal delegation required to approve this report, however it is being brought to the attention of the Utilities and Roading Committee for awareness and oversight of how the Council is tracking in the implementation of its Water Services Delivery Plan.

Quarterly monitoring report - water services delivery plan

In-House Business Unit

Waimakariri District Council

Reporting Period: April - June 2026

Council plans that are retaining water service delivery (In-house Business Unit)

Part A: Progress updates

Quarterly reporting period: 1 April – 30 June 2026

Activity / milestone / deliverable	Expected completion date	On track to meet timeframe? (Yes/No)	Issues, risks and mitigations (if any)
Change proposal complete & change process underway	10 th July 26	Yes	
Statement of Expectations for the Water Services unit complete and approved	16 th June 26	Yes	Complete
Water services strategy draft	6 th October 26	Yes	Working group setup and timeline developed to manage tight timeframes.
All Service Level Agreements drafted, with all agreements to be finalised and signed by end of September.	30 th September 26	Yes	Coordinating review of draft Service level agreements which includes 14 individual agreements requiring input from multiple stakeholders.
Water Services Significance & Engagement policy draft complete.	30 th June 26	Yes	Draft complete – ready for approval
Information disclosure – first submission – includes Dividends statement, Policy for Funding Growth and Information about charges – approved and submitted	30 th June 26	Yes	Approved and submitted, published on Councils website.
Community drinking water assessment complete, approved and submitted	30 th June 26	Yes	Approved and submitted, published on Councils website.
Water Services Business plan	30 th June 26	No	Delayed due to workload with completing other essential documents. Revised completion date 30 th November 2026.

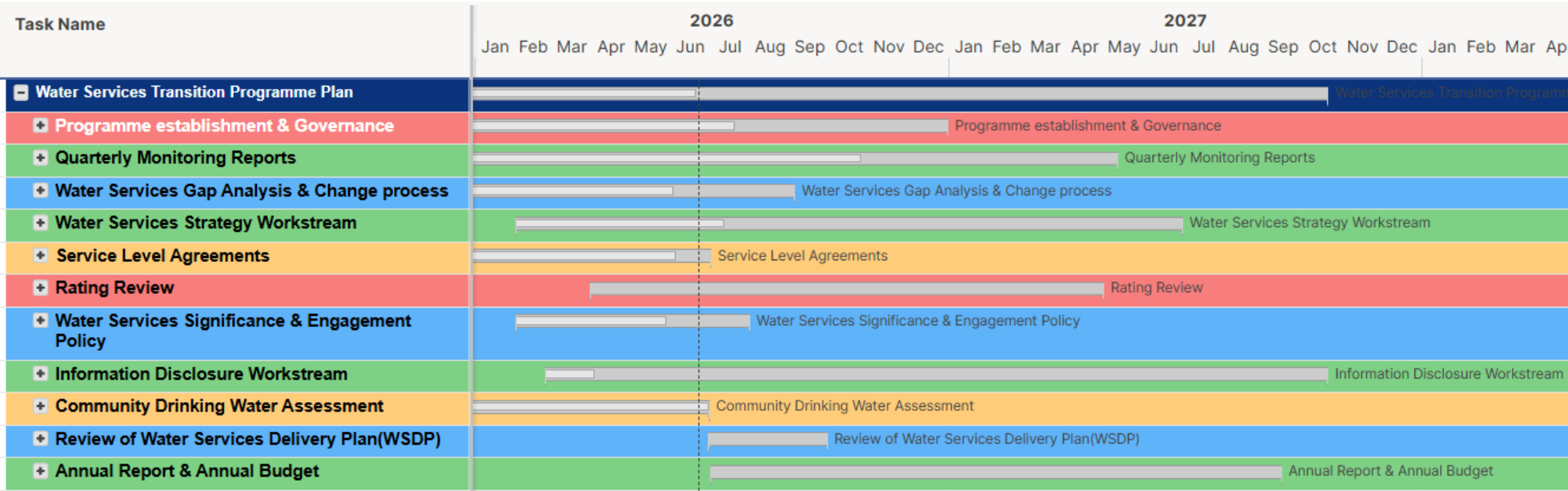
Communications plan and website changes – First phase of changes complete.	1 st July 26	Yes	Complete
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Expected activity in next quarter – July - September 2026

Milestone / deliverable	Expected activity
Review of Water Services Delivery Plan	Determine whether any significant changes are needed that would require resubmission. If so, implement the changes, prepare a report, and seek approval for the revised WSDP.
Water Services Business plan	Draft the internal business plan.
Finalise and signoff Service level agreements	Ensure all Service Level Agreements are finalized and approved.
Complete draft Water Service Strategy	Complete first draft of the Water Services Strategy and provide to the steering group for review.
Water Services Significance and Engagement Policy approval	Policy finalised and approved by Council.
Access to land processes	Develop processes to include powers provided for in the Act.
Annual report, and annual budget information preparation	Develop & test financial reporting to ensure all reporting requirements are met.
Financial year actual information preparation – ID requirement	Develop & test financial reporting to ensure all reporting requirements are met.
Wastewater bylaw review underway	Draft Wastewater bylaw under development.
Develop first draft – Trade waste bylaw	Draft Trade waste bylaw under development.
Develop first draft – Trade waste discharge plan	Draft Trade waste plan under development.

Part B: Additional monitoring information – items noted in letters of acceptance

Items noted in letters of acceptance	Progress update
The timeline for implementation of your in-house business unit, including the number of milestones in the 2026/27 financial year ahead of the stated establishment date of July 2027.	High-level timeline is provided below.





21 July 2025

Jeff Millward
Chief Executive
Waimakariri District Council
Private Bag 1005
Rangiora 7440

45 Pipitea Street
Thorndon
PO Box 805
Wellington 6140
www.dia.govt.nz

Dear Jeff,

Thank you for submitting your Water Services Delivery Plan for Waimakariri District Council on 7 July 2025.

The Department of Internal Affairs (the Department) has assessed your plan in accordance with s20(1)(b) of the Local Government (Water Services Preliminary Arrangements) Act 2024 (the Act). The assessment process for your plan included:

- a financial and technical assessment, to confirm the plan meets the financial sustainability requirements outlined in the Act, and
- a legislative assessment, to ensure that all requirements set out in the Act have been met.

The assessment was considered by a Panel consisting of senior representatives from National Infrastructure Funding and Financing Limited, the Local Government Funding Authority, the Commerce Commission, the Water Services Authority, and the Department of Internal Affairs.

The Panel also included an external observer, whose role was to ensure the integrity and consistency of the Panel discussion. The Panel was chaired by Department's Executive Director Water Services Reform Programme.

Conflict of interest assessments were undertaken for all individuals involved in the assessment process.

Following the Panel discussion and on the recommendation of the Executive Director Water Services Reform Programme, I am pleased to inform you that I have accepted your plan under s20(1)(b) of the Act.

Next steps

As soon as is practicable, the plan for Waimakariri District Council must be published on the relevant Council websites. Once this has been confirmed, the acceptance decision and relevant assessment materials will be shared with you and subsequently published on the Department's website.

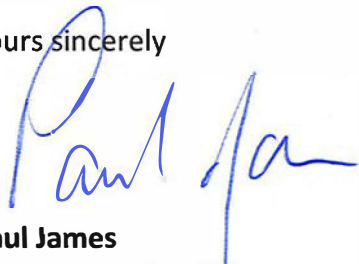
The Department will be in contact with you over the coming months regarding next steps for monitoring the implementation of your water services delivery plan.

The Department would also like to highlight the following aspects of your plan that our assessment process identified as priorities to monitor during implementation:

- The timeline for implementation of your in-house business unit, including the number of milestones in the 2026/27 financial year ahead of the stated establishment date of July 2027.

I would like to acknowledge the level of detail and time that Waimakariri District Council has put into developing its water services delivery plan and submitting it ahead of the 3 September deadline.

Yours sincerely



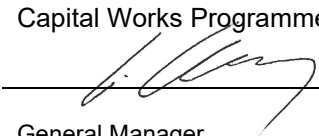
Paul James
Secretary for Local Government

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR INFORMATION****FILE NO and TRIM NO:** DRA-20-76-08 / 260611139821**REPORT TO:** UTILITIES AND ROADING COMMITTEE**DATE OF MEETING:** 14 July 2026

AUTHOR(S): Rob Kerr, Rangiora Eastern Link Programme Manager
 Reuben Hunt, Senior Project Manager
 Jason Recker, Stormwater & Waterways Manager

SUBJECT: Rangiora Stormwater Management Plan
 Capital Works Programme Delivery Plan

ENDORSED BY:
 (for Reports to Council,
 Committees or Boards)


 General Manager


 Chief Executive
1. SUMMARY

- 1.1. This report is to inform the Utilities & Roding Committee of the steps proposed to develop a capital works programme delivery plan for the next implementation phase of the Rangiora Stormwater Management Plan 2025-40 (SMP), with a focus on validating, refining and prioritising the capital works programme before Council commits to detailed design and construction.
- 1.2. The SMP has been developed as a requirement of the Rangiora Stormwater Network Discharge Consent CRC262840, which superseded CRC184601. The SMP sets out how Council will progressively manage stormwater discharges from the Rangiora reticulated network to meet receiving environment objectives for flooding, erosion and scour, stormwater quality, wāhi tapu and wāhi taonga, and mahinga kai.
- 1.3. The adopted SMP (refer Trim 260120008514) identifies an indicative capital works programme of water quality improvement projects focused on the higher-risk and currently untreated catchments, including the Newnham Street Industrial Area in the North Brook catchment, North Brook, Middle Brook, the North Drain (refer Section 9 of the SMP, Trim 260119007726[v03]) and stormwater management area performance improvements. The current Long Term Plan 2024-34 includes \$9.8 million for water quality improvement projects to achieve compliance with the Land and Water Regional Plan outcomes by 2040.
- 1.4. Before proceeding to delivery of individual projects, it is proposed that Council undertakes a structured validation phase in the 2026/27 financial year. This will include ongoing stormwater quality monitoring to validate contaminant load modelling, and feasibility and options studies for each priority catchment identified to date. The purpose is to test the assumptions and prioritisation behind the SMP, confirm the need for each project, and establish a robust and defensible programme of capital works.
- 1.5. The outcome of the 2026/27 work programme will be a validated and prioritised set of projects that deliver the outcomes required by the SMP and consent. A further report will be brought to Council for consideration in 2027/28 at the conclusion of these investigations, setting out the recommended capital works programme, delivery sequence, budget implications and next approval points.

- 1.6. An option is also proposed to be retained to construct a combined stormwater management area (SMA) that could serve the South East Rangiora Development Area B ODP south of Boys Road, as well as the Rangiora Eastern Link and the existing Newnham Street Industrial Area catchment. This option would be captured in a Private Development Agreement (PDA) to be finalised with the developers of the surrounding land and would remain subject to a later Council decision following completion of the Newnham Street feasibility study and confirmation of cost, land, consenting and water quality benefits.

2. **RECOMMENDATION**

THAT the Utilities and Roothing Committee:

- (a) **Receives** Report No. 260611139821
- (b) **Notes** the proposed programme of work set out in Table 3 of this report to develop a capital works programme delivery plan, at an estimated total cost of \$250,000, to be funded from Network Discharge Consent Implementation Works (PJ 102694.000.5123) which has a budget of \$250,000 allocated in 2026/27.
- (c) **Notes** that the main activities comprise stormwater quality monitoring, contaminant load model validation, and feasibility and options studies for the priority catchments and facilities identified in the SMP.
- (d) **Notes** that the Rangiora Stormwater Management Plan 2025-40 is the implementation document required under the Rangiora Stormwater Network Discharge Consent CRC262840, and that it identifies a programme of capital and operational works required to progressively improve stormwater discharges from the Rangiora reticulated network.
- (e) **Notes** that the SMP indicative capital works programme has been developed from monitoring, modelling, risk assessment and catchment-scale prioritisation, but that the assumptions, contaminant load modelling and project scopes now need to be validated through catchment-specific feasibility and options studies and a further report will be brought to Council in 2027/28 for consideration with the outcome from these studies.
- (f) **Notes** that an option is proposed to be included in the Private Development Agreement for a combined stormwater management area to serve the South East Rangiora Development Area B ODP south of Boys Road, Rangiora Eastern Link and the Newnham Street Industrial Area catchment, but that any Council commitment to this option would be subject to a later decision following feasibility assessment.

3. **BACKGROUND**

- 3.1. Rangiora stormwater discharges primarily to the Cam River / Ruataniwha catchment, with some discharges also to the Ashley River / Rakahuri via the North Drain and to the Cust River via No. 7 Drain.
- 3.2. A Stormwater Management Plan for Rangiora township has been developed as a requirement of the Rangiora Stormwater Network Discharge Consent. Consent CRC262840 was granted on 14 January 2026 and superseded CRC184601. The consent is effective until 30 June 2045 and requires Council to maintain and implement the SMP for the duration of the consent.
- 3.3. The purpose of the SMP is to detail the options to manage stormwater discharges authorised by the consent so that the receiving environment objectives and targets are met. These objectives require Council to use best practicable options to manage flooding, avoid erosion and scour, improve stormwater discharge quality, protect wāhi tapu and wāhi taonga, and protect and enhance mahinga kai species and areas.
- 3.4. The SMP has a 2025-40 planning horizon. The 2040 date reflects the timeframe identified through the consent process for Council to progressively work toward the applicable Canterbury Land and Water Regional Plan stormwater quality outcomes.

- 3.5. The SMP is therefore more than a technical planning document. It is the principal implementation tool by which Council demonstrates compliance with the consent, directs stormwater investment to the highest-risk catchments, and provides an adaptive management framework so that monitoring, modelling and investigations inform future work programmes and Long Term Plan decisions.

4. **ISSUES AND OPTIONS**

4.1. Implementation context

- 4.1.1. The adopted SMP focuses primarily on water quality improvement because this is the area where the need is greatest. Earlier stormwater work in Rangiora has addressed a number of quantity, flooding and erosion issues, including implementation of the 2001 Rangiora SMP, and flood recovery works following the 2014 event.
- 4.1.2. Water quality monitoring from baseline monitoring has identified exceedances of several contaminant guideline values during wet weather. The SMP identifies the North Brook and Middle Brook as high-risk sub-catchments, and the North Drain and No. 7 Drain as medium-risk sub-catchments.
- 4.1.3. The majority of Rangiora has existing attenuation and/or treatment infrastructure, including wet and dry ponds, infiltration basins, constructed wetlands and some proprietary devices. However, some older developed catchments have little or no significant attenuation or water quality treatment before discharge to the receiving environment. These include the Middle Brook, the Newnham Street Industrial Area within the North Brook catchment, parts of South Brook and much of the North Drain catchment.
- 4.1.4. The SMP identifies that further investigation is required into the feasibility and practicality of capital works to retrofit stormwater treatment where practicable (refer Section 8 of SMP, Trim 260119007726[v03]), improve existing stormwater management area performance, and supplement treatment with source controls where land, groundwater or network constraints limit the practicality of wetland or basin options.

4.2. Work completed to date

Table 1 – Summary of work completed to date

Workstream	Summary of work completed
Stormwater monitoring	Baseline monitoring was undertaken in 2014-17 and stormwater network monitoring has continued under the network discharge consent. Results have identified contaminants of concern and catchments requiring further investigation.
Annual reporting and compliance review	Annual reporting has summarised consent implementation, maintenance, sampling results, exceedances, service requests, site investigations and future improvement actions.
Contaminant Load Model	A Contaminant Load Model (CLM) has been developed for Rangiora for copper, zinc and total suspended solids. The model can be re-run for treatment scenarios such as wetlands, storm filters and rain gardens.
Catchment and risk assessment	The SMP has characterised the Rangiora sub-catchments, receiving environments, land use, groundwater and soil constraints, treatment status, high-risk areas and project risks.
Project prioritisation framework	A structured project implementation and prioritisation framework has been developed to direct investment toward projects with the greatest environmental, regulatory, feasibility and community benefit.
Capital programme identification	The SMP identifies a \$9.8 million programme for the five highest-priority water quality improvement projects in the Long Term Plan 2024-34.
Mana whenua and stakeholder engagement	Engagement has occurred with Te Ngāi Tūāhuriri Rūnanga through Mahaanui Kurataiao Ltd, the Rangiora Ashley Community Board and the Waimakariri Water Zone Committee.

Capital works programme identified in the SMP

- 4.3. The following table sets out the indicative capital works identified in the SMP (refer Section 9 of SMP, Trim 260119007726[v03]), the indicative budget allocation and the primary outcome sought. The SMP noted a number of risks and deficiencies in the current treatment regime and committed the Council to further improvement in these areas. Budgets were then included in the LTP. These were developed from a high-level top-down allocation method, and generally reflect the importance of the issue, in terms of the risks in the catchment and the sensitivity of the receiving waters. However, as noted in the SMP these indicative costs require further option scoping and development of costings.

Table 2 – Indicative capital works identified in the SMP

SMP capital project	Indicative budget	Primary outcome sought
Newnham Street Industrial Area Treatment (North Brook)	\$4,500,000	Reduce high-contaminant industrial runoff, including zinc, copper, hydrocarbons and TSS, from the Newnham Street catchment before discharge to North Brook.
North Brook Treatment	\$1,800,000	Retrofit treatment in high-risk parts of the North Brook catchment and improve contaminant reduction before discharge.
North Drain Treatment - potential infiltration basin	\$1,200,000	Investigate and, if justified, formalise or construct infiltration/treatment to reduce contaminant load entering the North Drain system.
Middle Brook Treatment	\$1,800,000	Retrofit stormwater treatment in the Middle Brook catchment where older urban areas currently have limited treatment.
SMA treatment efficiency improvements or alternate options	\$500,000	Improve performance of existing stormwater management areas or develop alternate treatment responses where existing facilities are under-performing.
Total	\$9,800,000	Long Term Plan 2024-34 allocation for SMP water quality improvement projects.

Need to validate the SMP assumptions before committing to delivery

- 4.4. The SMP provides the strategic framework and identifies the priority programme, but project-level validation before capital works are committed is still required. The initial programme has necessarily been developed from a combination of monitoring, modelling, existing asset knowledge, planning assumptions and high-level feasibility assessment.
- 4.5. As noted in the table above, a key part of the validation is to have a Contaminant Load Model (CLM) for the catchment. This is a key tool for understanding relative contaminant loads and testing treatment scenarios. However, the current model uses generic contaminant load assumptions by land use. To provide a robust basis for investment, those assumptions should be validated using Rangiora catchment-specific monitoring data, using either multiple grab samples or composite samples that better represent contaminant load over the duration of storm events than grab samples.
- 4.6. A validation phase will reduce delivery risk by confirming whether each proposed project is needed, what scale of intervention is justified, what treatment options are feasible on the ground, and how projects should be sequenced. It will also confirm whether some outcomes are better achieved through source control, operational improvements, retrofit treatment, land acquisition, a combined SMA, or a combination of measures.

- 4.7. This approach is consistent with the adaptive management approach in the SMP. It allows Council to progress compliance while ensuring that capital works are evidence-led, affordable, deliverable, and targeted to the greatest water quality and receiving environment benefits.

Reserving option for combined Rossburn Newnham Street Industrial Area SMA

- 4.8. The Newnham Street Industrial Area is a high-priority catchment because it is an existing industrial area with limited treatment, and discharges to the sensitive North Brook receiving environment. Further work is required to validate this catchment as a priority however as the only industrial catchment in Rangiora that is not treated, staff expect that the additional work will validate the assumptions in the SMP.
- 4.9. Early option work has identified a range of potential responses, including onsite private systems, proprietary filtration, street-level rain gardens, a separate Newnham Street SMA, and a combined SMA which will treat and attenuate runoff from the existing industrial area, the new residential development of the South East Rangiora Development Area B and the new Rangiora Eastern Link.
- 4.10. A combined South East Rangiora Development Area B/Rangiora Eastern Link/Newnham Street SMA may provide a more integrated and cost-effective way to serve both the Rossburn residential development, REL and the existing Newnham Street Industrial Area catchment. However, this remains a strategic option only and should be included in the South East Rangiora Development Area B PDA planning process so that land, alignment and network integration opportunities are not lost before the feasibility assessment is completed.
- 4.11. No commitment to construct a combined SMA should be made through this report. A later Council decision would be required after the feasibility study has confirmed the technical, land, cost-sharing, consenting, timing, operational and water quality implications of the option compared with alternatives. There will also be a future report regarding the proposed PDA for the South East Rangiora Development Area B for Council consideration.

Proposed 2026/27 Scope Of Work

The proposed 2026/27 programme is an investigative and enabling phase. It is intended to produce a validated and prioritised capital works programme for Council consideration in 2027/28, rather than to commit Council to construction of specific projects at this stage.

Table 3 - proposed 2026/27 programme of work

Work package	Scope	Key output	Timing
Stormwater quality monitoring plan	Develop a monitoring plan using composite auto-sampling to support CLM calibration. Confirm sites, events, equipment, laboratory requirements and health and safety procedures.	Monitoring plan and field programme ready for implementation.	Q1 2026/27
Stormwater monitoring and CLM validation	Undertake targeted wet-weather composite sampling and supporting field measurements to validate contaminant load assumptions for priority land uses and catchments.	Catchment-specific monitoring dataset and calibrated/validated CLM assumptions.	Q1-Q3 2026/27
Newnham Street Industrial Area feasibility and options study	Test options for improving runoff quality from the Newnham Street Industrial Area, including source controls, onsite systems, proprietary treatment, street-level devices, a separate SMA and a combined Rossburn PDA / Newnham Street SMA.	Recommended strategic option(s), feasibility findings, constraints, cost range, risks and decision requirements.	Q1-Q3 2026/27
North Brook and Middle Brook retrofit treatment studies	Identify practicable retrofit opportunities, constraints, treatment performance, land requirements, costs, dependencies and source-control opportunities in each catchment.	Preliminary options assessment and preferred short-list for each catchment.	Q2-Q4 2026/27

Work package	Scope	Key output	Timing
North Drain potential infiltration basin study	Confirm whether a formalised infiltration/treatment basin, or modification of the existing swale into an infiltration swale, is feasible and effective, including ground conditions, groundwater, constructability, operation and maintenance requirements.	Feasibility assessment and preferred implementation pathway or alternative response.	Q2-Q4 2026/27
Northbrook Wetlands and Pond C performance assessment	Assess existing facility performance and identify operational, maintenance or structural improvements to improve water quality outcomes.	Facility performance reports and recommended improvement actions.	Q2-Q4 2026/27
Prioritisation refresh of the capital works programme	Update SMP prioritisation using monitoring, CLM calibration, feasibility findings, cost estimates, benefits, risks and delivery constraints.	Validated and prioritised capital works programme, including recommended projects, timing, budgets and approval pathway.	Q4 2026/27
Technical reporting	Prepare a technical report summarising the findings from the above work packages.	Documentation of technical justification for the proposed capital works programme.	Q4 2026/27
Council reporting and next decision	Prepare report for Council consideration following completion of studies.	2027/28 report seeking direction on the proposed capital works programme and next delivery phase.	2027/28

5. **COMMUNITY VIEWS**

5.1. **Mana whenua**

Te Ngāi Tūāhuriri Rūnanga, through Mahaanui Kurataiao Ltd, were previously engaged to assist with preparation of the SMP. Mana whenua values are directly relevant to implementation because the consent objectives include protection and culturally appropriate treatment of wāhi tapu and wāhi taonga, and the protection and enhancement of mahinga kai species and areas.

The proposed validation phase does not change the SMP outcomes. It will provide a stronger evidence base for deciding which projects best deliver improved water quality and mahinga kai outcomes. Engagement with mana whenua (now via Whitiara) will continue through the feasibility phase where options may affect waterways, wetlands, cultural values or opportunities for ecological restoration.

5.2. **Groups and organisations**

Environment Canterbury, environmental organisations, industrial landowners and businesses in affected catchments and downstream landowners may have an interest in the outcomes of the SMP capital programme. More targeted engagement is expected as catchment-specific options are developed.

5.3. **Wider community**

The wider community has an interest in improved waterway health, prudent use of stormwater capital budgets, and ensuring that required stormwater improvements are sequenced and delivered in a way that provides value for money and supports compliance with the network discharge consent.

6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

6.1. **Financial Implications**

The budget for 2026/27 was adjusted by a staff submission to \$250,000. This matches the indicative allocation for the 2026/27 work programme of \$250,000 as detailed with the work package breakdown as set out in the table below. If the validation work identifies a need to accelerate investigations, secure land, undertake additional monitoring, or bring forward design funding, a further report will be brought to Council.

Table 4 - indicative allocation for the 2026/27 work programme

Work package	Indicative allocation	Deliverable focus
Water quality monitoring and CLM validation	\$70,000	Monitoring plan, sampling and model calibration support.
Newnham Street Industrial Area feasibility and options study	\$20,000	High-level plan and feasibility review, including Rossburn combined SMA option.
North Brook and Middle Brook treatment studies	\$60,000	Preliminary options assessment and cost/benefit review.
North Drain potential infiltration basin study	\$20,000	Preliminary feasibility assessment.
Northbrook Wetlands and Pond C performance assessment	\$30,000	Facility performance assessment and improvement options.
Programme management, reporting and decision support	\$50,000	Programme coordination, risk management, reporting and 2027/28 Council report.
Total	\$250,000	Indicative allocation within the FY2026/27 Stormwater LOS programme budget.

Note that there is a budget of \$50,000 in 2025/26 to cover the current activities on this project. To date \$35,000 has been spent on fees. The expected spend to year end will be approx. \$5,000, giving a total of \$40,000 which is under budget. As this work is not towards a specific capital outcome, it will be expensed and there will be no budget or expenditure carried over.

The Long Term Plan 2024-34 includes \$9.8 million for water quality improvement projects to achieve compliance with the Land and Water Regional Plan outcomes by 2040. The proposed 2026/27 work to develop a capital works programme delivery plan is an enabling and validation phase to refine the scope, priority, cost and delivery pathway for those projects before Council commits to detailed design and construction.

6.2. Sustainability and Climate Change Impacts

The delivery plan supports improved stormwater quality, healthier receiving environments and adaptive management of urban stormwater risks. Feasibility studies will consider sustainable urban design, treatment performance, maintainability, land requirements, whole-of-life cost, and resilience to climate-related changes in rainfall intensity and groundwater conditions.

6.3. Risk Management

Table 5 – Risks log

Risk	Issue	Management response
Regulatory compliance risk	If Council does not progress SMP implementation, it may not demonstrate progressive improvement or compliance with consent obligations.	Proceed with validation work, maintain monitoring, and report back with a deliverable capital programme.
Investment risk	Projects may be over, or under-scoped if based only on modelled assumptions.	Validate CLM assumptions and complete feasibility/options studies before committing to design and construction.
Delivery risk	Land, groundwater levels, utilities or constructability constraints may limit treatment options.	Identify constraints early through catchment-specific studies and maintain alternative options.

Risk	Issue	Management response
Rosburn/Newnham interface risk	Opportunity for an integrated SMA may be lost if the Rosburn PDA proceeds without allowing for the option.	Retain the combined SMA option through PDA planning while reserving final Council decision.
Budget risk	Study findings may identify the need for additional or earlier funding.	Report to Council if additional budget or programme adjustment is required.

6.4. **Health and Safety**

The proposed programme involves field monitoring, site inspections and investigations around waterways, roads, industrial areas and stormwater assets. All field work will be undertaken in accordance with Council health and safety procedures, including traffic management, confined space controls where applicable, lone worker controls, waterway safety, and safe sampling procedures during wet-weather events.

7. **CONTEXT**

7.1. **Consistency with Policy**

The proposed delivery plan is consistent with the Rangiora SMP, the Long Term Plan 2024-34, the Canterbury Land and Water Regional Plan, Council engineering standards and the adaptive management requirements of the network discharge consent.

7.2. **Authorising Legislation**

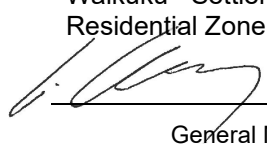
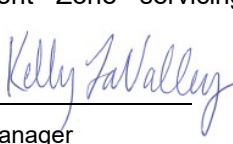
The Resource Management Act 1991 provides the framework under which Environment Canterbury has issued the Rangiora Stormwater Network Discharge Consent. The Local Government Act 2002 provides the framework for Council funding, decision-making and service delivery responsibilities.

7.3. **Consistency with Community Outcomes**

The recommendations support Council community outcomes relating to a healthy and sustainable environment, infrastructure that meets current and future needs, and a district that responds to growth while managing environmental effects.

7.4. **Authorising Delegations**

7.5. The Utilities and Roading Committee has delegation to consider stormwater operational and capital works matters where they are within the budget allocated by the Council.

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION****FILE NO and TRIM NO:** WAT-03/260326084459**REPORT TO:** UTILITIES & ROADING COMMITTEE**DATE OF MEETING:** 14 JULY 2026**AUTHOR(S):** Jennifer McSloy, Development Manager
Matt Bacon, DPU Manager**SUBJECT:** Waikuku Settlement Zone servicing and Chinnerys Road General Residential Zone**ENDORSED BY:**
(for Reports to Council,
Committees or Boards)
General Manager
Kelly Talley
Chief Executive**1. SUMMARY**

- 1.1. This report sets out servicing requirements for two areas of the district that were rezoned as part of the now Partially Operative District Plan (**PODP**): Waikuku Beach Settlement Zone (**Waikuku SETZ**) area, and Chinnerys Road General Residential Zone (**Chinnerys GRZ**) area.
- 1.2. The purpose is to provide an overview to the Utilities & Roading Committee of the staff conclusions that:
 - 1.2.1. For the Chinnerys GRZ area, developers will be required to lead the service upgrades to enable their development on a site-by-site basis, as area wide servicing upgrade by one developer is not financially or practically feasible. There is capacity in the local networks subject to localised upgrades developers will need to complete. Not all sites will be able to find solutions on their own, and they will need to work with neighbouring landowners to enable development. A high-level assessment of area wide solutions has been undertaken and estimates infrastructure costs of \$14.1million – see attachment i.
 - 1.2.2. For the Waikuku SETZ area, there is no capacity to service full development in the existing waters systems, so this area could only be developed if a developer or group of developers were able to fund comprehensive area wide upgrades to unlock development. All landowners need to contribute their proportion to the upgrades required. There is no site-by-site subdivision option as there is with Chinnerys GRZ. All upgrade works are estimated at approximately \$15.5million, and it is therefore unlikely one landowner could lead the work. Staff do not recommend Council leads the projects due to the large cost, lack of budget and high risk the costs will not be recovered. Attachment ii outlines a high-level assessment of area wide servicing solutions.
- 1.3. Staff have received enquiries from landowners in the Waikuku SETZ and Chinnerys GRZ areas regarding servicing, asking when servicing upgrades will be undertaken to enable growth. The Project Delivery Unit (**PDU**) has undertaken a high-level assessment of service upgrades required to support the growth enabled by the PODP, and they are substantial in both areas (see attachments i and ii for details). There is no level of service or renewal project needed in either area for existing infrastructure, so the sole purpose of any projects would be to facilitate growth.
- 1.4. It is typical for rezoned areas to require new or upgraded water and road services. Where the new or upgraded services are for the benefit of the growth area only, these projects are typically developer led. In some (less common) situations, the Council may lead the investment in infrastructure upgrades but would typically only do so where it has a

reasonable to high level of confidence in that initial investment being recovered. This requires confidence the area in question will be developed to its full potential within a short to medium timeframe. For both areas considered in this report, there is not an adequate case for the Council to make this substantial investment.

- 1.5. Both areas are owned by multiple landowners. Neither area has an Outline Development Plan (ODP) overlying it. Centralised service upgrades and installations will require landowners to work together to enable development.
- 1.6. The estimated costs to provide new or upgraded services to each area are summarised in the main body of the report. In Waikuku SETZ, the total cost is around \$15.5million, which would be \$54,000 per lot. At Chinnerys GRZ, centralised servicing solutions are estimated at \$14.1M, \$66,500 per lot. Note these are in addition to any district / scheme Development Contributions and on-site servicing costs specific to each development.
- 1.7. The servicing constraints are different in the two areas. Waikuku SETZ water and sewer network is currently at capacity, unable to service further subdivision without substantial upgrade works. Waikuku SETZ cannot progress development on a "lot by lot" basis; with the networks currently at capacity, a centralised solution is needed before further subdivision occurs. Given the Council does not have the required budgets to enable this growth, and it is unlikely any single developer would be able to fund the projects, progress of further development in this area is unlikely, despite the zoning change. Were an organised developer group to come together with a proposal to deliver the infrastructure upgrades required, Council staff would reconsider this advice.
- 1.8. Parts of Chinnerys GRZ could develop standalone on a "lot by lot" basis as there is capacity in the water and sewer systems, and (for example) they could use low pressure sewer systems to pump into a gravity sewer main. This is not an option at Waikuku SETZ. However, not all existing lots in Chinnerys GRZ will be able to develop individually due to stormwater management constraints caused by the natural lie of the land.
- 1.9. In terms of progressing options for this area, staff have considered ways to introduce an ODP by way of a Council initiated plan change. This option is currently not available to Council unless one of the exemptions to 'plan stop' can be met. If this option were pursued, Council would need to prepare and lodge a 'plan stop' exemption with the Minister for Resource Management Reform, and then if successful complete a plan change process. Given the impending resource management legislative reform, Council staff recommend this option is not pursued currently. The next opportunity to revisit planning requirements is expected to be the combined regional land use plan, which the Planning Bill currently signals is required to be completed in 2028.
- 1.10. It is noted such a plan response will not on its own resolve the challenges presented by multiple land ownership, or the servicing upgrades required. Other areas of the district have ODPs, with land under multiple ownership, and in these areas coordination between landowners is also required to provide development areas with cohesive long term servicing solutions.
- 1.11. Timeframes for full development are unknown. Council has no budget for the projects required, and with the land under multiple ownership with no overarching development plan, staff do not recommend putting in place growth projects to be funded by development contributions. Council would likely loan fund the cost for several years, and due to the high costs, it is considered unlikely these costs would be recovered in the short to medium term. If not recovered within the standard 10 year Development Contribution time frame, Council would need to consider if costs are to be funded by the scheme, which would significantly impact ratepayers, or continue to loan fund, pay interest and try to recoup from growth outside of 10 years.
- 1.12. The existing infrastructure in the Waikuku SETZ area will be due for renewal in future. At that point in time, staff could assess options to upsize infrastructure as part of renewals to cater for growth. However, renewals are not due for several decades (40-50 years). They could offer a pathway for water and sewer to be upsized, but it would not resolve the stormwater or roading constraints.

Attachments:

- i. Chinnerys Road GRZ concept servicing report and cost estimate (260326084459)
- ii. Waikuku Beach SETZ concept servicing report and cost estimate (260120008878)

2. **RECOMMENDATION**

THAT the Utilities and Roothing Committee:

- (a) **Receives** Report No. 260615141953;
- (b) **Notes** that rezoning of Chinnerys Road GRZ and Waikuku Beach SETZ allows for increases in density, but servicing constraints and fragmented land ownership mean comprehensive infrastructure upgrades led by the Council are not financially feasible due to the high costs and low likelihood of full development occurring in the short to medium timeframe.
- (c) **Notes** that in the case of the Chinnerys Road GRZ, there will be servicing options and upgrades that can be undertaken on a site-by-site basis, at the cost of developers, that may enable some lots to be developed, without a comprehensive area wide suite of upgrades.
- (d) **Notes** that for the Waikuku Beach SETZ area, the current servicing does not allow for any further development in this area without upgrades which will be expensive and challenging for developers in the area to deliver. Water and sewer infrastructure will be due for renewals in several decades time (40-50 years), which may introduce an opportunity to increase water and sewer capacity as part of the renewals programme. However, this will not resolve stormwater or roading constraints.
- (e) **Notes** that it will be up to individual developers to make their own assessment of their costs to develop. For Chinnerys Road GRZ this will be expensive compared to many other areas in the district. For Waikuku Beach SETZ, these costs will be prohibitive and are likely to mean development is not financially feasible.
- (f) **Approves** this report and attachments are shared with landowners in both areas.

3. **BACKGROUND**

- 3.1. The two areas in figures 1 and 2 below were rezoned as part of the Partially Operative District Plan:

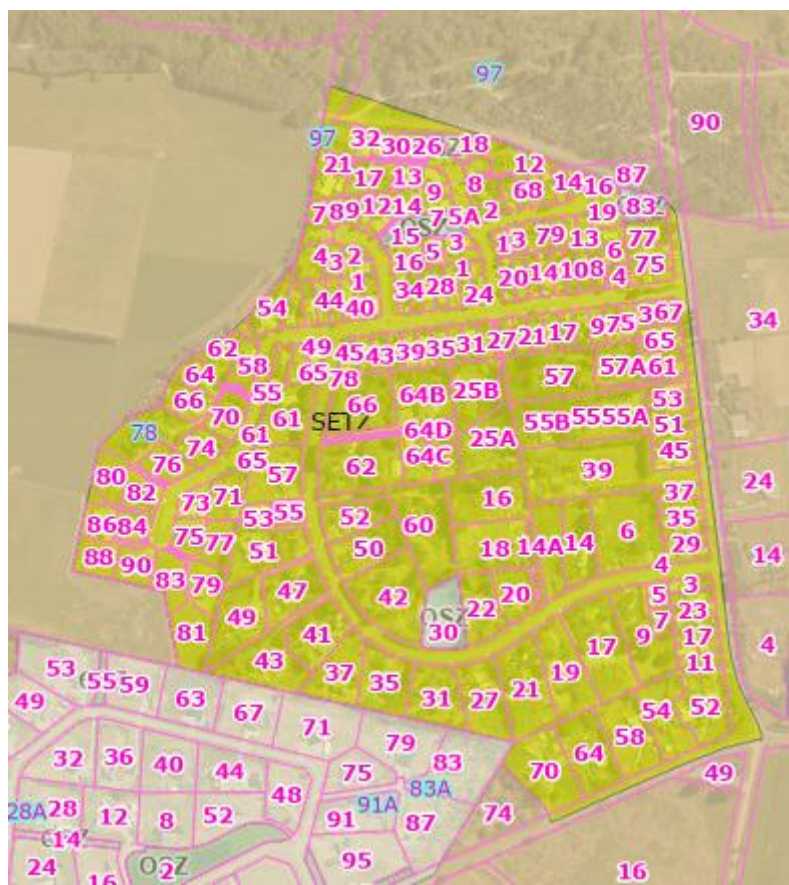


Figure 1: Waikuku SETZ, with subdivision to 600m² enabled

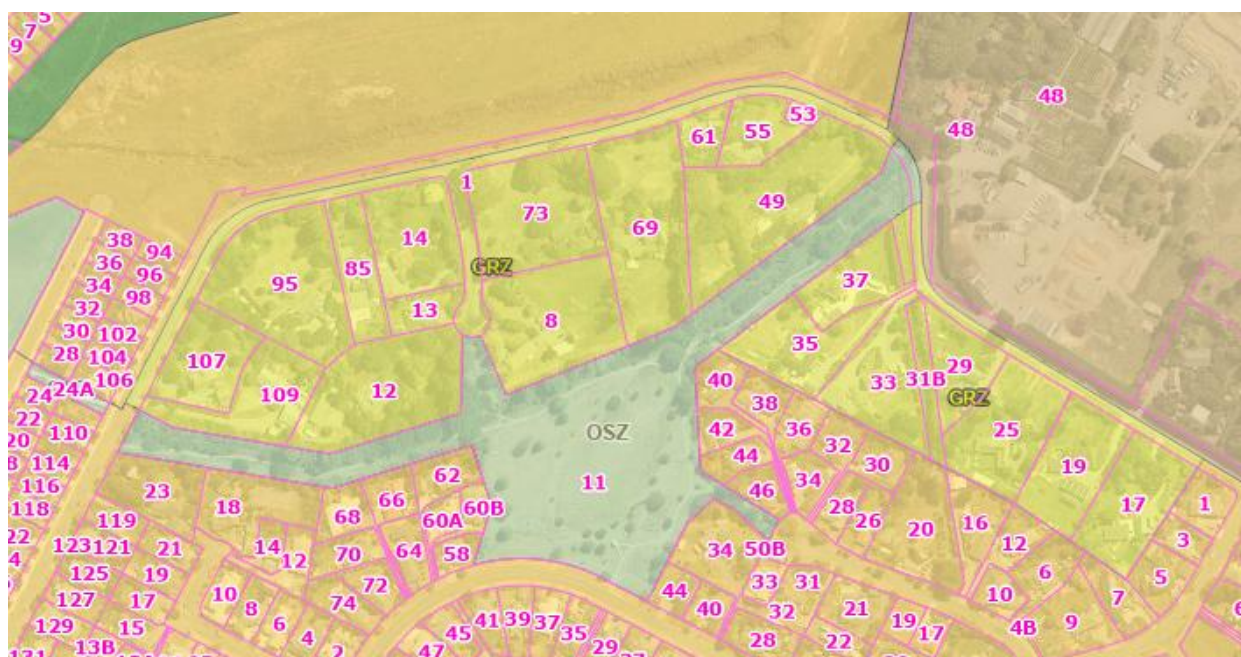


Figure 2: Chinnerys Road GRZ area (light yellow), with subdivision to 500m² enabled

- 3.2. Waikuku SETZ previously had a minimum lot size of 4,000m², and the Chinnery's Road GRZ area was zoned Rural Lifestyle Zone.
- 3.3. The rezoning enables growth in both areas which was previously not possible, allowing for approximately 100 additional lots in the Chinnerys Road GRZ area, and 290 additional lots in the Waikuku Beach SETZ area.

4. **ISSUES AND OPTIONS**

- 4.1. The two areas require servicing to enable development to the extent permitted by the PODP. The constraints are slightly different between the two areas, with Waikuku SETZ unable to develop with on-site “lot by lot” solutions whilst Chinnerys GRZ could progress with on-site “lot by lot” solutions to a certain extent. The issues and options in each area are explained further below.
- 4.2. The estimated costs of providing area-wide servicing solutions to both are summarised in the following table:

Service	Construction Cost Items	Total (includes P&G, professional fees, construction and funding contingency)
Waikuku SETZ		
Water	New bore: \$500,000 Replace pump station: \$500,000 Treatment: \$500,000 Reservoirs: \$500,000 Reticulation: \$360,000	\$3.9m
Sewer	Pump station: \$500,000 Reticulation: \$600,000	\$2.1m
Stormwater	13,500m ² SMA and reticulation: \$3.8m	\$7.3m
Roading	Urbanisation of roads to residential standard: \$1.2m	\$2.1m
Assuming 290 new lots, approx. cost per lot		\$54,000
Chinnery's Road GRZ		
Water	Reticulation: \$500,000	\$1m
Sewer	Pump stations: \$1.2m Reticulation: \$4.8m	\$9.6m
Stormwater	SMAs x3: \$700k Reticulation: \$900k	\$3.4m
Assuming 100 new lots, approx. cost per lot		\$66,500

The table above presents rounded high level cost estimates based on concept work done to date (refer reports at attachments i and ii). They are a guide only. P&G of 15%, construction contingency 10%, professional fees 12%, and funding contingency of 50% applied to estimated construction costs. Land purchase is not included – costs would need to be added.

- 4.3. A key challenge in both areas is the multiple land ownership. It is unlikely one landowner will have the resource to deliver the projects required on their own. Landowners would need to work together to coordinate development with the servicing upgrades required, if comprehensive servicing was to be pursued.
- 4.4. Alternatively, the Council could consider introducing funding via the next Long Term Plan to lead the investment in servicing upgrades for these areas. However, staff do not believe there is a good case for doing so, given the high levels of investment required for each area, which would translate to a high cost per property, which would mean that the likelihood of developments progressing would be low. If the Council made these investments, but development of the full area did not progress, the Council would be left to carry the cost of the investment made, which would ultimately fall on the wider community if not recovered.
- 4.5. While this is a risk each time the Council invests in upgrades to facilitate growth, the high level of investment and low likelihood of recovery in this case does not support this investment being made.

4.6. **Waikuku SETZ**

The sewer and water systems in this area are at capacity, unable to service further subdivision. Subdividing down to sections of 600m² means on-site sewer and water solutions (septic fields and water bores) are not viable due to their small size. Centralised upgrades are required to both, in addition to installation of a stormwater management system and roading upgrades (particularly to Allin Drive). Total cost of all upgrades is estimated at around \$15.5million (broken down in the table above).

4.7. **Chinnerys GRZ**

The sewer and water systems at Chinnerys GRZ have capacity to service subdivision, subject to some localised upgrades and potentially use of low-pressure sewer systems rather than gravity sewer which would be more conventional. If each development can manage its own stormwater on-site, the need for a centralised stormwater management system may be removed. However, the land falls away from Chinnerys Road and some lots are shaped towards each other. In practice, it is anticipated stormwater management on a lot-by-lot basis will be challenging, particularly for rear sections without frontage to Chinnerys Road. Development cannot worsen stormwater or flood flows to neighbouring land, and must achieve stormwater neutrality in the 10-year and 100-year events.

An area wide stormwater design would provide a better long-term solution for subdivision and future property owners. However, Council cannot require this of developers in the area. If a developer can demonstrate how the effects of the subdivision of their lot alone will be mitigated with on-site solutions, Council will not be able to refuse subdivision consent.

- 4.8. Due to the number of landowners, absence of Outline Development Plans and total costs to provide centralised servicing solutions to both areas, staff do not recommend Council leads these projects. The financial implications would be material. Council does not have budget, and there is currently no certainty on development timeframe to recover the cost. The costs are substantial and best met by developers – growth pays for growth.

Implications for Community Wellbeing

There are not implications on community wellbeing by the issues and options that are the subject matter of this report.

- 4.9. The Management Team has reviewed this report and support the recommendations.

5. **COMMUNITY VIEWS**

5.1. **Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in, the subject matter of this report.

5.2. **Groups and Organisations**

There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report, being the community in the Chinnerys GRZ and Waikuku SETZ areas. It is recommended that a link to this report be sent to the residents in these areas after consideration by the Utilities and Roading Committee.

5.3. **Wider Community**

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report.

6. **OTHER IMPLICATIONS AND RISK MANAGEMENT**

6.1. **Financial Implications**

There are not financial implications of the decisions sought by this report.

There would be financial implications of options not recommended by this report if the Council were to fund infrastructure projects to service these areas. For the reasons previously noted, this is not recommended.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts.

6.3 Risk Management

There are not risks arising from the adoption/implementation of the recommendations in this report.

6.3 Health and Safety

There are not health and safety risks arising from the adoption/implementation of the recommendations in this report.

7. CONTEXT

7.1. Consistency with Policy

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Authorising Legislation

Resource Management Act 1991 and Local Government Act 2002.

7.3. Consistency with Community Outcomes

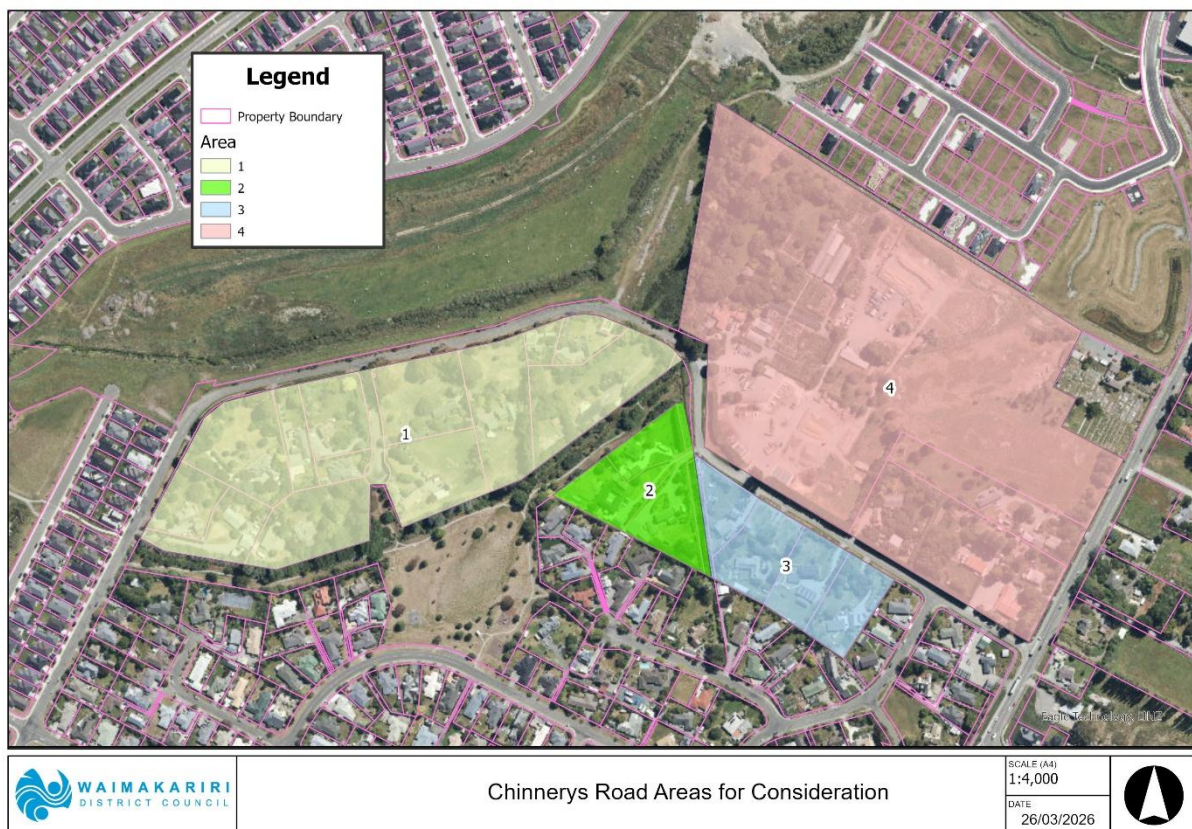
The Council's community outcomes are not relevant to the actions arising from recommendations in this report.

7.4. Authorising Delegations

As no decision other than to share this report with landowners is sought, no delegation is required. However, the servicing considerations for these areas is within the general scope of the Utilities and Roading Committee.

WAIMAKARIRI DISTRICT COUNCIL**MEMO****FILE NO AND TRIM NO:** WAT-03 / 260326084459**DATE:** 26 March 2026**MEMO TO:** Jennifer McSloy, Development Manager
Kalley Simpson, 3 Waters Manager**FROM:** Alex Meredith, Project Engineer – Network Planning**SUBJECT:** Chinnerys Road 3 Waters Servicing**1. Background**

An area in the northeast of Woodend on Chinnerys Road has recently been rezoned as “General Residential Zone” and subsequently landowners have recently shown interest in developing this land. However, there is not currently a plan for how to service this land with reticulated wastewater and stormwater. This memo investigates this issue. Figure 1 shows the area of interest. The recently rezoned land is labelled Areas 1-3. An additional area north of Chinnerys Road is also considered for wastewater servicing (Labelled Area 4 in Figure 1) as any solution for servicing should also make allowance for this area. For properties in Area 1 it is assumed that a road would be developed through the middle of the area, otherwise development down to general residential levels would be very challenging.

*Figure 1: Chinnerys Road Areas for Consideration*

2. Water Supply

Water supply sizing has already been considered for this area in previous studies and pipe sizing requirements for this area are shown in Figure 2. For more information see TRIM 231206196571. Only Project 18 - Chinnerys Road main upgrade would have to be paid for directly by this development area. Additionally, while Ravenswood is expected to be constructing a 300mm main along the northern section of Chinnerys Rd, it is assumed for this exercise that this will not be in place and that the development will have to fund a 150mm main along this length. Other relevant projects are either already proposed to be built by Ravenswood or will be constructed by Council and paid for by general Woodend Development Contributions.

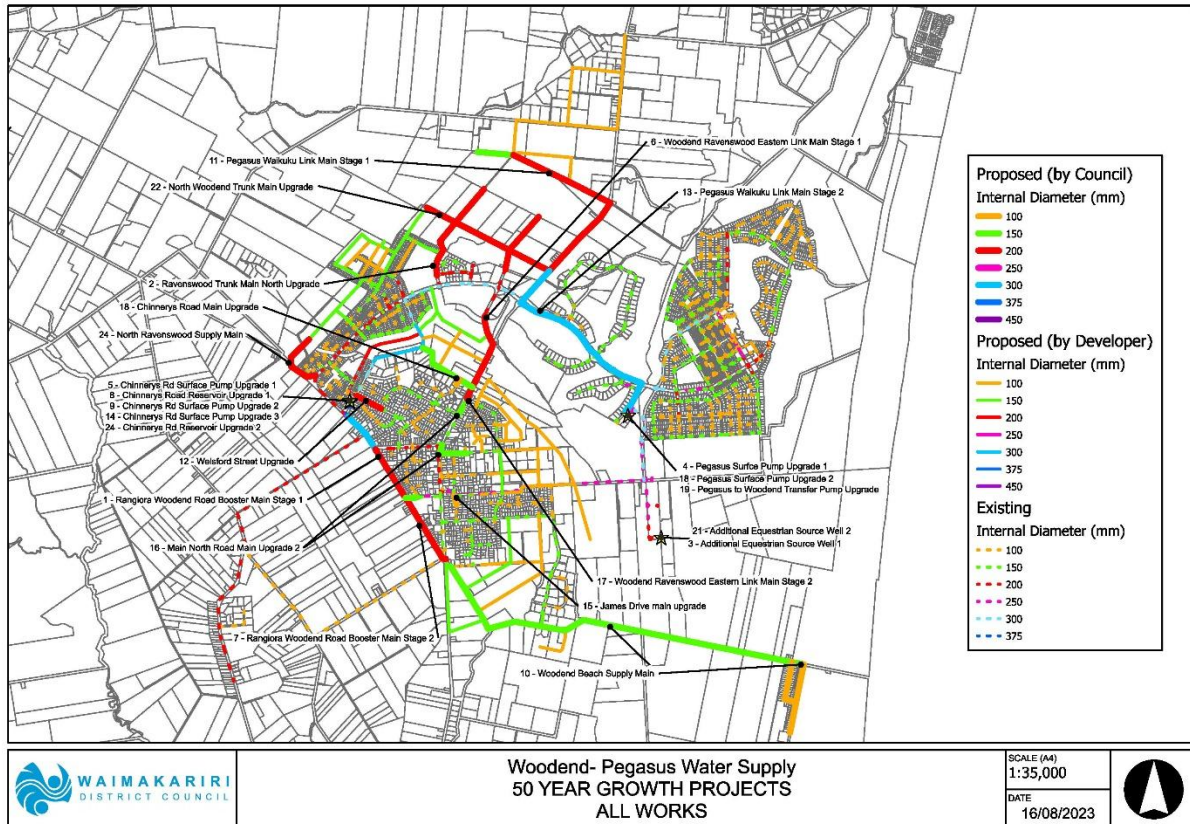


Figure 2: Water Supply Servicing Requirements

3. Stormwater Servicing

There is currently no formal stormwater network servicing these properties, including no means of treating or attenuating runoff from the increased impervious area. Based on locations of existing drains, 3 SMAs would likely be required to service the newly zoned area (1 for each of Areas 1, 2 and 3). In accordance with the WDC ECoP the SMAs would have to attenuate a 1 in 100-year rain event. A high-level sizing was carried out based on the rational method using a 1 in 100-year rain event (HIRDS v4, RCP8.5), a pre-development C factor of 0.3 and a post development impervious C factor of 0.65. These SMAs with their sizing is shown in Figure 3. In addition to this, once Area 4 develops it would also need to construct an additional SMA or alternatively develop a combined SMA with Area 3.

Figure 3 also shows pipe sizing leading to these SMAs. These are sized to carry flows based on the rational method using 1 in 10-year rain events (HIRDS v4, RCP 8.5). Pipes are sized using full-pipe Mannings equation with Mannings n of 0.013 and slopes base on existing LiDAR levels.

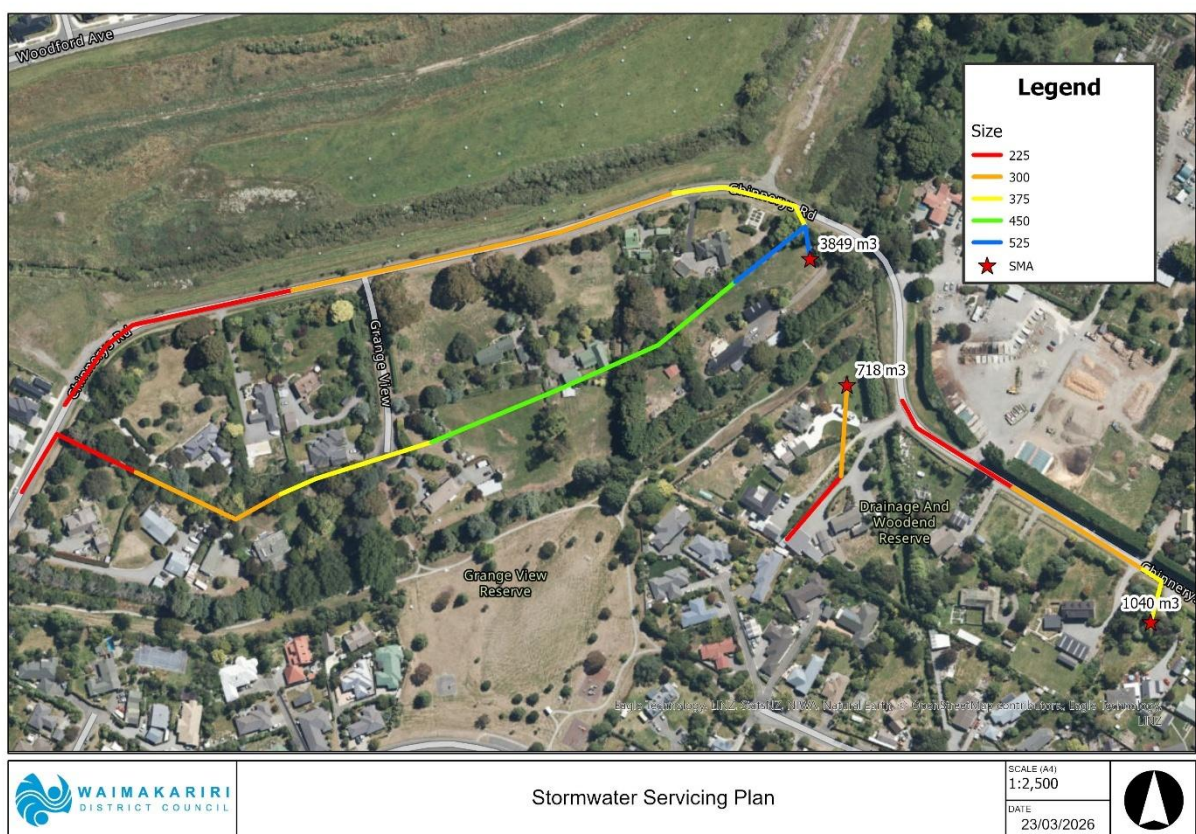


Figure 3: Stormwater Servicing Plan

4. **Wastewater Servicing**

There is currently a wastewater main through private property servicing some lots in this area. However, while there is some limited capacity in this main,

- It is at a grade below grade C in the ECoP
- It does not have enough capacity for the full development area and
- It should be relayed out of private property in the long term.

Properties in Area 1 and fronting Chinnerys Road may be able to discharge towards Ravenswood once Ravenswood Stage 6 is completed but as Ravenswood's system has not yet been designed and capacity and timing are not known it is assumed that this will not occur. All areas are assumed to be developed at a density of 12 lots/ha as per assumed GRZ zoning. Flows from these areas are then calculated as per ECoP standard flow calculation. Table 1 shows number of lots considered and flows.

Table 1: Flows and Lot Numbers considered for wastewater servicing

Area	Lots	Flow
Area 1 and fronting Chinnerys Road	17	1.3 l/s
Remainder of Area 1	50	3.8 l/s
Area 1	67	5.2 l/s
Area 2	13	1.0 l/s
Area 3	19	1.5 l/s
Area 4	113	7.1 l/s
All Areas excluding Area 1/ fronting Chinnerys Rd	195	10.7 l/s*
All Areas	212	11.4 l/s*

*note that individual areas do not sum to final flow as WWPF decreases with increased lot numbers

All gravity mains would be 150mm as this is the minimum size as per ECoP and flows are not large enough to require anything greater. These would need to discharge to two pumpstations. One of these would be for lots in Area 1 (not including those discharging to Ravenswood). This would then discharge to a second pumpstation servicing all remaining areas. This would then pump to the Gladstone WWPS.

There is not currently enough capacity for all planned development in the Gladstone/ Petries Road shared rising main. However, there is a planned upgrade to separate these two systems with a dedicated main from Petries Road. Once this happens there is predicted to be capacity in the Gladstone Road WWPS (along with all remaining planned development). In the short term while I&I is low and not all planned development has occurred, the Gladstone WWPS with the shared rising main is predicted to have capacity for this development, though the exact timing for when it will reach capacity depends on rate of I&I increase in newer areas and timing of developments.

There may be an option to improve this network by upsizing the rising main in order to combine it with the Main North Road WWPS and short term there may be some scope to discharge directly into the Main North Road WWPS for a small number of lots. However, this has not been investigated as part of this memo.

Rising mains are sized to ensure velocity between 0.8 and 1.2 m/s. Figure 4 shows all mains and pumping stations.

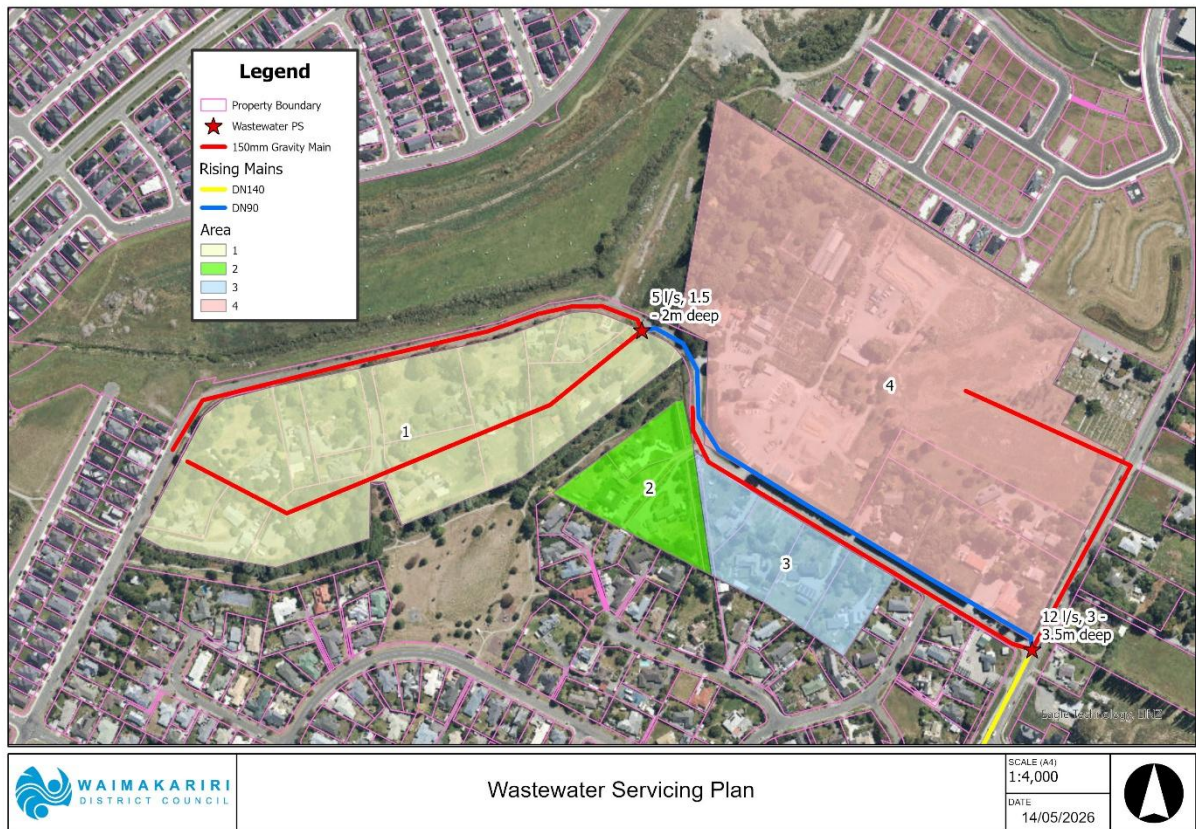


Figure 4: Servicing Plan for Wastewater

5. Costing

Table 2 to Table 4 show cost estimates for wastewater, stormwater and water supply servicing. These sum to a cost to service this area with water, wastewater and stormwater of \$14.1M (not including general DC rates) or \$66,500 per lot. It is noted that stormwater rates do not include sumps and sump leads which would likely be built as part of kerb and channel works and water rates do not include rider mains or internal servicing, which would be built by individual developments.

Table 2: Wastewater Costing

Item	Rate	Num	Cost	Rate Source
4 l/s Pumpstation	\$500,000	1	\$500,000	Order of magnitude based on current valuation of small WWPSs
11 l/s Pumpstation	\$675,000	1	\$675,000	Rakahuri PS
DN140 Rising Main	\$509	1236	\$629,124	Valuation rates
DN90 Rising Main	\$414	514	\$212,575	Valuation rates
Valves DN140	\$4,296	2	\$8,591	Valuation rates
Valves DN90	\$3,388	2	\$6,775	Valuation rates
Gravity Mains 150mm 1.5-2.0m	\$804	875	\$703,500	Valuation rates, poor soil, GWL 1m deep
Gravity Mains 150mm 2.0-2.5m	\$2,572	587	\$1,509,764	Valuation Rates, poor soil, GWL 1m deep
Gravity Mains 150mm 2.5-3.0m	\$2,741	206	\$564,646	Valuation Rates, poor soil, GWL 1m deep
Manholes 1.5-2	\$15,146	10	\$151,462	Valuation Rates
Manholes 2-2.5	\$16,087	7	\$112,607	Valuation Rates
Manholes 2.5-3	\$17,306	3	\$51,917	Valuation Rates
Subtotal			\$5,125,961	
P&G	15%		\$768,894	
Construction Contingency	10%		\$76,889	
Construction Cost			\$5,971,745	
Professional Fees	12%		\$716,609	
Funding Contingency	50%		\$2,985,872	
Total			\$9,674,226	

Table 3: Stormwater Costing

Item	Rate	Num	Cost	Comments
SMA's (all 3 summed)	\$119	5607m3	\$666,336	Ohoka SMA tendered rates + CPI
Gravity main 225mm	\$470	390	\$183,142	Valuation rates, assume shallow
Gravity main 300mm	\$554	476	\$263,900	Valuation rates, assume shallow
Gravity Main 375mm	\$674	222	\$149,716	Valuation rates, assume shallow
Gravity Main 450mm	\$795	207	\$164,651	Valuation rates, assume shallow
Gravity Main 525mm	\$928	73	\$67,730	Valuation rates, assume shallow
Manhole 1050mm	\$12,574	26	\$326,913	Valuation rates, assume shallow
Subtotal			\$1,822,389	
P&G	15%		\$273,358	
Construction Contingency	10%		\$27,336	
Construction Cost			\$2,123,083	
Professional Fees	12%		\$254,770	
Funding Contingency	50%		\$1,061,541	
Total			\$3,439,394	

Table 4: Water Costing

Item	Rate	Num	Cost	Rate Source
150mm ID Main	\$424	1066	\$451,941	Valuation rates
100mm ID Main	\$337	47	\$15,824	Valuation rates
150mm ID Valve	\$5,203	4	\$20,812	Valuation rates
100mm ID Valve	\$4,296	2	\$8,591	Valuation rates
Hydrants	\$3,906	7	\$27,342	Valuation rates
Subtotal			\$524,511	
P&G	15%		\$78,677	
Construction Contingency	10%		\$7,868	
Construction Cost			\$611,055	
Professional Fees	12%		\$73,327	
Funding Contingency	50%		\$305,527	
Total			\$989,909	

6. **Conclusion and Summary**

This memo considered the servicing of the Chinnerys Road development area as general residential zone with wastewater and stormwater. There is not currently servicing available for the full development area. Therefore, the following is assessed as being required:

- Three new SMAs to treat and attenuate stormwater
- Two new wastewater pumpstations with the first being north of Grange View Reserve and pumping to the second at the southeastern edge of the development area
- A DN90 wastewater rising main from the northern pumpstation to the southern one
- A DN140 wastewater rising main from the southern pumpstation to the Woodend WWTP
 - This may be able to pump to either Gladstone Road WWPS when upgraded or connect with the Stokes WWPS once build
- Gravity wastewater and stormwater mains through all roads including through a new road in the middle of Area 1
- A 150mm ID water main in Chinnerys Road connecting to Main North Road and mains from Ravenswood at the northwest of the development

These upgrades have been costed and are estimated to cost \$14.1M or \$66,500 per lot.

A key feature of this investigation is the need to construct an internal road through Area 1. This is considered necessary in order for gravity wastewater to be feasible and to ensure this area can be serviced with infrastructure downstream on Chinnerys Road. Alternative options to service this full area via Ravenswood or internally via Hewitts Road may be possible but these haven't been investigated as part of this report.

This investigation assumed costs would be shared equally with Area 4, however if separate Development Contribution areas were required for Area 4 then the costings in this report would need to be updated.

WAIMAKARIRI DISTRICT COUNCIL**MEMO**

FILE NO AND TRIM NO: WAT-03 / 260120008878

DATE: 13 February 2025

MEMO TO: Jennifer McSloy, Development Manager
Kalley Simpson, 3 Waters Manager

FROM: Alex Meredith, Project Engineer – Network Planning

SUBJECT: Capacity for Development in Waikuku SETZ (Allin Drive area)

1. Summary

The Allin Drive area in Waikuku Beach has recently been rezoned with a previous development constraint removed that now allows for up to 290 additional lots. This memo outlines a high-level assessment of required to service the development of this area if a subdivision of this extent occurs.

The investigation has found that both the downstream water and wastewater networks are effectively at capacity with no available connections on the wastewater network. The assessment indicated that there may be approximately 30 lots available in the water supply network but this is based on a high-level assessment, and the exact amount of spare capacity has not been assessed in detail. Although there may be some limited capacity on the water supply network, it is recommended that an upgrade is undertaken before any future development begins.

Additionally, no formalised stormwater network is present in this area so reticulation with treatment and attenuation would be required for development.

The following short-term upgrades would be required to allow any new lots to be developed in the Allin Drive area:

- A new bore is constructed with associated pump station upgrades at Waikuku Beach Campground
- An upgrade to the Kings Ave WWPS to take 20.4 l/s along with an upgrade to the rising main to 150mm ID and extending it to the Reserve Rd WWPS
- An SMA with an approximate volume of 13,500m³ to treat/ attenuate stormwater
- A full stormwater network from Allin Drive to the new SMA
- Urbanisation of Allin Drive including footpaths and kerb and channel

Additionally, the following medium-term upgrades would also need to be carried out to enable the full theoretical development of 290 additional lots:

- Upgrade the 100mm water main from the intersection of Allin Drive and Kings Ave to the Kings Ave water pumpstation to 150mm ID (required after approximately 55 lots connect)
- Upgrade the 150 mm wastewater gravity main from the intersection of Allin Drive and Kings Ave to the Kings Ave wastewater pumpstation to 225mm ID (required after approximately 200 lots connect)
- Upgrade the reserve road wastewater pumpstation to take 29.4 l/s (required after approximately 100 lots connect)

The lot numbers are very high level and exact numbers could be more or less than these.

High-level costing of all upgrades was carried out showing a total cost of \$15.5M and a per lot cost of \$54,000 for all upgrades based on all 290 potential lots developing. It is noted that this

costing only includes costs for council to recover and does not include individual servicing costs such as installing service connections or accessways.

2. Background

The Allin Drive subdivision was constructed approximately 40-50 years ago to create rural residential lots with average areas of approximately 6,000 m². The area was previously zoned RES3 with a development constraint applied that restricted development down to 4,000 m². This area has recently been rezoned as a settlement zone allowing development of lots down to 600m² with the development constraint now removed in the partially operative district plan. Figure 1 shows a plan of this area showing subdivision potential for each lot in this area under the latest zoning. This sums to 290 additional lots not including the Leggitts Park area that has been recently developed so is not included in this analysis. This memo investigates servicing capacity for this potential development of 290 lots.

3. Water Supply Servicing

3.1. Flow Requirements

The existing water supply model was run, and the 290 additional lots were added to the model to understand the total flow requirements for Waikuku Beach. As there is no above-ground storage in the scheme the existing bores need to be able to supply both peak hourly flow and firefighting flow without any attenuation storage. .



Figure 1: Allin Drive Subdivision Potential

Table 1 shows the total flow requirements.



Figure 1: Allin Drive Subdivision Potential

Table 1: Water Supply Flow Requirements

Scenario	Peak Hourly Flow	Firefighting Flow
Present Day	34 l/s	42 l/s
Present Day + Allin Drive Development	51 l/s	51 l/s

3.2. Reticulation

To determine the reticulation requirements, the headworks were modelled having a constant head allowing pressure and headloss in reticulation to be investigated independently of headworks. Both a firefighting flow and peak daily/ hourly flow scenario was run. Figure 2 shows pressure and headloss during peak hourly flow simulation. Mostly the reticulation can handle the full development; however, the circled 100mm pipe along Kings Ave would need to be upgraded to 150mm in the medium term to service the full potential development area. The model suggests there is currently capacity for approximately 55 lots to develop before this would be required.

The model does not show any issues with firefighting flow, apart from Leggitts Dr. This location shows firefighting already being tight due to a single 100mm feed. As the reason for this is localised, it would not be reasonable to turn down development due to it.

As the centre of the Allin Drive development area is too far from the nearest hydrant to comply with the firefighting code of practice, an additional 150mm main from the western wedge of Allin Drive through to the centre of the Allin Drive properties was considered to demonstrate that DN150 fire fighting mains along ROWs could be used to comply with urban fire fighting requirements. This was able to meet firefighting requirements indicating that firefighting is unlikely to be an impediment to development.

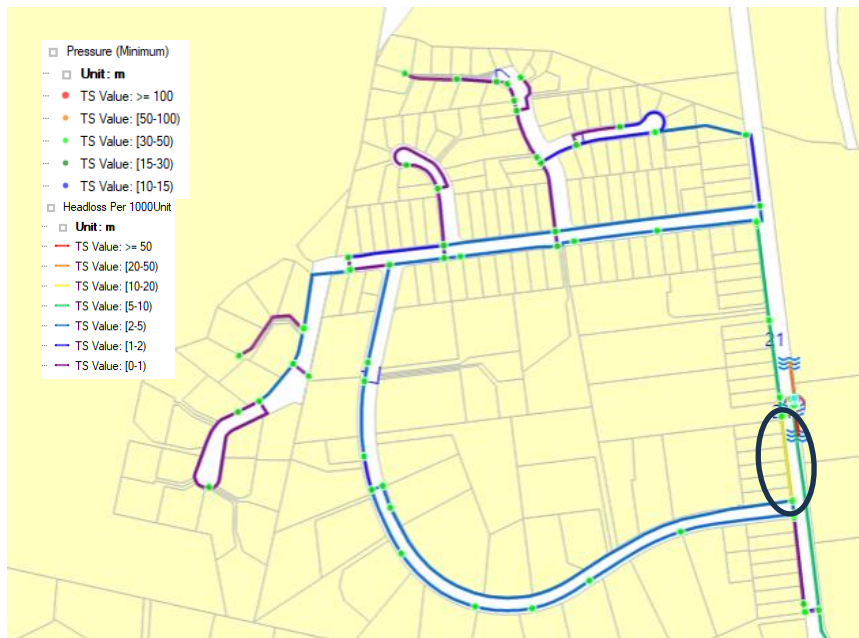


Figure 2: Pressure and Headloss during Peak Hourly Flow Simulation

Additionally, the 100mm water main in Allin Drive only has a rider main on one side of the road. It is recommended that as development occurs a DN63 rider main should be constructed such that a rider main is present on both sides of the road.

3.3. Headworks

Currently the Waikuku Beach scheme has two bores at Kings Ave and one at the Waikuku Beach Campground. All of these bores rely on artesian pressure to deliver water to surface pumps which pump directly into the network. No bore pumps or above-ground storage is present. To meet N+1 redundancy requirements the scheme should be able to deliver peak hourly flow and firefighting flow with any one bore or pump offline.

A 2007 test of the original Kings Ave bore shows the relationship between suction pressure at the surface pumps and flow rate (TRIM 171101118557) where WSP argued that it should not be operated with a suction pressure below -3m. This would allow for 30-35 l/s. This also matches with the capacity of the existing surface pumps with 1 standby and 2 duty pumps operating.

A second bore was drilled in 2018 at Kings Ave and this appears to have a similar capacity to the original bore based on drawdown tests from when it was drilled. With both of these operating, the surface pumps would limit the flow to approximately 40 l/s from 2 pumps and one standby, or 50 l/s from all 3 pumps without a standby.

Original drawdown testing of the campground bore appears to have only been undertaken for up to 14 l/s and the pumps appear to have been designed for this.

Based on this information Table 2 shows current capacity of headworks. This shows that taking the worst-case scenario with 1 well unavailable for N+1 there is currently 44 l/s capacity. This leaves an approximate figure of 2 l/s capacity, or approximately 30 lots. However, these numbers are based on a high-level approximation and the exact number of lots available may be more or less than this if further testing was undertaken. As this number of lots is an estimation only and is low it is recommended that upgrades are carried out before further development of this area.

If upgrades were to be carried out to allow Allin Drive to develop, this would likely involve drilling an additional well at Waikuku beach Campground and upgrading both the surface pumps and UV at this location to take 2 wells at this location.

It is noted that this is a desktop study in some cases based on reasonably old data. It would be beneficial to carry out well tests to confirm these findings.

Table 2: Summary Well Capacity

Scenario	Flow Capacity
All 3 Wells (No N+1)	54 l/s
2 Kings Ave Wells	50 l/s
1 Kings Ave Well + Campground Well	44 l/s

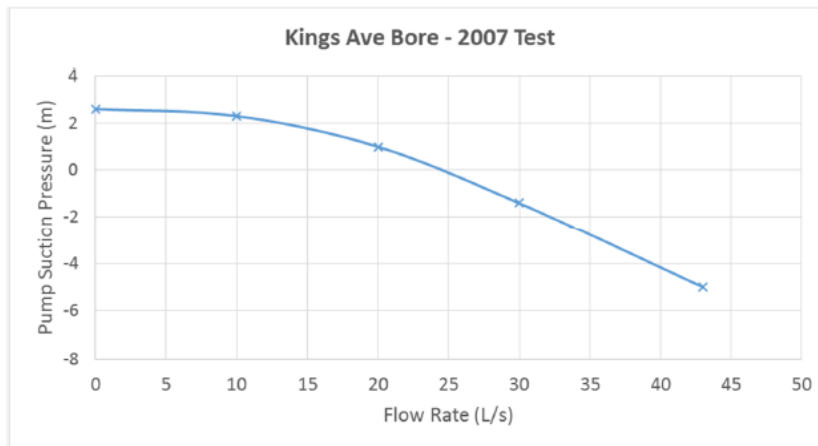


Figure 3: Kings Ave Bore Test Results 2007

4. Wastewater Capacity

4.1. Flow Requirements

The Allin Drive area drains to the Kings Ave wastewater pumpstation (WWPS) which discharges to a gravity manhole upstream of the Reserve Rd WWPS along with flows from the North Oval WWPS. The existing wastewater model shows current flows being close to design flows calculated using the WDC engineering code of practice (ECOP) so this is used to determine pre and post-development flows. Table 3 shows current day and post-development flows at different locations in the network.

Table 3: Flows to Kings Ave WWPS

Scenario	PWWF to Kings Ave	to PWWF to Kings Ave + North Oval	PWWF from Reserve Rd
Present Day	9.5	14.3 l/s	18.5 l/s
Present Day + Allin Drive Development	20.4	25.2 l/s	29.4 l/s

4.2. Reticulation

Based on a Colebrook White calculation and ensuring a freeboard of at least 500mm the 150 mm main in Kings Ave from the southern end of Allin Drive to the Kings Ave WWPS would have to be upgraded to 225mm for the full Allin Drive development. This location is highlighted in purple in Figure 4. This would not be required until almost the full development had occurred. However, it is close to the section of water main that would need to be upgraded as discussed earlier so these would likely both be upgraded at once if full development of Allin Drive was being considered.



Figure 4: Location of Main Required to Upgrade to 225mm for full Allin Drive Development

4.3. Headworks

SCADA data from the Kings Ave WWPS in Figure 5 show that flows from this station are generally between 9 and 10 l/s. This indicates that the flows are currently close to the existing demand and this was backed up by a comparison between expected losses through a 100mm main and the existing pump curve.

Additionally, the rising main from the Kings Ave WWPS is 100mm AC. Table 4 shows the expected velocity in this at various flow rates between the existing demand and the demand with full Allin Drive development. The design velocity in the ECoP says that velocities should be between 0.8 and 1.2 m/s but that a maximum velocity of 1.5 m/s should be allowed. Based on this, the rising main is already at the maximum of the preferred design range and would have to be upgraded for any further development of Allin Drive. Therefore, it is recommended that before any development of Allin Drive occurs the Kings Ave pumpstation and rising main should both be upgraded to 20.4 l/s and 150 mm ID, respectively. It is noted that this rising main is close to being due for renewal regardless.

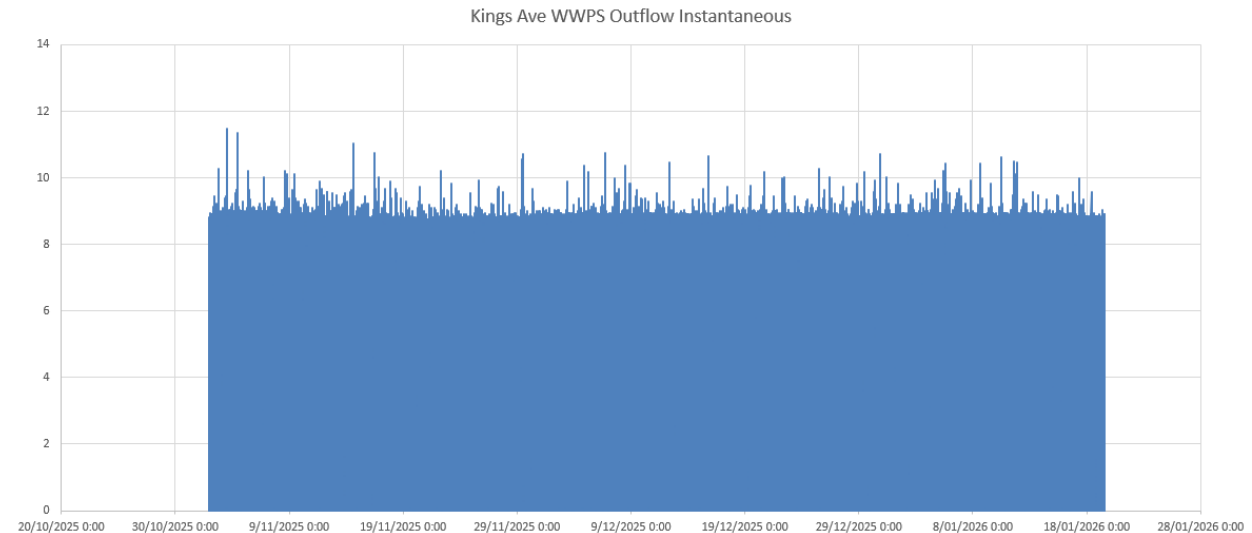


Figure 5: Flows from SCADA for Kings Ave WWPS

Table 4: Relationship Between Flow and Velocity in 100mm Rising Main

Flow	Velocity
9.5 l/s	1.2 m/s
12.5 l/s	1.6 m/s
15 l/s	1.9 m/s
20.4 l/s	2.6 m/s

The 175mm and 200mm gravity main from the existing discharge point of the Kings Ave pumpstation to the Reserve Rd WWPS would also be undersized once the full Allin Drive development occurs. This could be mitigated by constructing the new rising main to the Reserve Rd WWPS rather than to the existing discharge manhole in Bridge St. This would also allow the old AC gravity mains to be replaced with 150mm mains when they are renewed.

Finally, the reserve Rd pumpstation takes wastewater from the full Waikuku Beach area to the Waikuku Beach WWTP. With flow from full subdivision of Allin Drive the rising main would have a velocity of 0.94 m/s so this does not need to be upsized for the Allin Drive development. However, while a full analysis of this station has not been undertaken, Figure 6 from SCADA shows that the pumpstation does not currently operate at the full required flow of 29.4 l/s so the pumps would likely require an upgrade at this station for full development of Allin Drive.

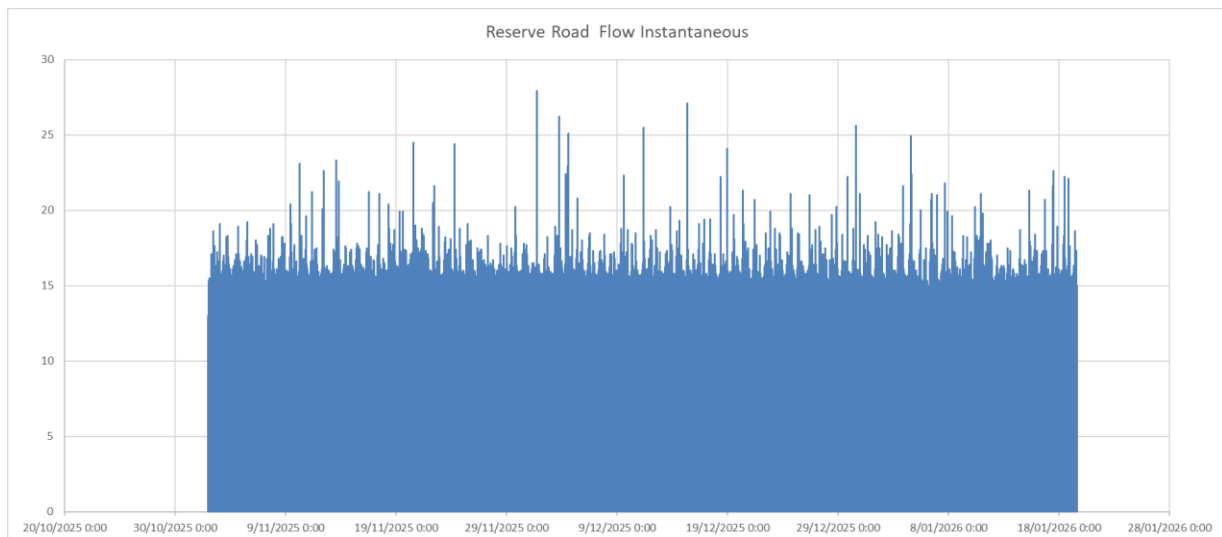


Figure 6: SCADA Data from Reserve Rd WWPS

5. Stormwater

There is no formal stormwater network currently in the Allin Drive area, including no means of treating or attenuating runoff from the increased impervious area associated with further development of Allin Drive. In accordance with the WDC ECoP the SMA would have to attenuate a 1 in 100-year rain event. A high-level sizing based on a 1 in 100-year rain event, a pre-development impervious area of 30% and a post development impervious area of 65% the SMA would require a volume of 13,500m³.

In order to deliver primary runoff to the SMA, pipes were sized for a 1 in 10 year rain event to carry water from the undeveloped parts of Allin Drive to the land south of Waikuku beach Road where the SMA is assumed to be required for treatment and attenuation. The pipe sizing is shown in Figure 7.

6. Roading

While detailed analysis of roading requirements is not carried out in this report, if full development of Allin Drive was to occur the road should be urbanised with a footpath on both sides of the road and kerb and channel.

7. Costing

Table 5 to Table 8 show high level costing of water, wastewater, stormwater and roading requirements based on Sections 3-6 above. Costs are based on a combination of recent contract rates and valuation base rates. Where assets are proposed to be replaced and upsized (such as the Kings Avenue WWPS) the current depreciation of the assets is removed as these costs should be paid for from Council renewals funds.

These give a total servicing cost of \$15.5M or \$54,000 per lot assuming all 290 lots develop. It is noted that this costing only includes costs for council to recover and does not include individual servicing costs such as installing service connections or accessways.



Figure 7: Stormwater Pipe Sizing

Table 5: High-Level Costing of Water Upgrades

Item	Rate	Num	Cost
New Bore at Waikuku Beach Campground	\$472,218	1	\$472,218
Replace Pumpstation to Double Flow at Campground	\$481,279	1	\$481,279
Treatment	\$500,000	1	\$500,000
Storage reservoirs	\$500,000	1	\$500,000
Depreciation collected on Campground pumpstation	- \$211,143	1	-\$211,143
DN63 Rider Main through full ringroad (both sides where there is none)	\$219	1269	\$278,266
DN180 PE Main along Kings Ave	\$422	121	\$51,064
Depreciation collected on 100mm Kings Ave Main	-\$35,319	1	-\$35,319
50 mm Valves	\$3,372	10	\$33,720
150mm Valve	\$5,179	2	\$10,358
Subtotal		\$2,080,444	
P&G	15%	\$312,067	
Construction Contingency	10%	\$31,207	
Construction Cost		\$2,423,718	
Professional Fees	12%	\$290,846.16	
Funding Contingency	50%	\$1,211,859	
Total		\$3,926,423.16	

Table 6: High-Level Costing of Wastewater Upgrades

Item	Rate	Num	Cost
Pumpstation Kings Ave Pumpstation Upgrade	\$507,600	1	\$507,600
Kings Ave Pumpstation Depreciation Captured	- \$123,990	1	-\$123,990
DN180 Rising Main	\$588	863	\$507,444
DN180 Stream Crossing	\$1,764	60	\$105,840
Rising Main Depreciation Collected	- \$190,001	1	-\$190,001
DN225 Gravity Main inc Extra Overs	\$2,497	115	\$287,155
Kings Ave Gravity Main Depreciation Captured	- \$104,608	1	-\$104,608
Air Valve 150	\$4,478	1	\$4,478
Scour Valve 150	\$9,163	1	\$9,163
Isolation Valve	\$5,179	3	\$15,537
Manholes	\$16,013	3	\$48,038
Upgrade Reserve Rd Pumps	\$75,000	1	\$75,000
Subtotal		\$1,141,657	
P&G	15%	\$171,249	
Construction Contingency	10%	\$17,125	
Construction Cost		\$1,330,030	
Professional Fees	12%	\$159,604	

Funding Contingency	50%	\$665,015	
Total		\$2,154,649	

Table 7: High-level Costing of Stormwater Upgrades

Item	Rate	Num	Cost
SMA (rate per m2)	\$119	13500	\$1,604,340
Gravity main 225mm	\$470	72	\$33,811
Gravity main 300mm	\$554	372	\$206,314
Gravity Main 375mm	\$674	38	\$25,478
Gravity Main 450mm	\$795	191	\$152,047
Gravity Main 525mm	\$928	186	\$172,378
Gravity Main 600mm	\$1,084	52	\$56,099
Gravity Main 675mm	\$1,229	115	\$141,673
Gravity Main 750mm	\$1,385	124	\$172,053
Gravity Main 825mm	\$1,565	257	\$402,518
Gravity Main 900mm	\$1,746	215	\$375,667
Gravity Main 1050mm	\$2,083	64	\$132,939
Manhole 1050mm	\$12,574	18	\$226,324
Manhole 1200mm	\$13,763	6	\$82,578
Manhole 1350mm	\$14,874	3	\$44,622
Sump	\$2,630	18	\$47,340
Subtotal			\$3,876,183
P&G	15%		\$581,427
Construction Contingency	10%		\$58,143
Construction Cost			\$4,515,753
Professional Fees	12%		\$541,890
Funding Contingency	50%		\$2,257,876
Total			\$7,315,520

Table 8: High-Level Costing of Roading Urbanisation

Item	Rate	Num	Cost
Road Urbanisation	\$1,406	827	\$1,162,762
Subtotal			\$1,162,762
P&G	15%		\$174,414
Construction Contingency	10%		\$17,441
Construction Cost			\$1,354,618
Professional Fees	12%		\$162,554
Funding Contingency	50%		\$677,309
Total			\$2,194,481

8. Conclusions

This memo considered the upgrades required to service the Allin Drive development with subdivision down to 600 m². The investigation has found that both the downstream water and wastewater networks are effectively at capacity with no available connections on the wastewater network. There may be approximately 30 lots available in the water supply network but this is based on a high-level assessment, and the exact amount of spare capacity has not been assessed in detail. Although there may be some limited capacity, it is recommended that an upgrade is undertaken before any future development begins. Additionally, no formalised stormwater network is present in this area so reticulation with treatment and attenuation would be required for development.

The following short-term upgrades would be required to allow any new lots to be developed in the Allin Drive area:

- A new bore is constructed with associated pump station upgrades at Waikuku Beach Campground
- An upgrade to the Kings Ave WWPS to take 20.4 l/s along with an upgrade to the rising main to 150mm ID and extending it to the Reserve Rd WWPS
- An SMA with an approximate volume of 13,500m³
- A full stormwater network from Allin Drive to the new SMA
- Urbanisation of all roads including footpaths and kerb and channel

Additionally, the following medium-term upgrades would also need to be carried out to enable the full theoretical development of 290 additional lots:

- Upgrade the 100mm water main from the intersection of Allin Drive and Kings Ave to the Kings Ave water pumpstation to 150mm ID (required after approximately 55 lots connect)
- Upgrade the 150 mm wastewater gravity main from the intersection of Allin Drive and Kings Ave to the Kings Ave wastewater pumpstation to 225mm ID (required after approximately 200 lots connect)
- Upgrade the reserve road wastewater pumpstation to take 29.4 l/s (required after approximately 100 lots connect)

The lot numbers are very high-level, and exact numbers could be more or less than these.

High-level costing of all upgrades was carried out showing a total cost of \$15.5M and a per lot cost of \$54,000 for all upgrades based on all 290 potential lots developing as per Table 9 below. It is noted that this costing only includes costs for council to recover and does not include individual servicing costs such as installing service connections or accessways.

Table 9: Summary of Costs

Service	Total Cost	Cost per lot
Water	\$3,926,423.16	\$13,500
Wastewater	\$2,154,649	\$7,500
Stormwater	\$7,315,520	\$25,225
Roading	\$2,194,481	\$7,600
Total	\$15,591,073	\$54,000

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR INFORMATION**

FILE NO and TRIM NO: WAT-10-14-01 / 260629152405

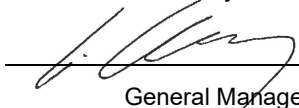
REPORT TO: UTILITIES AND ROADING COMMITTEE

DATE OF MEETING: 14 July 2026

AUTHOR(S): Sophie Allen – Water Environment Advisor

SUBJECT: Private Well Study Results for 2025

ENDORSED BY:
(for Reports to Council,
Committees or Boards)


General Manager


Chief Executive

1. SUMMARY

- 1.1. The purpose of this report is to update the Utilities and Roading Committee on the Private Well Study nitrate test results for 2025 and to compare the results to those from previous years 2019-2024.
- 1.2. Waimakariri District Council (WDC), alongside Environment Canterbury and Canterbury District Health Board, were recommended in the Zone Implementation Programme Addendum (ZIPA) to develop a programme for testing and reporting of water quality in private drinking water supply wells. This testing is particularly for the contaminant nitrate, due to a developing field of research on the effects of high nitrate consumption.
- 1.3. The results from the 2025 study ranged from <0.05 - 9.6 mg/L nitrate-nitrogen, all below the Maximum Acceptable Value (MAV) in the Drinking Water Standards for New Zealand (2022) for nitrates of 11.3 mg/L nitrate-nitrogen, however not all well owners that are part of the study submitted samples in 2025.
- 1.4. WDC community drinking water supplies are all compliant with the Drinking Water Standards for New Zealand (2022) for nitrates and are not examined in this study, which has a focus on private wells.
- 1.5. Studies were initially carried out for wells in the Eyreton and Cust sampling areas from 2019 onwards, with Carleton and Swannanoa as sampling areas that were added to the study from 2021. Nitrate and other chemical parameters were sampled for 2025 in 33 wells in total: seven in Cust, ten in Eyreton, seven in Carleton and nine in Swannanoa.
- 1.6. The nitrate mean (average value) and median (middle value) for Cust and Eyreton samples has fluctuated over the 2019-25 period. It is not recommended yet to conclude any long-term trend in nitrate levels from the longest data sets (seven data points for each well); noting that 8-10 data points are recommended as a minimum for a Mann Kendall statistical trend analysis.

- 1.7. Carleton and Swannanoa areas were sampled for the first time in the 2021 study, with nitrate medians lower than that found for Cust and Eyreton. The mean and median results for the Swannanoa area decreased during the study period 2021-2024, but increased slightly in 2025. The mean and median for Carleton has fluctuated over the period 2021-2025.
- 1.8. Note that not all wells were resampled each year over the 2019-2025 period, with some well samples not being submitted each year consistently by the property owner.
- 1.9. It should be noted that private wells that are domestic self-suppliers do not need to demonstrate compliance with the standards except at the building consent stage, however, are used for guidance values in this report.
- 1.10. A median value of half of the MAV (5.65 mg/L) has been set as a target in Plan Change 7 of the Canterbury Land and Water Regional Plan for private water supply wells. 67% of the wells in Eyreton, 57% in Cust, 29% in Carleton and 11% in Swannanoa were above half the MAV (5.65 mg/L) for nitrate-nitrogen in the 2025 study. The median nitrate concentrations for Eyreton and Cust, as sampled in the 2025 study exceeds the limit of a median of 5.65 mg/L nitrate-nitrogen (half of the MAV). This is similar to findings for previous years. However, Carleton and Swannanoa median nitrate concentration for the 2025 study met the target, as they were less than 5.65 mg/L (half of the MAV).
- 1.11. In the 2025 study as in previous years, a very weak correlation was found between the increasing well depth and decreasing nitrate levels. Other factors such as geochemical processes, nitrate recharge sources and date of sampling likely play a larger role than depth.
- 1.12. The New Zealand Ministry of Health has begun a technical review into the health effects of nitrate in drinking water, such as for colorectal cancer. In September 2025, Environment Canterbury carried a motion to declare a nitrate emergency, recognising the need for regional leadership to address nitrate levels in groundwater.
- 1.13. A pamphlet about managing a private well water supply to inform well owners has been updated by Waimakariri District Council, with the support of the groundwater team at Environment Canterbury.
- 1.14. Other chemical parameters analysed in the 2025 study are not presented in this report for brevity except for noting exceedances of limits.
- 1.15. This nitrate study is intended be repeated in spring 2026 to allow for assessment of trends over time. Well owners from the 2019-25 sample rounds will be approached again for repeat annual sampling.

Attachment:

- i. Managing a Private Well Supply (TRIM 230912141978)

2. **RECOMMENDATION**

THAT the Utilities and Roothing Committee:

- (a) **Receives** Report No. 260629152405.
- (b) **Notes** the findings of the 2025 study, with no wells sampled that were above the nitrate-nitrogen Maximum Acceptable Value (MAV) set in the Drinking Water Standards for New Zealand (2022). Of the wells sampled, 67% of the wells in Eyreton, 57% in Cust, 29% in Carleton and 11% in Swannanoa sampling areas were above half of the MAV (5.65 mg/L).
- (c) **Notes** that the median nitrate concentration for the Cust and Eyreton sampling areas, as sampled in the 2025 study, exceed the limit of a median of 5.65 mg/L nitrate-nitrogen set in Plan Change 7 of the Canterbury Land and Water Regional Plan (Schedule 8) for private water supply wells, while Swannanoa and Carleton sampling areas did meet this limit.
- (d) **Notes** that Waimakariri District Council and Environment Canterbury staff will continue to raise awareness of the health impacts of high nitrates, and to encourage private well owners to test water regularly, including updating and wider distribution of the publication of a 'managing a private well supply' pamphlet for the District.
- (e) **Notes** that Waimakariri District Council proposes to repeat this study in spring 2026, with 10 wells in each of the four sampling areas (40 wells total). Well owners from the previous sample rounds will be approached for repeat annual sampling, to allow for assessment of trends over time.
- (f) **Notes** that statistically robust Mann Kendall trends for nitrate concentration over time are not able to be concluded from data for only seven years, or five years of data for Swannanoa and Carleton sampling areas.
- (g) **Circulates** this report to the Council and Community Boards for information.

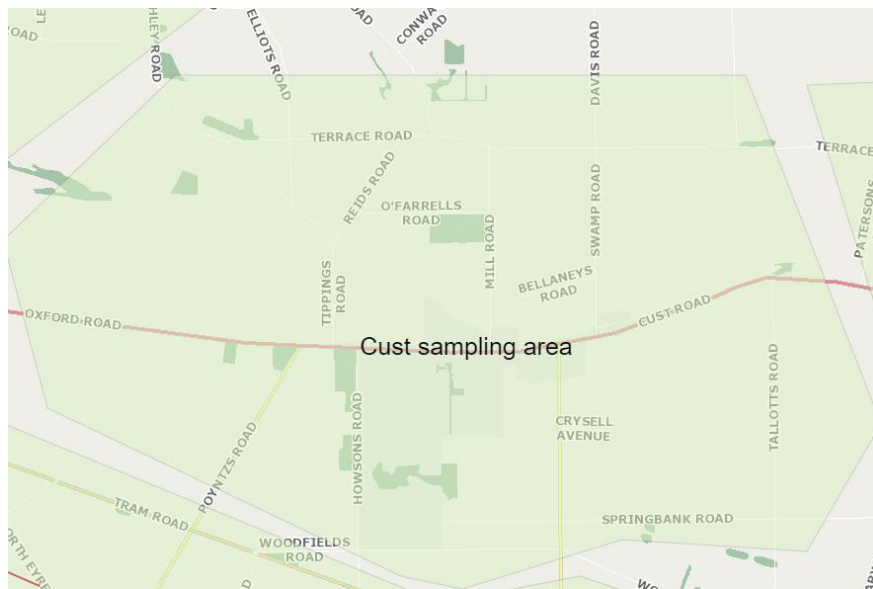
3. **BACKGROUND**

- 3.1 Drinking-water supplies to more than one household are ultimately the responsibility of the owner or operator to provide a duty of care under the Water Services Act (2021). Domestic self-suppliers are not required to test or monitor their supply under the Water Services Act (2021) however are strongly encouraged to do so.
- 3.2 Drinking-water safety is also a joint responsibility of territorial authorities, the Regional Council (Environment Canterbury) and Te Whatu Ora Community and Public Health. Environment Canterbury has a regulatory role to protect drinking water sources. Territorial Authorities, such as WDC, manage the quality of water delivered to the property for public supplies through management of the supply, storage, and distribution network. For private supplies the supplies are the responsibility of the individual property owner. WDC has a role in the issuing of a resource consent for new developments (which will specify how water is to be sourced) and issuing of a building consent for new dwellings which confirms that the water is potable at the time of issuing the consent. Te Whatu Ora manages the impact of the water quality on public health and can give advice on the health impacts of water quality.
- 3.3 The Water Services Authority - Taumata Arowai, is the authority responsible for drinking water regulation-related activities in New Zealand. It is the role of Taumata Arowai to set the MAV for nitrate-nitrogen in the Drinking Water Standards for New Zealand based on a review of scientific literature.

- 3.4 The purpose of the private well study is to work towards implementing the Zone Implementation Programme Addendum (ZIPA) Recommendation 3.16, adopted by Council in December 2018. Recommendation 3.16 states 'That Environment Canterbury, Waimakariri District Council and Canterbury District Health Board work together to:
- Develop a programme for testing and reporting of water quality in private drinking water supply wells, and
 - Raise awareness of health impacts from high nitrates in drinking water.'
- 3.5 A pilot study of nitrate levels in private wells in the Eyreton and Cust areas was carried out in late 2019 and late 2020, by WDC for nitrate and a range of other chemical parameters. Carleton and Swannanoa were added to the study in 2021. Refer to Maps 1-4 for the definition of the Eyreton, Cust, Carleton and Swannanoa sampling areas.
- 3.6 Eyreton (Map 1) and Cust (Map 2) were recommended as the two areas for the pilot study in 2019 due to previous high nitrate levels reported in Environment Canterbury monitoring wells and reports from private well owners. Nitrate levels had been reported to Council in 2018, by private well owners in the Eyreton area, that were close to the Maximum Acceptable Value (MAV) of 11.3 mg/L of nitrate-nitrogen as defined in the Drinking Water Standards for New Zealand (2022).
- 3.7 The sampling areas of Carleton (Map 3) and Swannanoa (Map 4) were added to the study in 2021. These areas were selected as areas that will be modelled by Environment Canterbury groundwater scientists in preparation for Plan Change 7 of the Canterbury Land and Water Regional Plan to potentially see the greatest future rises in nitrate-nitrogen levels within the Waimakariri Water Zone.



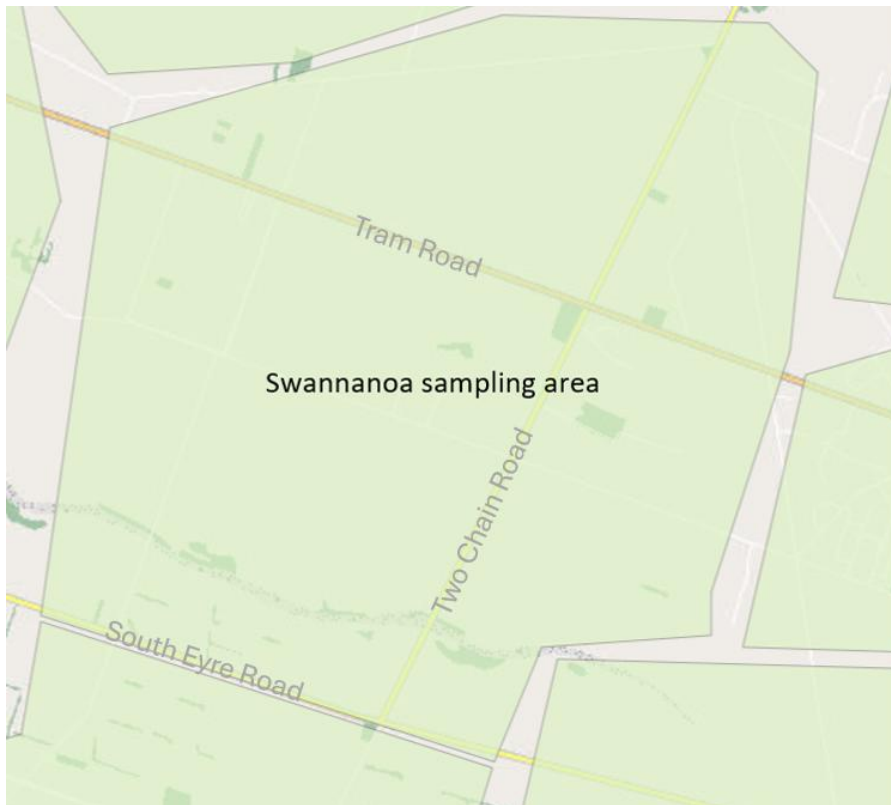
Map 1: Eyreton private well sampling area for groundwater within the Waimakariri Water Zone, as defined in the Zone Implementation Programme Addendum (ZIPA)



Map 2: Cust private well sampling area for groundwater within the Waimakariri Water Zone, as defined in the Zone Implementation Programme Addendum (ZIPA).



Map 3: Carleton private well sampling area for groundwater within the Waimakariri Water Zone, as defined in the Zone Implementation Programme Addendum (ZIPA).



Map 4: Swannanoa private well sampling area for groundwater within the Waimakariri Water Zone, as defined in the Zone Implementation Programme Addendum (ZIPA).

4. ISSUES AND OPTIONS

- 4.1. The nitrate concentrations for Cust and Eyreton wells, as sampled in the 2025 study do not meet the limit of a median of 5.65 mg/L nitrate-nitrogen in Plan Change 7 of the Canterbury Land and Water Regional Plan for private water supply wells, similar to findings from 2019-24. These study findings have been shared with the Environment Canterbury Groundwater Team.
- 4.2. The nitrate-nitrogen median measured for Cust was 7.7 mg/L, similar to findings from 2019-2024 (see Figure 1). Eyreton wells sampled had a median of 6.3 mg/L, similar to findings in 2019 and 2021-23, but higher than the 2020 and 2024 study results. The Eyreton median excludes a well that was already known to have a high nitrate level, to avoid sampling bias of results. Carlton wells sampled had a median of 1.24 mg/L which was between results from previous years (3.78 mg/L in 2021, 0.78 mg/L in 2022, 1.86 mg/L in 2023, 4.0 mg/L in 2024). The Swannanoa area median was 3.9 mg/L, which was within the range of previous years (5.62 mg/L in 2021 and 4.3 mg/L in 2022, 3.25 mg/L in 2023, and 2.9 mg/L in 2024). Note that wells were selected based on a geographic spread over an area and for a range of well depths. Results for individual wells is shown in Figures 2-5 below.

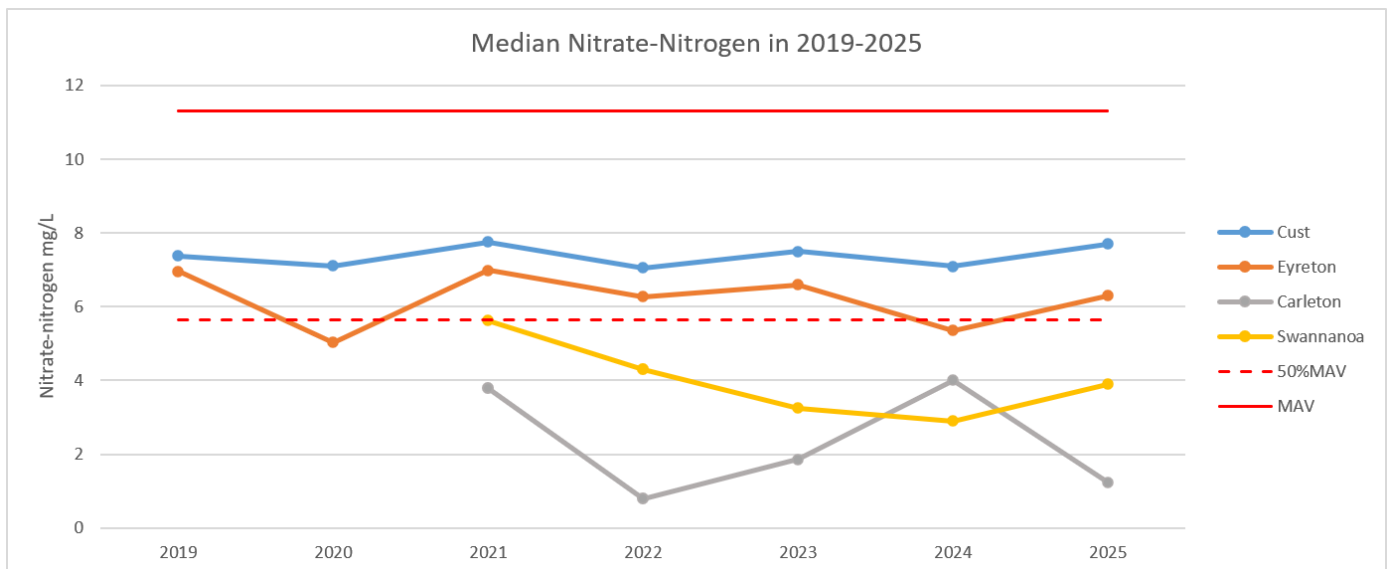


Figure 1: Median nitrate-nitrogen (mg/L) found in wells for the private well study 2019-2025 for Eyreton, Carleton, and Swannanoa. Red dotted indicates ½ MAV for nitrate-nitrogen (5.65 mg/L). One well was excluded from the median calculation in Eyreton as high nitrate levels were already known to be present before the study.

Engagement with Private Well Supply Owners

- 4.3. WDC staff have collaborated with Environment Canterbury to produce a well testing advice booklet (Attachment i), which advises on testing of water, as well as mapping indicative areas where issues such as high nitrate and arsenic could be an issue for proposed new wells. Updated versions of the groundwater quality maps have been provided by Environment Canterbury for this booklet. This pamphlet has also been updated to add in information about the Water Services Act (2021), and requirements for drinking water suppliers. This includes those who supply more than 25 people or have a commercial premise (i.e. not a domestic supply). Maps of common groundwater contaminants have also been updated.
- 4.4. In 2025, Environment Canterbury launched a targeted communications campaign to promote more regular water testing by private well owners of their supplies. Information has been provided on an Environment Canterbury webpage; <https://www.ecan.govt.nz/your-region/your-environment/water/drinking-water>. In September 2025, the Environment Canterbury Regional Delivery Committee was presented with our Drinking Water Action Plan

Sample Collection

- 4.5. Although efforts were made to select private wells randomly based on geographic spread over the sampling areas and for a range of depths, there is likely to have been some selection bias of the wells. Some locations within the chosen sampling areas have reticulated water and therefore were not included in the sampling area.
- 4.6. In total, 33 of 39 study participants in 2025 were willing to participate and were able to take and return water samples in the study timeframe. This participation rate was similar to other years, but higher than 2022. This repetitive sampling of the same wells allows for better assessment of trends over time. One well in Cust that has repeatedly tested over the MAV of 11.3 mg/L for nitrate-nitrogen did not submit a sample in 2025.

Trend Analysis

- 4.7. There are not robust enough data yet to assess statistically robust trends with Mann Kendall time trends statistical analysis in nitrate concentration from only seven data points for Eyreton and Cust wells, and five data points for Carleton and Swannanoa wells (see Figures 2-5). Nitrate leaching into groundwater is known to increase due to higher precipitation levels, which could be accounted for in future analysis. Precipitation records for the District show that 2025 started with below average rainfall (with 2024 being a dry year), then trended to wetter than average by the end of 2025.

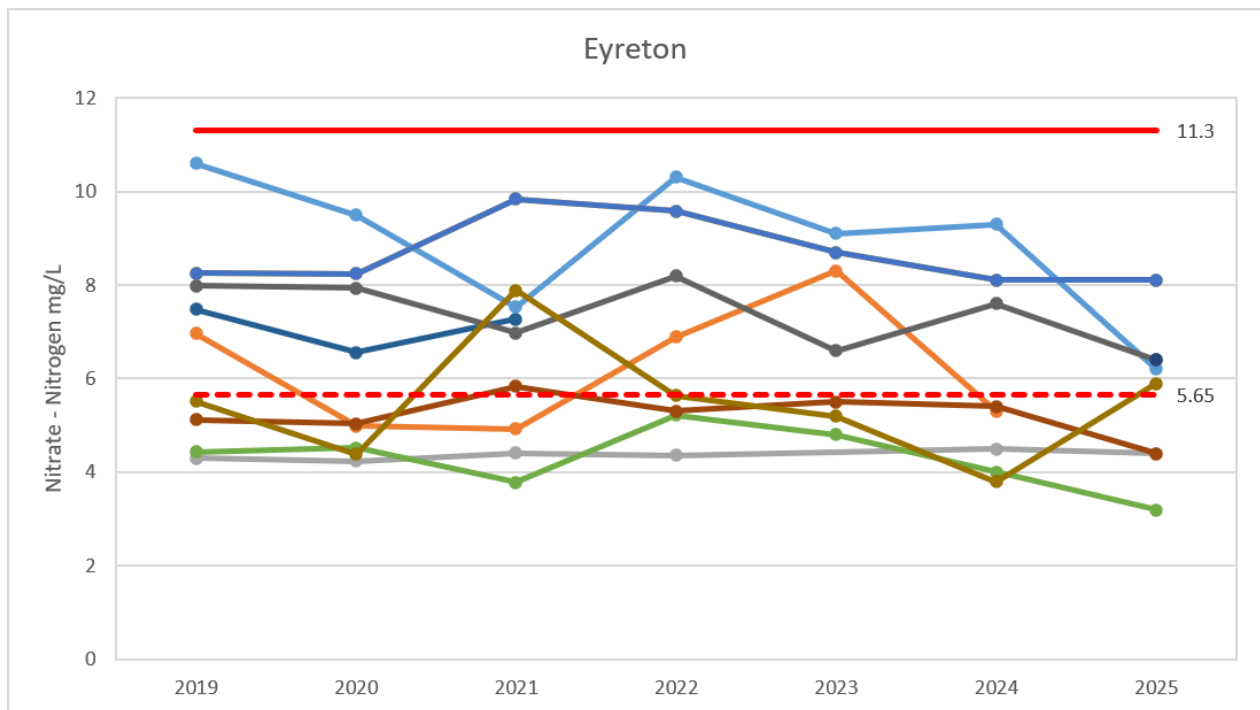


Figure 2: Eyreton well results for 2019-25. Each colour is an individual well in the study. Nitrate-Nitrogen MAV is 11.3 mg/L (solid red line) and ½ MAV is 5.65 mg/L (dashed red line).

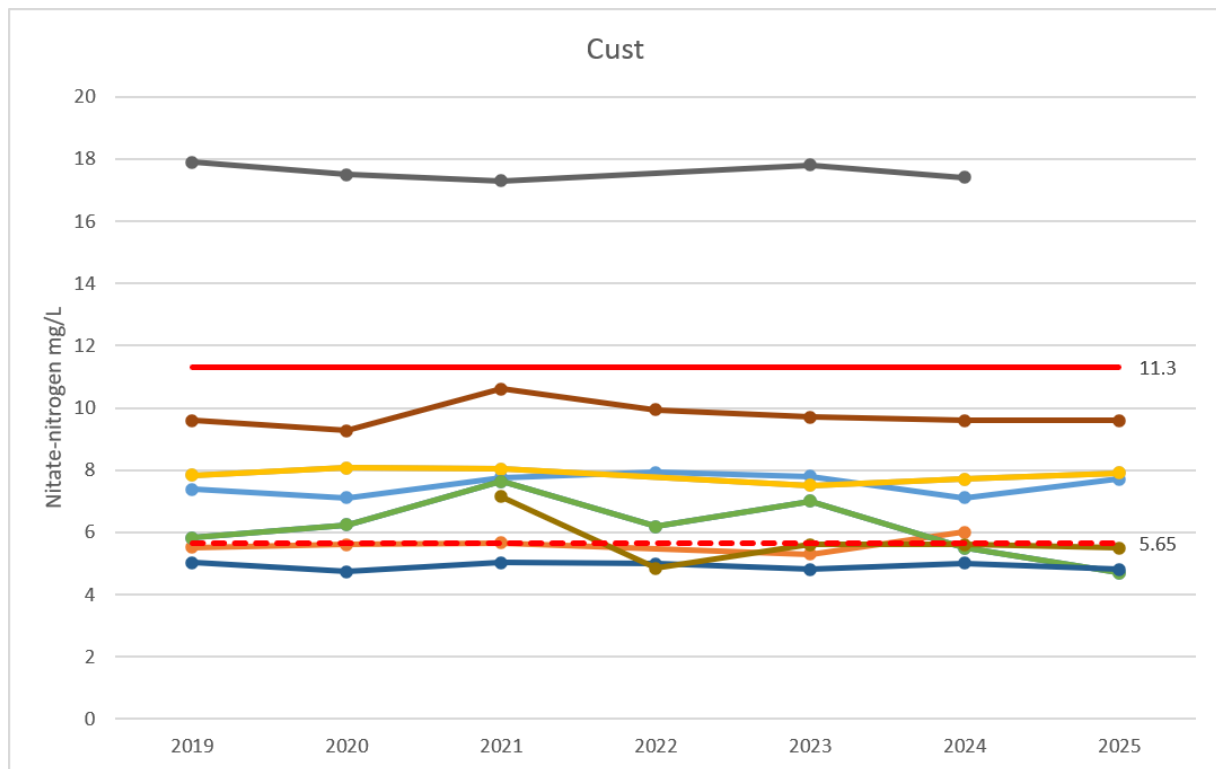


Figure 3: Cust well results for 2019 – 2025. Each colour is an individual well in the study. Nitrate-Nitrogen MAV is 11.3 mg/L (solid red line) and ½ MAV is 5.65 mg/L (dashed red line).

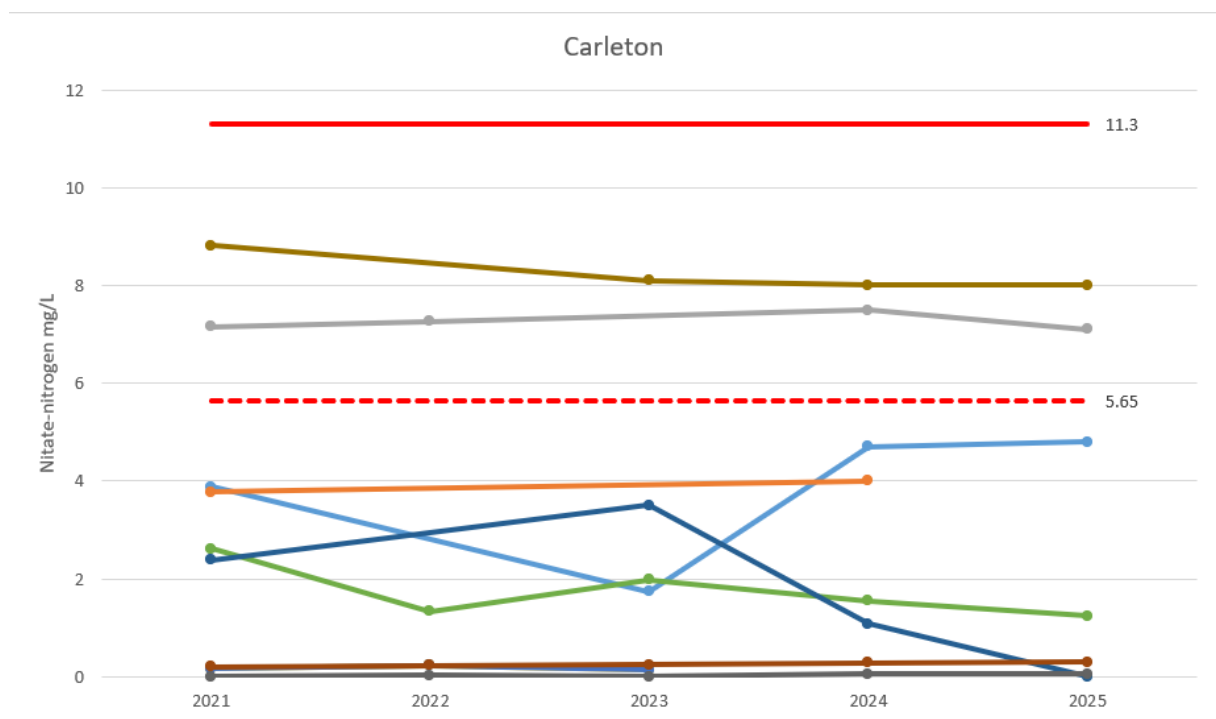


Figure 4: Carleton well results for 2021 – 2025. Each colour is an individual well in the study. Nitrate-Nitrogen MAV is 11.3 mg/L (solid red line) and ½ MAV is 5.65 mg/L (dashed red line).

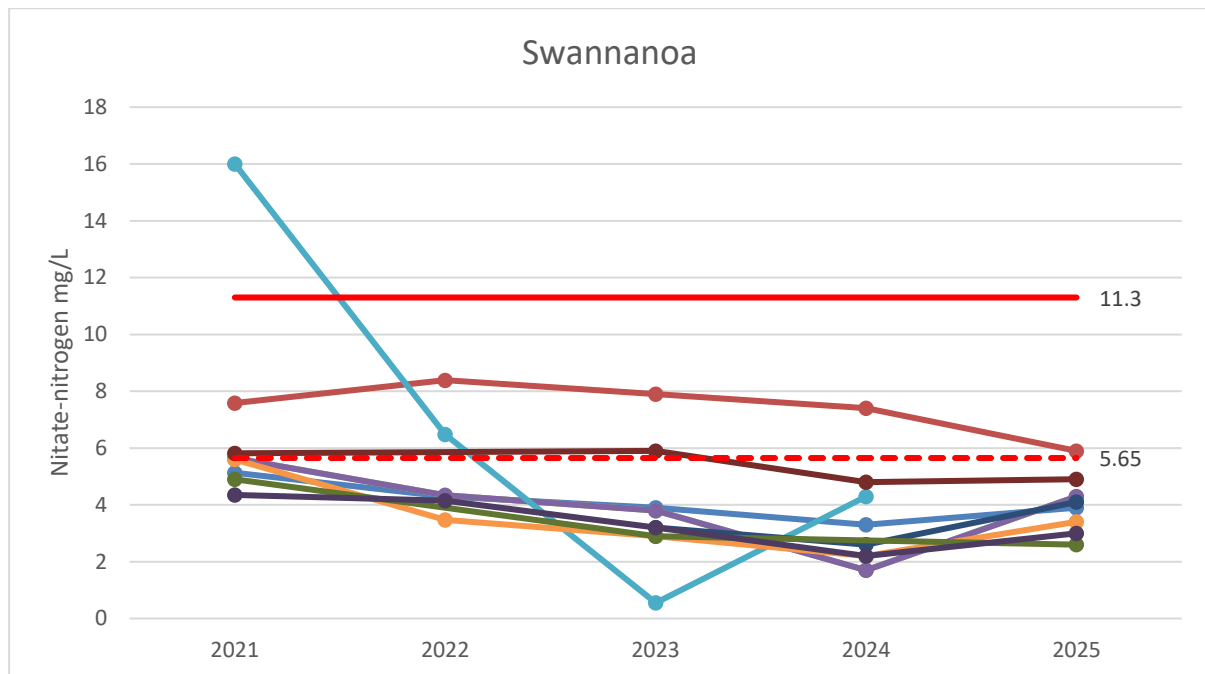


Figure 5: Swannanoa well results for 2021 – 2025. Each colour is an individual well in the study. Nitrate-Nitrogen MAV is 11.3 mg/L (solid red line) and ½ MAV is 5.65 mg/L (dashed red line).

Well Depth

- 4.8. As with the 2019-2024 study results, increasing well depth was found to have only a weak correlation of decreasing nitrate-nitrogen levels in 2025.

Nitrate management in New Zealand and worldwide

- 4.9. In September 2025, Environment Canterbury carried a motion to declare a nitrate emergency for Canterbury. This followed Environment Canterbury's annual 2024 groundwater survey, which reported increasing nitrate concentrations at 62% of long-term monitored sites and nitrate-nitrogen concentrations above the Drinking Water Standards for New Zealand MAV of 11.3 mg/L in approximately 10% of wells sampled across the Canterbury region. It is unclear what the relevance of the Environment Canterbury declaration is and context has not been provided from Environment Canterbury in their regulatory capacity. WDC, together with Environment Canterbury and Te Whatu Ora Community Public Health, will continue to raise awareness of the health impacts of nitrate, and the need for regular testing of well water.
- 4.10. The New Zealand Ministry of Health has begun a technical review into the health effects of nitrate in drinking water. The review commenced in February 2026 and is expected to be completed by the end of 2026. It is being undertaken as a literature review of publications from January 2021 to February 2026, focused on human health effects from nitrates in drinking water, such as the risk for colorectal cancer and premature birth. This review may help inform the national evidence base for any future consideration of the nitrate MAV in the Drinking Water Standards for New Zealand.

Other sampling exceedances

- 4.11. Other chemical parameters analysed in the 2025 study are not presented in this report for brevity. Other contaminants that were found to be over a MAV were turbidity and pH (i.e too cloudy and/or acidic). The Aesthetic Value (AV) for iron and manganese was also exceeded in six wells respectively with advice provided to the property owners about

treatment options if not provided in previous year. Microbiological testing was not carried out due to the risk of contaminating a sample if not trained appropriately.

Next steps

- 4.12. Well owners who took part in the study have been contacted by WDC to communicate test results and advised to contact a water treatment specialist if found to be over a MAV in the Drinking Water Standards of New Zealand (2022).
- 4.13. It was intended at the initiation of this study would test the sampling methodology for a potential wider and more extensive private well sampling programme of 180 wells (covering all 18 groundwater areas identified for Plan Change 7, with 10 wells from each area), how this has not been funded by WDC or other parties to-date. Some refining of sampling methodology was able to be carried out in the 2020 and 2021 studies, however further refinement, and discussion with Environment Canterbury around cost-sharing or shared resourcing is required. It is intended for WDC to continue a programme of 40 wells in 2026-27 in the four existing sampling areas.
- 4.14. Domestic water supplies (i.e. domestic self-supplies and shared domestic supplies with 25 people or below), remain the responsibility of the landowner under the Water Services Act (2021), and are not required to meet the Drinking Water Standards for New Zealand.

Implications for Community Wellbeing

- 4.15. There are implications for community wellbeing by the issues and options that are the subject matter of this report, such as providing guidance on the current and future safety of private drinking well supplies in the Waimakariri District.
- 4.16. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are likely to be affected by or have an interest in the subject matter of this report. This study helps enable the vision of Te Mana o Te Wai – prioritising the health of groundwater as a priority.

5.2. Groups and Organisations

There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report, such as resident associations for the sampling areas.

Greenpeace and the Waimakariri Residents Against Nitrates are also likely to have an interest in the subject matter of this report.

5.3. Wider Community

The wider community is not likely to be affected by the subject matter of this report. The residents in the community who are on private well water supplies are likely to have an interest in the subject matter of this report.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are no financial implications of the decisions sought by this report.

This budget of \$10,000 per annum is an existing budget (as part of the Zone Implementation Programme Addendum budget) included in the Annual Plan.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do have sustainability and/or climate change impacts. The management and safe use of groundwater will sustain rural communities into the future.

6.3. **Risk Management**

There are no risks arising from the adoption/implementation of the recommendations in this report.

Drinking water health risks are assessed by the water regulator, Taumata Arowai, based on public health advice to establish water quality standards.

6.4. **Health and Safety**

There are no health and safety risks arising from the adoption/implementation of the recommendations in this report.

The safety of drinking water is important for the health of the community.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Health Act 1956 and Water Services (Drinking Water Standards for New Zealand) Regulations 2022 set the Maximum Allowable Value (MAV) for nitrate-nitrogen in drinking water at 11.3 mg/L.

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

7.3.1. There is a healthy and sustainable environment for all.

7.3.2. Cultural values relating to water are acknowledged and respected.

7.3.3. Harm to the environment from the spread of contaminants into ground water and surface water is minimised.

7.4. **Authorising Delegations**

No delegations apply to this report, as this report is for information only.

Managing a Private Water Supply Well



This brochure provides information for private water supply well owners in the Waimakariri District, to help ensure the water supplied to their home is safe to drink.

Managing the water supply for yourself, your family and others is a significant responsibility and it is important that you consider this information.

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Domestic self-supply or drinking-water supplier?

The Water Services Act (2021) lays out the duties of those who own or operate a drinking-water supply.

In the August 2025 amendments to the Water Services Act (2021), household supplies (also called shared domestic supplies or domestic self-supplies) that provide water to 25 people or fewer are no longer considered drinking-water suppliers and do not need to register with the Water Services Authority—Taumata Arowai. A domestic self-supplier is not a drinking-water supplier and does not have any legal duties under the Water Services Act (2021).

Other types of non-domestic supplies that serve 25 or fewer people still need be registered by November 2028 to ensure public health is appropriately safeguarded. This includes unregistered supplies:

- that provide drinking water to buildings used by the community or public (e.g. marae and community halls)
- managed by businesses that supply drinking water as part of their operations.

If the drinking-water supply situation is not covered under the 'domestic self-supply' definition, it is recommended that the property owner or organisation responsible for providing drinking-water confirm with the Water Services Authority—Taumata Arowai whether they meet the Water Services Act (2021) definition of a 'drinking-water supplier'.

Drinking-water suppliers have compliance obligations under the Water Services Act (2021) including ensuring the drinking-water supplied is compliant with the Drinking Water Standards for New Zealand and meets the legal

definition of 'safe'. Other obligations include the duties to register the supply and prepare, and put into practice, a drinking-water safety plan and a source water risk management plan. Drinking-water suppliers have until November 2028 to register any unregistered supplies and until November 2030 to meet the full legal responsibilities for these supplies (the fundamental responsibility to supply safe drinking water already applies).

Any drinking water supplier with new supplies set up since the Water Services Authority—Taumata Arowai was established on 15 November 2021 must be registered and meet all relevant legal responsibilities from the time they are established.

Drinking-water suppliers who are responsible for drinking-water supplies providing drinking-water to less than 500 people, or for farm use, are eligible to adopt an 'Acceptable Solution' as the means of meeting many of the requirements of the Water Services Act (2021). Acceptable Solutions are not applicable for domestic self-suppliers, however could be useful for guidance, or if intending to become a drinking-water supplier.

The Water Services Authority—Taumata Arowai website provides further details regarding the 'Acceptable Solutions' available for different drinking-water supply arrangements including mixed-use rural, small to medium networks, and self-supplied buildings.

Further information regarding duties of drinking-water suppliers under the Water Services Act (2021) and the 'Acceptable Solutions' can be obtained from the Water Services Authority—Taumata Arowai website: **taumataarowai.govt.nz**

Managing an existing private well

Microbiological contaminants

Microbiological contaminants are microscopic bugs – bacteria, protozoa, viruses or other organisms – that can lead to illness. There are a wide variety of these organisms that can affect drinking-water, but we can't test for all of them.

Instead, we usually test for one bacteria, *E. coli*, which is a good indicator that water has been contaminated with faecal material. If *E. coli* is present in the water, there is a good chance that other harmful organisms are also present, and the water should not be considered safe to drink.

Total coliforms is another indicator organism. While in itself it does not present a safety risk, it is a sign of living organisms in the water and indicates that the supply may not be secure from microbiological contamination.

Microbiological contaminants can come from waste disposal, septic systems, or grazing animals.

Regular testing of your water for *E. coli* is a good way to help understand the risks of microbiological contamination.

However, even wells that have had no *E. coli* in the past, can become contaminated at any time as conditions underground or on the surface change, for example after a rainfall event or a flood, or a change in land use in the surrounding area.



Water quality monitoring and management

While all the steps included within this brochure are provided to minimise the risk of contaminants entering your water supply, this risk can never be eliminated entirely.

It is therefore important that you monitor your water quality to ensure that it is free of contaminants, and you consider the need for treatment to further reduce this risk.

The most common chemical contaminants in Canterbury groundwater are:

- **Nitrate:** high nitrate concentrations in groundwater are generally caused by farming activities or wastewater disposal.
- **Arsenic:** Arsenic occurs naturally in parts of Canterbury. It can also come from old sheep dips, pesticides, or industry.
- **Iron and manganese:** These metals naturally occur in groundwater. They can cause nuisance staining of sinks and laundry, and at higher concentrations, manganese can pose a health threat.
- **Cadmium, lead, and other heavy metals:** These metals are seldom detected in groundwater unless there is a contamination source nearby, such as industry or a landfill.
- **Organic chemicals:** These include petrochemicals, industrial solvents, pesticides, and a range of other man-made chemicals. As with heavy metals, they are seldom found in groundwater unless there is a source nearby.

Maps for areas of high arsenic, iron, manganese and nitrate are provided at the back of the document.

Treatment and well depth

As a general rule, the deeper the well, the lower the risk of contamination. However, no well can be considered completely safe from contamination, regardless of depth.

Therefore, by far **the best way to manage the risk of microbiological contamination is to provide treatment.** That way you can be confident that your water is safe, regardless of whether conditions change without your knowledge.

Positive E.coli result?

If you don't have treatment to manage the microbiological safety of your well, you should sample and test your well regularly. Any positive *E. coli* result should trigger the need to install treatment, and water should be boiled before drinking until a suitable treatment system can be installed.

Chemical contaminants

There are many chemicals that can contaminate groundwater and many industrial or agricultural activities that could be a source of chemical contaminants. Environment Canterbury's website has a contaminated land tool, the Listed Land Use Register, that can help you identify whether any of these activities have been carried out on or near your property.



Taking a water sample at a wellhead

How to test your water?

For peace of mind home-owners should consider undertaking microbial testing every three months and chemical testing annually. Records of test results are important and should be kept together in a safe place.

If possible, we recommend that you carry out microbiological and chemical testing when you purchase a property or drill a new well as an initial screening for contaminants, or right after a large rainfall event when temporary contamination can occur.

It is prudent to do a follow up test 6–12 months after the initial test to see if anything has come through

after more regular use of the well that may not have shown up in the initial test and to account for seasonal fluctuations.

Choose a laboratory experienced in analysing water in your area and ask for an estimate of the work to be done.

Sample containers and instructions on how to correctly take drinking water samples should be provided by the laboratory.

The Water Services Authority—Taumata Arowai has information on accredited laboratories—
hinekorako.taumataarowai.govt.nz/publicregister/laboratories/



Most recognised laboratories will offer a standard test suite for parameters to look for in drinking-water.

The results of the tests are compared to the Drinking Water Standards for New Zealand, in particular the Maximum Acceptable Values (the MAV). You can also contact laboratories for advice on water analysis and interpretation.

What if something is elevated?

If anything is found at a concentration greater than the MAV, the water should not be consumed and a suitable treatment system used or an alternative source found.

Domestic self-suppliers are not required to demonstrate on-going compliance against the Drinking Water Standards for New Zealand, but are strongly encouraged to do so.

If something is found at a concentration less than the MAV but more than 50% of the MAV, then more regular testing should be carried out to track whether the concentration increases over time. The testing should be done approximately quarterly to capture any seasonal variations.

The Waimakariri District Council's standard test suite can be found here:
waimakariri.govt.nz/services/3-waters/water-supply/private-bore-water-supplies

If you are concerned about the quality of your drinking-water supply, contact a Health Protection Officer at your local public health unit or Waimakariri District Council.

Maximum Acceptable Values for microbiological and chemical parameters

The following table explains the MAV (maximum acceptable values), AV (aesthetic values) and health consequence of some common contaminants to be mindful of:

To determine what the MAV of a certain parameter is, the Drinking Water Standards for New Zealand should be referred to:

www.legislation.govt.nz/regulation/public/2022/0168/latest/whole.html

Parameter	MAV	Health Considerations
<i>E. coli</i>	<1 per 100mL	Any trace of <i>E. coli</i> indicates that the water has been affected by faecal contamination and is not safe to drink.
Total Coliforms	No MAV	There is no MAV for total coliforms, as total coliforms alone are not considered unsafe. However, they are an indicator of living organisms in the water supply, and suggest that the supply is not secure and is at risk of microbiological contamination occurring in the future.
Nitrate	50 mg/L as nitrate (NO ₃ ⁻) Note: this is equivalent to 11.3 mg/L as nitrate-nitrogen. It is important when looking at results to understand which unit has been used to avoid confusion.	Sometimes high amounts of nitrate can enter groundwater from sources such as fertilisers, animal wastes, unreticulated sewage disposal and industrial and food processing waste. Nitrate levels above the MAV can pose a risk to babies less than six months old who are formula fed, or the unborn foetus of pregnant women. Adults with rare metabolic disorders may also be at risk.
Arsenic	0.01 mg/L	Arsenic can be naturally occurring in some groundwater sources, or can be introduced as a result of some industrial activities. Long term exposure to arsenic above the MAV can lead to cancer and skin lesions.
Iron	0.3 mg/L AV can cause laundry staining and other aesthetic issues	Iron and manganese are more likely to cause aesthetic (taste, odour, staining) issues rather than health issues, but still need to be considered to avoid these aesthetic problems.
Manganese	0.4 mg/L MAV. 0.04 mg/L AV can cause laundry staining 0.10 mg/L AV can cause taste issues	
Other (heavy metals, organic chemicals etc)	Seek specialist advice, depending on parameter detected	

Should you need any advice interpreting your test results please contact the Waimakariri District Council.

Treatment systems

Most of the contaminants that you might find in your private well can be treated.

It is important that:

1. You purchase the right kind of treatment system for the contaminants you have found in your water or are concerned about.
2. The treatment system meets the right standards so that you know it can be relied upon.

Some basic guidance is given in the table below:

Contaminant Type	Common Treatment Methods	Relevant Standards
Microbiological, as indicated by <i>E. coli</i> or total coliforms	Filtration followed by UV disinfection	New Zealand Standard: • AS/NZS 3497:1998 A1 Or equivalent international standards such as: • NSF/ANSI 55-2002 Class A • DVGW Technical Standard W294 • oNORM M5873-1
Nitrate or Arsenic	Reverse Osmosis/Ion Exchange	No Australian/New Zealand standard – seek specialist water treatment advice
Iron, Manganese or other	Seek specialist advice	

Note that some filters may only treat taste aspects, but not provide microbiological treatment. Make sure that your treatment system is fit for purpose.

Monitoring of turbidity levels is recommended prior to installing a UV disinfection unit. High turbidity can affect UV treatment, and may also need specific filtration treatment.

Ensure that maintenance records are kept, particularly of dates when servicing is carried out. This allows you to check you are meeting the recommended frequency for your water treatment system.

It should also be noted that treatment systems will only remain effective if they are maintained correctly. You should ensure regular maintenance is carried out as per the equipment supplier's recommendations.

Well head protection

There are generally two ways that contaminants could enter the water supply via the well head:

1. Contaminated surface water entering down the outside of the well casing, **or**
2. Contaminants entering via the well head structure itself.



Good design of your wellhead can protect against contamination

These risks can be managed as follows:

- **Grouting:** The outside of the well casing should be grouted to ensure that the water from the surface cannot travel down the outside of the casing. This should ideally be done at the time of drilling, but if you are not sure if this has been done, this can be done retrospectively by a drilling company.
- **Casing:** The well casing should extend above the ground surface to ensure that surface runoff water cannot flow directly into the top of the well.
- **Concrete Apron:** A concrete apron should be constructed that ensures that water flows away from the well casing itself and does not pond around the well head.

- **Backflow Preventer:** A backflow preventer should be installed on the well head to stop any potential contaminants from travelling back down the well riser into the aquifer.
- **Fencing:** The land surrounding the well head should be fenced off to prevent livestock from accessing this immediate area. It is recommended that at least a 5m perimeter surrounding the well be fenced off.
- **Maintenance:** Ensure that the condition of the well head protection is maintained over time.

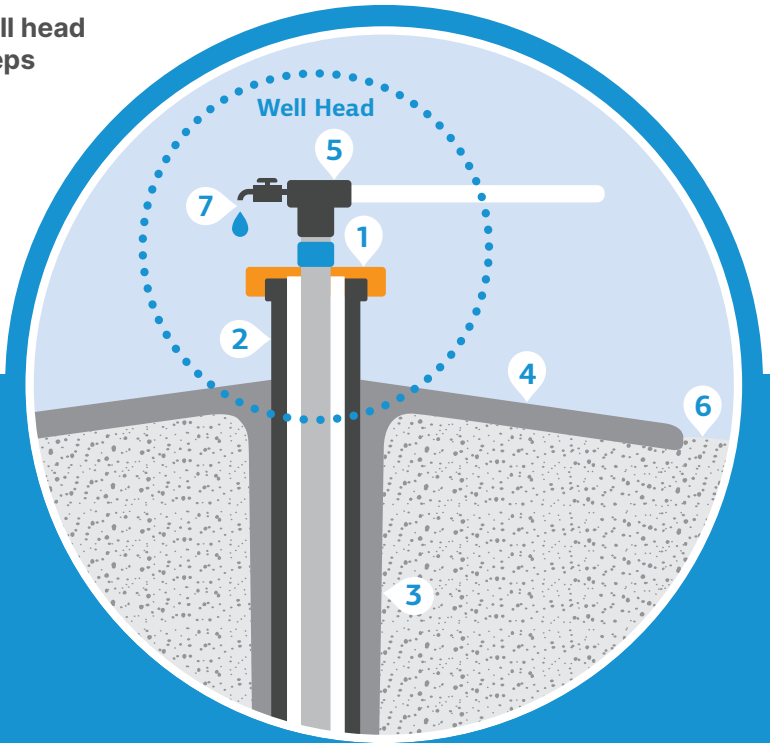
What is a backflow prevention device?

Backflow prevention devices stop contaminated water from flowing back into the household water supply.

Examples of activities which may require backflow prevention are:

- You use water for washing equipment like vehicles or machinery that has been exposed to chemicals.
- You operate appliances that require high water pressure.
- You mix water with other substances on your property.
- You have a cross connection of your private water supply (e.g. well/tank) to pipes that are also connected to the public supply.

For a secure well head follow these steps



1. Well cap

Install a secure well cap and seal between the casing and any hoses or cables going down the well.

2. Well casing (above ground)

Ensure the well casing is elevated at least half a metre above the ground surface or above the 100 year flood level (whichever is highest).

3. Well casing (below ground)

Install a bentonite seal around the casing.

4. Concrete apron

Seal between the well casing and the surrounding ground with a concrete apron.

5. Back-flow preventer

Install a back-flow preventer to stop contaminants siphoning back into your well.

6. Area around well

Keep the area around the well head clear of animals, pesticides, fertilisers, compost and rubbish.

7 Sample point

Have your groundwater supply tested regularly and following any large rainfall events or change in land use activities.

Tank maintenance

Tank maintenance

Ensure that the tank lid is secure, with no gaps for dust or insects and other vermin to get in. Check that any connecting pipes or hoses are protected from stock being able to damage them. In the cooler months, ensure that pipes are adequately protected from freezing. Check that future access for maintenance is not blocked when planting any trees nearby.

Cleaning and disinfecting your tank

The Council recommends you inspect your tank annually, and clean it out if necessary.

Ideally tank cleaning should be carried out by tank cleaning contractors. A Google search should direct you to tank cleaning providers in your area.

WARNING: If you enter the tank to clean it, please ensure there is adequate ventilation and another person is present. Please exercise due care in using ladders to gain access to the tank, as these can be treacherous when wet.

Steps to clean and disinfect your tank:

1. Turn off the water supply into the tank.
2. Drain the tank completely.
3. Clean out the inside of the tank of all accumulated matter.
4. Liberally spray chlorine-based bleach product over the internal floor and walls of the tank.
5. Check the strength of chlorine in bleach.
Assuming it is 4% sodium hypochlorite; refill the tank adding 0.3 litres of chlorine bleach per 1000 litres (220 imperial gallons) of tank volume.
6. Allow this water to stand in the tank for at least 30 minutes.
7. Drain the tank completely flushing with clean water.
8. Refill the tank with fresh water.

The use of chlorine bleach in steps 4 and 5 will ensure that the tank is adequately sterilised and suitable for holding drinking water. It is important that the tank is completely drained at step 6 as the strong chlorine concentration will make the water extremely unpleasant to drink.

For more information on water collection tanks and safe household water, please refer to this Ministry of Health factsheet **health.govt.nz/products/water-collection-tanks-and-safe-household-water**

Remember, you plan to drink the water at the completion of the cleaning so be very careful with the cleanliness of all items entering the tank.

For more information on tank disinfection, read the report 'Household Water Supplies'. This is available online at: **phfscience.nz/digital-library/household-water-supplies-the-selection-operation-and-maintenance-of-individual-household-water-supplies/**



Drilling a new private well

Planning a new well

If you have a property that has no water supply, the first thing to consider is whether you can connect to a public supply, or whether you will need to provide your own source of water.

It would always be recommended to connect to the public supply if this is feasible, as a well-managed public water supply will be safer than a private well. You should contact Waimakariri District Council on 0800 965 468 (0800WMKGOV) to see if a connection to the public supply is possible.

If a connection to a public supply is not possible, then the next best source of water may be from a well (depending on the area and availability of good groundwater sources).

Determining where a good source may be found

You will have a higher chance of finding a good groundwater source if there is evidence of other nearby properties with good wells in the area. There are a few places you can look to help inform yourself of where water sources have been found, and the suitability of the water for drinking:

- **Drillers:** Local drilling contractors will likely have knowledge on where suitable water sources have been found.
- **This brochure:** Included in the back of this brochure are maps of the Waimakariri District showing where key chemical parameters have been found in water sources, and at what level. While each value presented may only represent the sample at a particular time, this should give some idea of what contaminants may be more or less likely to be found in a given area.
- **Well search database:** You can look at bore logs using the Environment Canterbury Well Search database to see what depth water has been found at, and potentially water quality information.
- **Local knowledge:** Get to know your neighbours and ask how they source their water, and whether they have any water quality results from their own supply.
- **Flood levels:** A well may be more prone to contamination during a flood event. You should plan your well so that it is not located in a flood prone area, as this could put the well at additional risk if it becomes inundated.
- **Surrounding sources of contamination:** Think about where your well is located in relation to other activities that may introduce contaminants into the groundwater system.

Common ways this could occur are via septic tanks, historic contaminated sites, ponds, or any other farming or industrial activity or process that may cause contaminants to be discharged to ground. It is advisable to avoid wells in the vicinity of these types of activities, or if these activities have existed, to ensure the well is located upstream from them.

As a very general rule of thumb, groundwater follows surface topography and flows downhill, but this may vary near rivers or where the topography is complex.



Checking consenting requirements

The Land and Water Regional Plan (published by Environment Canterbury) is the key document that sets out where bores can and can't be drilled, whether a consent is needed to drill the well, and whether water can be taken from the well as a permitted activity without a consent, or whether a consent is required.

A link to the full Land and Water Regional Plan document can be found at ecan.govt.nz

Key sections are:

- 5.103 – 5.110: Sets out requirements for drilling wells.
- 5.113 - 5.114: Sets out requirements to be allowed to take groundwater without the need for a consent.

Drilling a well

Once you have decided where you want your well, what depth you are targeting, and what the consenting requirements are, you will need to engage a driller. It is important that whoever does this is suitably qualified and experienced, and that care is taken during the drilling process.

Rule 5.103 of the Land and Water Regional Plan (LWRP) states that installing a bore or gallery is a permitted activity if:

- the bore or gallery is installed by a member of the Canterbury Regional Council (CRC) bore installers programme; and
- all the other conditions of rule 5.103 of the LWRP are met.

A list of drillers on the CRC bore drillers programme can be found here (follow link then click tab “current members of the CRC bore installers programme”):

ecan.govt.nz/your-region/your-environment/water/crc-bore-installers-programme/

Well head protection

Once you have a well drilled, you then need to consider the well head arrangement and how this is managed to protect your water supply from potential contamination.

Information on well head protection is included in ‘Managing an Existing Private Well’ earlier in this document.



Purchasing a property with a private well

What to consider when purchasing a new property?

Anyone purchasing a new property should enquire about the water supply. You can request a LIM from Waimakariri District Council, which will include whatever information Council holds on the water supply.

In order to gain more knowledge on the water supply, it is recommended that further questions be asked from the seller, such as:

- Does the water come from a public supply or a private well?

If the answer is that it is from a private well then the following information should be obtained:

- How deep is the well?
- Is the well head sealed, and the surrounding area fenced to protect it from livestock?
- Is the water from the well pumped to a tank, and what is the condition of the tank?
- What type of treatment system do they have (if any) and has it been regularly maintained?
- How regularly is the well tested, and are the results available?
- What state is the well in? Are there any records of maintenance of the well or pump?

- Does the well have an Environment Canterbury well number?
If so, additional information about the well may be available through the Well Search page on Environment Canterbury's website: ecan.govt.nz/data/well-search/

Answers to these questions will help you to determine how safe the water supply is. If the seller is not able to demonstrate that the water is safe and that sufficient treatment is in place, the need for any upgrades to the water supply should be considered before making an offer on the property.

Who to contact for further information?

Drinking-water safety is the joint responsibility of the territorial authority (Waimakariri District Council), the Regional Council (Environment Canterbury), Community and Public Health (Te Mana Ora) and the Water Services Authority—Taumata Arowai. Please refer below for which agency to contact for different issues or questions:

Environment Canterbury:

Manages the quality of both surface and ground water quality in the water body or aquifer. This is



achieved by managing who can take water from the ground or a surface water body, and what can be discharged into or onto the ground or land/water surface.

They hold information on existing bores such as depth, yield and in some cases quality.

Waimakariri District Council:

For public supplies, Waimakariri District Council manages the quality of the water coming out of the tap. This is through management of the source, treatment, storage and distribution network.

For private supplies, Waimakariri District Council ensures that there is a potable water supply, through the issuing of a resource consent

for subdivision of land (which will specify how water is to be sourced) and issuing of a building consent for new dwellings. These however only confirm that there is a potable water source at the time of issuing the consent.

**Community and Public Health,
Te Mana Ora:**

Provides advice regarding the impacts of water quality on public health.

**Water Services Authority—
Taumata Arowai:**

The Water Services Authority—Taumata Arowai is responsible for drinking water regulation related activities in New Zealand/Aotearoa.

Waimakariri District groundwater quality maps

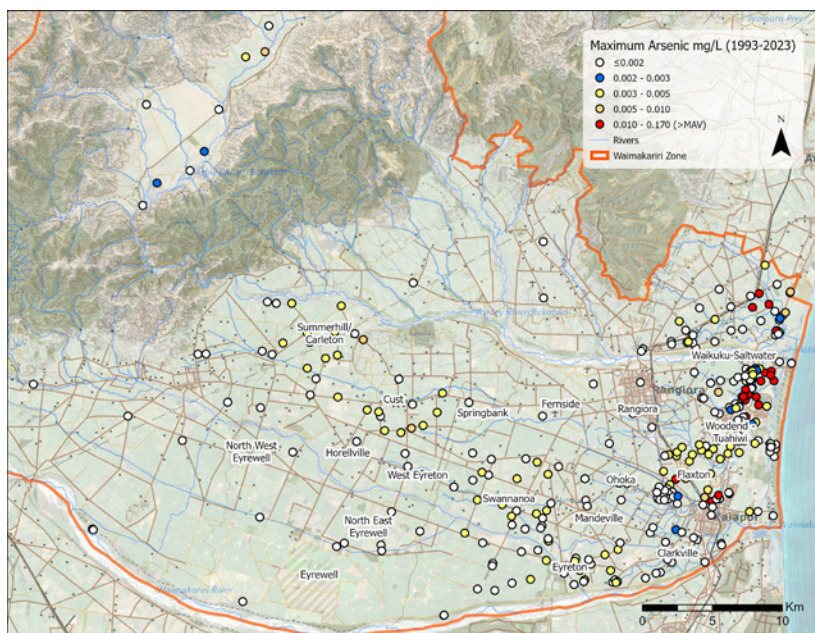
This information is to illustrate the likely groundwater quality that might be found in the area. However water quality in your well may vary from the information provided and groundwater quality also changes over time.

The data included in these groundwater quality maps is limited to the maximum contaminant result for each well sampled, between 1993-2023. Wells included are within the Waimakariri District, for any well use, all depths, active and inactive wells.

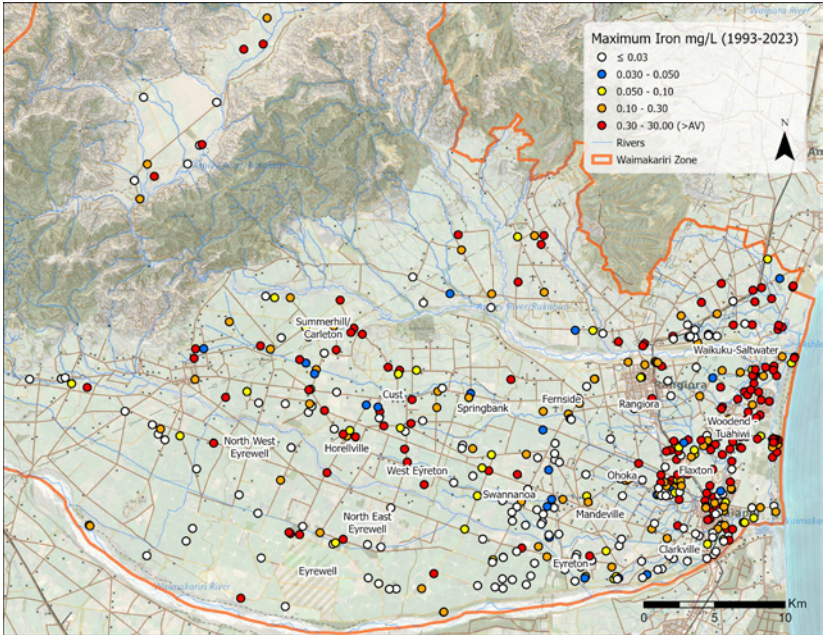
The data is limited to that in the Environment Canterbury groundwater quality database or the Waimakariri District Council source database.

The Maximum Acceptable Value (MAV) and Aesthetic Values (AV) are set by the Water Services (Drinking Water Standards for New Zealand) Regulations 2022. If a MAV is exceeded, this means that the water is considered unsafe to drink. If an AV is exceeded, this means that there may be some aesthetic issues with the water such as taste or discolouration.

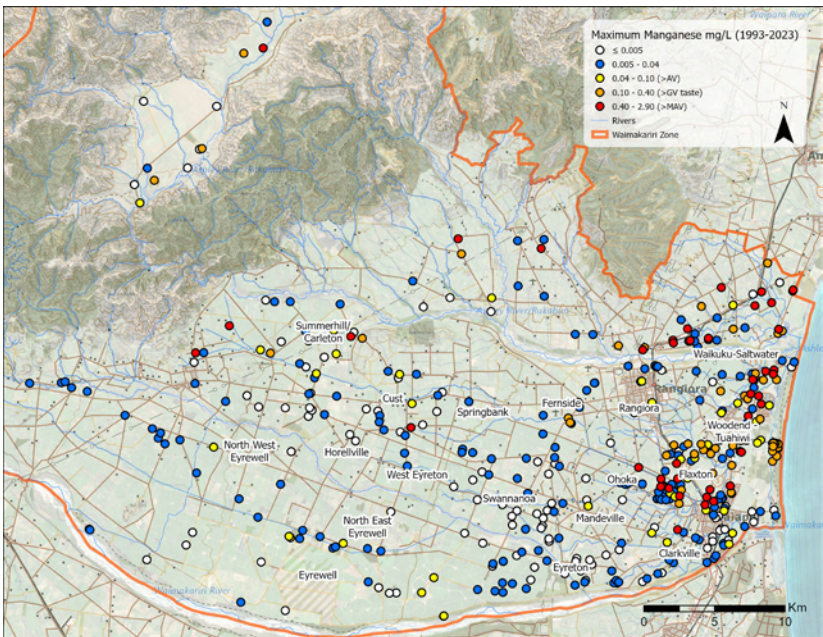
Arsenic maximum



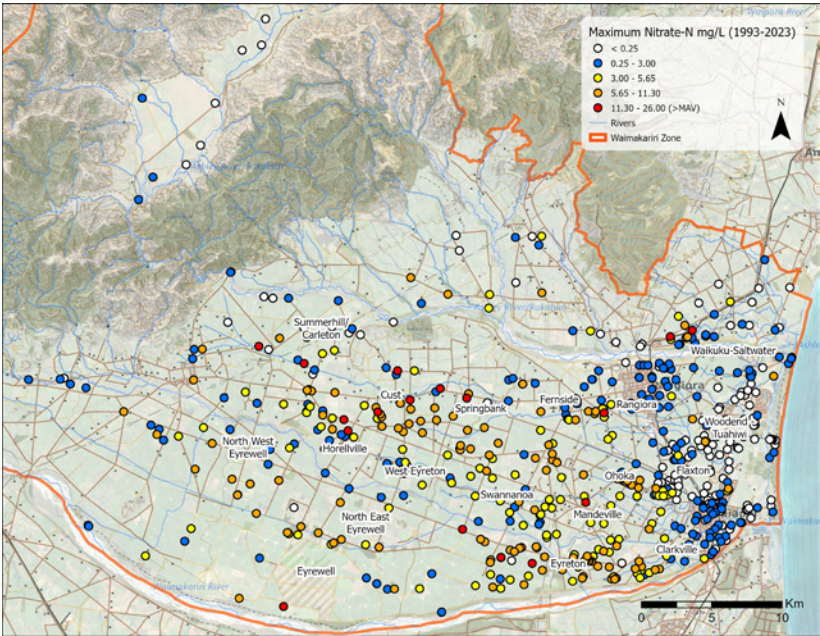
Iron maximum



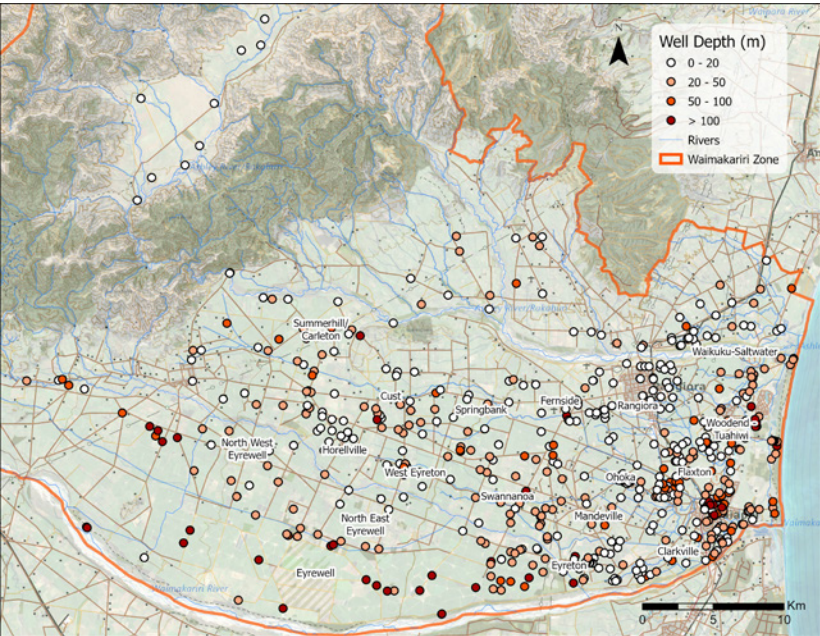
Manganese maximum



Nitrate-Nitrogen maximum



Well depth





For more information please contact

Water Environment Advisor

Waimakariri District Council

Phone: 0800 965 468 (0800 WMK GOV)

Email: office@wmk.govt.nz

Find out more at waimakariri.govt.nz

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION**

FILE NO and TRIM NO: BAC-03-100 / 260520120269

REPORT TO: RANGIORA ASHLEY COMMUNITY BOARD

DATE OF MEETING: 10 June 2026

AUTHOR(S): Heike Downie, Strategy and Centres Team Leader
Aaron Kibblewhite, Senior Project Engineer – on behalf of the Project Control Group

SUBJECT: Approval of Blake Street Carpark Reconfiguration Plan

ENDORSED BY:
(for Reports to Council, Committees or Boards)


 General Manager


 Chief Executive

1. SUMMARY

- 1.1. This report seeks the Rangiora Ashley Community Board's approval of the Blake Street Carpark Reconfiguration Plan (the Plan) (Attachment i, 260521121470). As part of this approval, staff are seeking the Rangiora Ashley Community Board's recommendation that the Utilities and Roding Committee approves funding to meet the costs of construction for this project as well as matters relating to the establishment of special parking (EV charging and mobility). This report also seeks that the Community Board recommends that the District Planning and Regulation Committee approves associated parking time-restrictions, as outlined in this report.
- 1.2. This report follows the confirmation of the Blake Street Carpark Reconfiguration project as a 'short term action' through the adoption of the Rangiora Town Centre Parking Management Plan in 2025. Since then, staff have considered and confirmed objectives and opportunities for the site, developed a draft concept plan, workshopped this with the Rangiora Ashley Community Board and the Utilities and Roding Committee for feedback in February and March this year (respectively), and shared it with the Waimakariri Access Group and property owners within the block for feedback. The Plan has been updated to reflect feedback as appropriate.
- 1.3. The Plan achieves a total net gain of 47 parking spaces within the off-street Blake Street carpark and along Blake Street (which is an increase of 28%, from 169 spaces to 216 spaces), which provides a sizable contribution towards meeting the modelled demand of an additional 60 spaces by 2030 to ensure the Premium Onstreet and Core Areas in the Rangiora town centre continue to function well. In addition to achieving a considerable net gain in parking supply, the Plan also significantly enhances the amenity, pedestrian connectivity and functionality of this core town centre area. It thereby meets the objectives identified for the site and discussed with the Community Board in February, and the Utilities and Roding Committee in March.
- 1.4. A renewal of an asbestos cement water main within the carpark area will also be undertaken in order to avoid disturbing the new carpark in the coming years. The main has a renewal window of 2021 – 2029. Therefore, it is prudent to replace it as part of these works.
- 1.5. Subject to the Community Board's approval of the Plan and the Utilities and Roding Committee's approval of budget to meet the cost, it is anticipated that construction will be undertaken in a staged manner commencing in September this year and completed by end of November. This timing avoids the pre-Christmas retail period and therefore avoids causing accessibility, parking and noise-related concerns for town centre businesses and visitors. Construction timing however will be confirmed once there is more certainty around timing of other projects in the area and how these works best fit around them to minimise the overall disruption.

- 1.6. This project is overseen by the Blake Street Carpark Reconfiguration Project Control Group which includes staff representation from Council's Strategy & Business Unit, Roading Unit, Greenspace, Project Delivery Unit, and Property; this report has been written on behalf of this Group.

Attachments:

- i. Blake Street Carpark Reconfiguration Plan (260521121470)
- ii. Blake Street Carpark Reconfiguration Project Workshop Presentation to Rangiora Ashley Community Board February 2026 (260204020452)

2. **RECOMMENDATION**

THAT the Rangiora-Ahsley Community Board:

- (a) **Receives** Report No. 260520120269.
- (b) **Approves** the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470).
- (c) **Notes** the allocation of four of the new spaces for mixed-use EV charging (allowing flexibility for both EV users and general parking when not actively charging) and the associated installation of EV charging infrastructure in implementing the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470).

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Utilities and Roading Committee:

- (d) **Notes** that the Rangiora Ashley Community Board has approved the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470).
- (e) **Notes** that in December 2013 in the context of the Council approving funding the new North of High Laneway (Hunnibell Lane) and adjacent car parking (at 11 Blake Street) project, the Council supported staff developing a concept plan that provides a potential option for reconfiguring the wider at-grade Blake Street off-street public car parking area, in order to enhance this facility and generate an overall net gain in spaces.
- (f) **Notes** that the Blake Street Carpark Reconfiguration project is a "short term" implementation project committed in the Rangiora Town Centre Parking Management Plan, adopted by Council in 2025.
- (g) **Notes** that the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470) creates an additional 47 parking spaces (representing an increase of 28%, from 169 spaces to 216 spaces), which contributes considerably towards the modelled anticipated demand for an additional 60 parks by 2030 to ensure the Rangiora town centre continues to function well, as determined in the adopted Rangiora Town Centre Parking Management Plan.
- (h) **Approves** the installation of EV charging infrastructure at the northwestern location as shown in Attachment i (260521121470) (timing to be confirmed) and allocating four of the new spaces for mixed-use EV charging (allowing flexibility for both EV users and general parking when not actively charging).
- (i) **Approves** entering a License to Occupy with a third-party provider (most likely Meridian) for the site shown in Attachment i (260521121470), subject to finalisation of terms consistent with Council's existing EV charging programme, and subject to confirming timeframes with a third-party provider.
- (j) **Notes** that the inclusion of EV charging infrastructure represents a continued implementation of Council's existing EV charging programme (approved by Council in 2020) at an additional site and with no financial cost to Council, and that it is consistent with strategic directions for supporting and enabling such amenity committed in the adopted Integrated Transport Strategy and Parking Management Plan.

- (k) **Approves** the establishment of five mobility parking spaces within the Blake Street public carpark, noting this is an increase from four currently available in the public carpark, and noting that the additional existing one on-street mobility park on Blake Street remains as is.
- (l) **Notes** that targeted engagement on a draft Blake Street Carparking Reconfiguration Plan was undertaken over recent months with property owners within the block, with some tenants, as well as with the Waimakariri Access Group, and the Concept Plan has been updated to reflect relevant feedback.
- (m) **Notes** that the high-level indicative engineer's estimate of the project cost to implement the Blake Street Carpark Reconfiguration Plan is approximately \$1,650,000 and that:
 - i. \$1,140,000 is available in the project's budget across 2025/26 and 2026/27 (PJ 101777.000.5135 and PJ 102518.000.5133) - \$400,000 of which is being added through the 2026/27 Annual Plan adoption.
 - ii. it is proposed that other existing and related budgets are utilised to contribute to the cost of this project as recommended in (l) and (m) and detailed in section 7 of this report.
 - iii. if there is any residual budget shortfall following the physical works tender process (when final costs are more certain), staff will prepare appropriate recommendations to Council as part of the tender approval process, if required.
- (n) **Approves** the use of \$80,000 from the Town Centre Carpark (Ashley St) Layout Improvements budget (PJ 102427.000.5135 and 102427.000.5133) which is existing budget that is surplus to that project's costs.
- (o) **Approves** the use of \$295,000 from the Town Centre Upgrades budget (PJ 100359.000.5134) which is the total available and uncommitted in 2025/26 and 2026/27.
- (p) **Notes** that renewal of 108 metres of asbestos cement water main located within the carpark will be included in the physical works at an estimated cost of \$117,000; this component will be funded by the Rangiora Water Main Renewals budget (PJ 100002.000.5104) and is within the allocated budget for 2026/27 of \$837,600.
- (q) **Delegates** authority to the Chief Executive to approve any minor adjustments to the final Blake Street Carpark Reconfiguration Plan (as required) to support the physical works stage.
- (r) **Notes** that physical works associated with implementing the Blake Street Carpark Reconfiguration Plan (Trim: 260521121470) are anticipated to commence in September and be completed by the end of November 2026.
- (s) **Notes** that it is anticipated that the demolition of the building at 13 Blake Street occurs in August (with the tender for this closing in late June), following the current tenants (North Canterbury Model Railway Club) vacating the premises by the end of June.

AND

THAT the Rangiora-Ashley Community Board recommends:

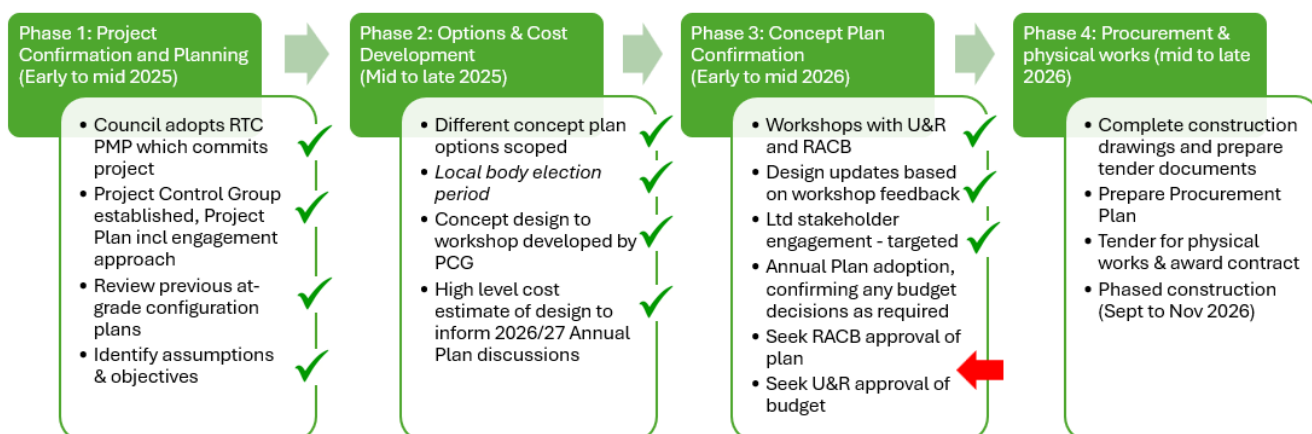
THAT the District Planning and Regulation Committee:

- (t) **Approves** the establishment of a 120-minute time restriction (except to mobility parks) to new carparks within the extended Blake Street carpark and at Blake Street, including those spaces to be constructed over 13 Blake Street which will be incorporated into the wider Blake Street carpark area.
- (u) **Notes** that the Blake Street carpark is currently restricted to 120 minutes and experiences amongst the highest parking occupancy at peak times; a 120-minute time restriction is therefore considered appropriate in this prime location to continue to encourage parking turnover, which supports local businesses and makes best use of the land.
- (v) **Notes** that the mobility parking spaces will be unrestricted, which is consistent with current practice.

3. **BACKGROUND**

- 3.1. Parking plays a critical role within Waimakariri by supporting economic growth through appropriate access to commercial and retail activity, as well as to important social and recreation services. The Rangiora town centre is the focal point for the wider District, as well as the primary centre for shopping and services for more than 60% of the District's population. Its catchment population reaches outside of the District and is set to continue to grow; the town centre needs to adapt in order to continue to meet the needs of the community, particularly as substantial increases in floorspace for retail, business and community services are accommodated.
- 3.2. The 'North of High' block of land in the heart of Rangiora, bounded by High Street, Durham Street, Blake Street and Good Street has a long strategic history of planned improvements (see details in Attachment ii, 260204020452). In summary, the vision to develop the block through enhanced pedestrian connections, additional buildings housing retail and hospitality activities, and a reconfigured public carparking asset has been identified over several strategic documents adopted by Council over the last fifteen years, starting with the 2010 Rangiora Town Centre Strategy. A later North of High Redevelopment Plan formulated under the then Land Use Recovery Plan (LURP) and later re-confirmed through the 2020 updated Rangiora Town Centre Strategy saw the vision for a mixed-use retail and carparking building. The 2021-31 Long Term Plan subsequently included budget for North of High and town centre parking projects. This has included budget for an at-grade reconfiguration of the public carpark in the first instance, the progression of which was then later delayed until such a time that the future of a potential parking building was more firmly determined. Over the last several years, Council has strategically acquired a number of sites within the North of High block, including 11, 13 and 15 Blake Street, in order to secure an at-scale land holding that would unlock and support eventual public works, development and parking opportunities.
- 3.3. In 2024, Council adopted its first Integrated Transport Strategy, which among several 'Key Moves', identified the important role that appropriate parking in the town centres continues to play in the local context (needing to meet the needs of both the urban and rural parts of the District), and directed the development of a Parking Management Plan.
- 3.4. The Rangiora Town Centre Parking Management Plan was adopted by Council in 2025. This Plan, informed by parking data, parking demand and supply modelling, stakeholder engagement, and technical advice, confirmed a programme approach for managing and meeting parking demand in an appropriate manner as the District's population and town centre offering grows over the next 15 years. Through this Plan, Council committed to several actions which collectively seek to optimise existing assets, manage parking demand, and increase parking supply. Reconfiguring the off-street Blake Street carpark to create more spaces is a short-term implementation project identified in this Plan, and Council has shown a strong commitment to its implementation. An additional at-scale infrastructure investment, such as a central parking building (or an all-day parking site at the periphery of the centre) is a long-term action identified in the Parking Management Plan, modelled to be likely triggered by parking occupancy rates by 2040. To that end, it is timely and appropriate to reconfigure the Blake Street carpark area in the short term, which also continues to protect the long-term opportunity for a built development onsite, should that be a future decision of Council's.
- 3.5. The Rangiora Town Centre Parking Management Plan confirms a target parking occupancy range at peak times of 70 to 85% as appropriate in the Rangiora town centre context. This strikes a suitable balance between providing adequate access to the town centre and thus not frustrating drivers and increasing traffic circulation as visitors seek a park, and good use of prime town centre land. The peak parking period in the Rangiora town centre on a typical weekday is between approximately 10:30am and 12:30pm, where parking surveys show that the Blake Street carpark, which currently provides 169 spaces including those along Blake Street, is experiencing high occupancy – Council's own regular occupancy counts show that on average, the Blake Street carpark has experienced 90% occupancy over 2025. In order to meet demand and remain within the target occupancy range, the Parking Management Plan concluded that an additional 60 spaces are required by 2030 to ensure the Premium Onstreet and Core Areas (being High Street and immediate surrounding blocks) continue to function well.

- 3.6. This project is overseen by the Blake Street Carpark Reconfiguration Project Control Group which includes staff representation from Council's Strategy & Business Unit, Rooding Unit, Greenspace, Project Delivery Unit, and Property; this report has been written on behalf of this Group. The following figure outlines the project approach that is being undertaken, whereby, subject to the Community Board's approval of the Plan and the Utilities & Rooding Committee's approval of the budget as necessary, Phase 3 is complete.



- 3.7. It is anticipated that construction will be undertaken in a staged manner commencing in September this year and completed by end of November. This timing avoids the pre-Christmas retail period and therefore avoids causing accessibility, parking and noise-related concerns for local businesses and town centre visitors. This timing will be confirmed depending on how it fits with other projects in the near vicinity in order to minimise the impacts on businesses and visitors. Ample communications with adjacent businesses, landowners and the wider community leading up to physical works will ensure the community and key stakeholders are kept informed and have ample time to make necessary alternative arrangements (e.g. planning their trips and town centre parking) as required.

- 3.8. As referenced above, Council strategically acquired the property at 13 Blake Street some years ago and has been leasing it to the North Canterbury Model Railway Club on a month-by-month basis, with the intention of eventually demolishing the building to enable additional parking or at-scale development. The Club is vacating the premises by the end of June, and it is intended that demolition of the building occurs in August – the tender for this is currently out to the market. This demolition is necessary to enable the carpark reconfiguration to proceed.

4. **KEY ISSUES**

- 4.1. Despite a key project driver being the provision of additional parking to meet demand as committed through the Parking Management Plan, what makes a good town centre is not just about parking and good access. It is also about inviting outdoor settings that incorporate the character and quality of the town, attractive and inviting ground floor uses in buildings, strong pedestrian environments that encourage walking and spending time in public spaces, opportunities for public art and landscaping, and a wide range of facilities, activities and services that bring people together and add vibrancy.

- 4.2. To that end, key objectives that have underpinned the development of the Plan have include:

- Functional layout maximising Council's land holding and creating 'good' net gain of spaces
- Clear, safe and attractive pedestrian connections through the carpark and to laneways
- Retention of trees and additional landscaping to soften the space and add interest
- Potential for new pedestrian spaces to maximise appeal of the laneways, build on their success and create vibrancy
- Protection of the long-term opportunity for built development
- Support for other modes through infrastructure, such cycle stands and EV charging
- Special parking needs are met, such as mobility spaces and loading zones

- 4.3. The Plan achieves a total of 47 additional parking spaces within the Blake Street carpark area and along Blake Street, which contributes significantly towards the modelled additional 60 spaces required by 2030 as confirmed by the Parking Management Plan. The current provision of spaces in the Blake Street carpark area and along Blake Street is 169 – the new provision upon completion will be 216 spaces (a 28% increase in spaces). The Plan's key features, as shown Attachment i (260521121470), are:
- Demolition of the existing Council-owned building at 13 Blake Street – this has been leased to the North Canterbury Model Railway Club for several years on a month-by-month basis and the Club will be vacating the building by end of June
 - Creation of a new accessway into the public carpark and the private properties at 202, 206 and 210 High Street to honour the existing right of way easement property obligations
 - A total of 216 parking spaces (47 more than currently provided), which measure 2.6m wide (which is the same as the current configuration) and 5.0m long, with three aisles at 6.6m in width – these measurements exceed the relevant NZ Standards and align with the District Plan. Adequate turning movements for large rigid trucks have been modelled to ensure safe and sufficient functionality.
 - Raised pedestrian paths through the carpark in line with the existing Hunnibell and Conway Lane to provide continuity, legibility and enhanced pedestrian safety
 - Retention of the existing large trees within the carpark, with additional new trees and landscaping to soften the space, add interest and visual relief, and provide shading
 - Retention of the existing street trees along Blake Street and extension of this landscaping treatment along the south of Blake Street to the west
 - Five mobility parks within the off-street carpark, creating one additional park (from the current four), noting the single mobility carpark at Blake Street will also be retained
 - Relocated loading zone to the southeast of the carparking area to support businesses
 - A new pedestrian space at the south of the carparking area that connects and builds on the success of the laneways, featuring:
 - A wide area with varied paving to break up and organise the space
 - Planting areas and pots, as well as raised planters with seats to soften the space, provide seating opportunities and add interest
 - An area for the northern existing hospitality tenants to activate through spill out activity / outdoor dining / seating
 - An urban play element to activate the space
 - Timber bench seats complimenting those in Good Street Lane
 - A covered bike stand area to provide amenity and support active modes
 - A parking layout that offers the opportunity for alternative uses of the space from time-to-time, such as for local events
 - Provision for up to four mixed-use EV charging spaces, supporting such infrastructure whilst allowing flexibility for both EV users and general parking when not actively in use for charging
 - Replacement of an asbestos cement water main which is within its renewal window, in order to avoid future disturbance of the new carpark.
- 4.4. A draft Plan was shared and workshopped with the Rangiora Ashley Community in February 2026. In general, Community Board members supported the draft Plan and in particular, the added amenity value created through the new proposed pedestrian space connecting the laneways. Members of the Utilities and Roading Committee were similarly supportive of the draft Plan when workshopped with the Committee in March. The Committee sought clarification concerning the dimensions of the parking spaces, the ability to park caravans, and the ability to manoeuvre appropriately and safely through the area. As listed in 4.3, the parking spaces dimensions exceed the relevant NZ Standards and align with the District Plan – the widths are the same as those currently in place, and aisles are sufficiently wide to enable safe movement. Oversized vehicles such as caravans or cars with trailers have the ability to utilise the centre spaces and occupy two spaces to accommodate their size.
- 4.5. A draft Plan was discussed with the Waimakariri Access Group in February, and some minor amendments were subsequently made that addressed feedback received. Following Community Board and Committee engagement, a draft Plan was also shared with all property owners in the block bounded by High Street, Durham Street, Blake Street and Good Street – owners were also invited to share the draft Plan with their tenants for feedback. Generally, those who responded to staff either supported the Plan, asked some clarification questions, or didn't specifically share an opinion.

- 4.6. As noted in 4.3, the Plan includes provision of up to four mixed-use EV charging spaces, supporting such infrastructure whilst allowing flexibility for both EV users and general parking when not actively in use for charging. The Council approved the establishment of EV charging infrastructure on Council land in 2020, including the use of third-party providers such as Meridian Energy under standard licence arrangements. EV charging facilities are already provided on other Council owned land across the District, where Meridian has funded the infrastructure, including upgrades, maintenance and insurance, and operates the chargers on commercial terms. Council's role is limited to providing land access through a License to Occupy, and does not extend to carrying any responsibility relating to the infrastructure, maintenance, insurance or liability. Enabling EV charging infrastructure at this site represents the continued implementation of Council's existing programme at an additional location, using the same delivery model and standard Licence to Occupy framework. It does not introduce any new policy direction, land use change, or financial commitment for Council.
- 4.7. The inclusion of EV charging infrastructure within the Blake Street carpark (subject to confirmation including relevant timing with the third-party provider) represents a positive enhancement to the local transport network and public amenity. It supports the continued growth of EV usage within the District and provides a convenient, centrally located charging option as part of a revitalised public facility. It also ensures the site is future focused and aligns with Council's broader sustainability objectives articulated in various strategic documents, including the Integrated Transport Strategy, the Parking Management Plan and Council's climate change and sustainability related work programme.

5. **OPTIONS**

- 5.1. The following options are available to the Rangiora Ashley Community Board:
- 5.2. Option 1: Approve the Blake Street Carpark Reconfiguration Plan and make associated recommendations to the Utilities & Roading Committee and District Planning and Regulation Committee

This option would see the timely progression of the project and recognise that the Plan (Attachment i, 260521121470) meets wider objectives for enhancing the town centre and has been developed with input from the Community Board, Utilities and Roading Committee, Access Group and adjacent property owners. Approving the Plan at this time allows physical works to occur between September and November 2026, ensuring that the works avoid the pre-Christmas prime retail trade period, and therefore avoid causing accessibility, parking and noise-related concerns for town centre businesses and visitors. It is also planned that construction timing will avoid the timing of other projects in the area in order to minimise overall disruption. Completing the Blake Street carpark reconfiguration ahead of summer is considered advantageous as it generates considerable additional parking opportunities in close proximity of High Street ahead of the pre-Christmas retail period and at a time when access to some on-street prime spaces in the town centre will likely be temporary compromised during other imminently following construction works in the vicinity.

This is the recommended option.

- 5.3. Option 2: Request amendments to the Blake Street Carpark Reconfiguration Plan and request that staff bring back to the Community Board an updated Plan for consideration

This option would see staff amending the Plan to reflect any requested changes the Community Board may have. Requested changes would need to be fully assessed for feasibility and an updated Plan would be reported back to the Community Board at a later date for consideration and approval. This option would lose the opportunity to time construction this year, which would compromise the benefits outlined under Option 1.

- 5.4. Option 3: Request the project is not progressed altogether

This option would mean that the Community Board is not in favour of progressing the project at all. This option would be inconsistent with existing commitments made to reconfigure the Blake Street carpark area, would fail to contribute towards meeting parking demand and adding significant amenity in this prime central precinct, and would not appropriately respond to the community's support for the project, as evidenced in previous public consultations and engagement processes.

5.5. The Management Team has reviewed this report and supports the recommendations.

6. STRATEGIC ALIGNMENT AND COMMUNITY VIEWS

Mana Whenua Engagement

6.1. The subject matter and/or recommendations contained within this report are not likely to be of interest to mana whenua.

Groups, Organisations and the Wider Community

6.2. There are groups, organisations, or members of the wider community likely to be affected by, or to have an interest in, the subject matter of this report. Targeted stakeholder engagement was undertaken through the Plan development phase, including with the Waimakariri Access Group and all property owners within the block bounded by High Street, Durham Street, Blake Street and Good Street. Landowners were invited to share the Plan with their tenants, and some views were shared. Where appropriate, amendments were made to the Plan to reflect feedback.

6.3. The outcome of additional central car parking spaces in an area that experiences among the highest parking occupancy in Rangiora is likely to be significantly supported by groups, organisation and the wider community. In addition to more parking spaces, high quality pedestrian spaces and more attractive and functional access to the area will be of wider community benefit. Implementation of the Plan will enhance the vibrancy of the Rangiora town centre, which has positive flow on effects to the resident, visitor and business community. The Rangiora Town Centre Strategies (2010 and 2020), the North of High Redevelopment Plan, and the Rangiora Town Centre Parking Management Plan provided significant opportunities for public engagement, and the concept of a reconfigured and enhanced Blake Street carpark has enjoyed strong community support.

Implications for Community Wellbeing

6.4. There are implications on community wellbeing by the issues and options that are the subject matter of this report, particularly in relation to the enhanced pedestrian connectivity (including pedestrian safety), functionality and manoeuvrability of a reconfigured Blake Street carpark. The water main renewal also provides increased resilience to the community drinking water supply network.

Community Outcomes and Strategic Priorities

6.5. The Council's Community Outcomes are relevant to the recommendations in this report, particularly:

- Public spaces and facilities are plentiful, accessible and high quality, and reflect cultural identity
- Businesses in the District are diverse, adaptable and growing
- Transport is accessible, convenient, reliable and sustainable
- The distinctive character of our takiwā - towns, villages and rural areas is maintained, developed and celebrated
- There is a safe environment for all

6.6. The Council's Strategic Priorities are relevant to the actions arising from recommendations in this report, particularly:

- Enhance community wellbeing, safety, inclusivity and connectedness.
- Advance an integrated and accessible transport network
- Enable economic development and sustainable growth

7. OTHER IMPLICATIONS AND RISK MANAGEMENT

Financial Implications

7.1. The high-level indicative engineer's estimate of the project cost to implement the Blake Street Carpark Reconfiguration Plan is approximately \$1,650,000 (which includes a 20% contingency). The total Blake Street Carpark Extension budget (PJ 101777.000.5135 and PJ 102518.000.5133) is \$1,140,000 (\$400,000 of which is being added via the 2026/27 Annual Plan adoption). It is noted that the final construction costs are unknown at this stage but will become more certain through the tender evaluation process in due course.

- 7.2. This report recommends that the Rangiora Ashley Community Board recommends that the Utilities and Roading Committee approves some other existing available budget to contribute to meeting the costs of this project.
- 7.3. The following table outlines the existing project budget available for this project (for which no decisions are sought) and provides details relating to the recommended other budgets to be re-allocated towards the Blake Street carpark reconfiguration project. Because recommended re-allocation involves only existing available budgets, which are included in the Annual Plan / Long Term Plan, there are no implications on rates.

Budget	Amount available	Recommended to be used for project	Decision sought through report	Remaining in budget after project
Blake St Carpark Extension: 101777.000.5135 102518.000.5133	\$50,000 in 2025/26 \$1,090,000* in 2026/27 <u>Total: \$1,140,000</u>	\$1,140,000	N/A, budget already available / assigned to this project	\$0
Town Centre Carpark (Ashley St) Layout: 102427.000.5135 102427.000.5133	\$80,000 in 2025/26 (being surplus to that project)	\$80,000	Recommend that U&R approve re-allocating this to this project	\$0
Town Centre Upgrades: 100359.000.5134	\$50,000 in 2025/26 \$245,000** in 2026/27 <u>Total: \$295,000</u> Then \$300,000 every 3yrs from 2027/28	\$295,000	Recommend that U&R approve use of \$295,000 available budget	\$300,000 every three years from 2027/28
Total		\$1,515,000		

* \$400,000 of this will be added through the 2026/27 Annual Plan adoption

** this being the uncommitted budget available, with \$20,000 committed to another project in 2026/27 (subject to Council approval on 2 June)

- 7.4. There is currently an indicative budget shortfall of \$135,000, compared to the high-level engineer's estimate (which also includes a 20% contingency) – this shortfall could likely reduce following the physical works tender process, as has been the case for similar projects. If there is any residual budget shortfall, once final costs are more certain following the tender process, staff will prepare appropriate recommendations to Council as part of the tender approval process.

Community Resilience and Sustainability

- 7.5. The recommendations in this report do have sustainability and/or climate change impacts. Construction works to implement the Blake Street Carpark Reconfiguration project will create emissions, stemming from manufacturing materials and operating heavy machinery. Providing additional carparks in the town centre also supports the continued use of private vehicles, which generate emissions. However, the Plan also provides appropriate infrastructure that supports alternative and active modes, including pedestrian connections, cycle parking and space for EV charging – these provide mode choices.

Risk Management

- 7.6. There are no risks arising from the adoption/implementation of the recommendations in this report. Not approving the Blake Street Carpark Reconfiguration Plan carries the risk of compromised accountability to the wider community, which, through various previous engagement processes, has supported this project.

Health and Safety

- 7.7. There are no health and safety risks arising from the adoption/ implementation of the recommendations in this report. The Plan has been designed with consideration of health and safety requirements, including accessibility.

- 7.8. The proposed design is completed to meet District Plan requirements to ensure adequate manoeuvring space for vehicles. Contractors engaged for the works will be required to be SiteWise registered and complete a Site Specific Safety Plan prior to commencing works on site.

8. CONTEXT

Consistency with Policy

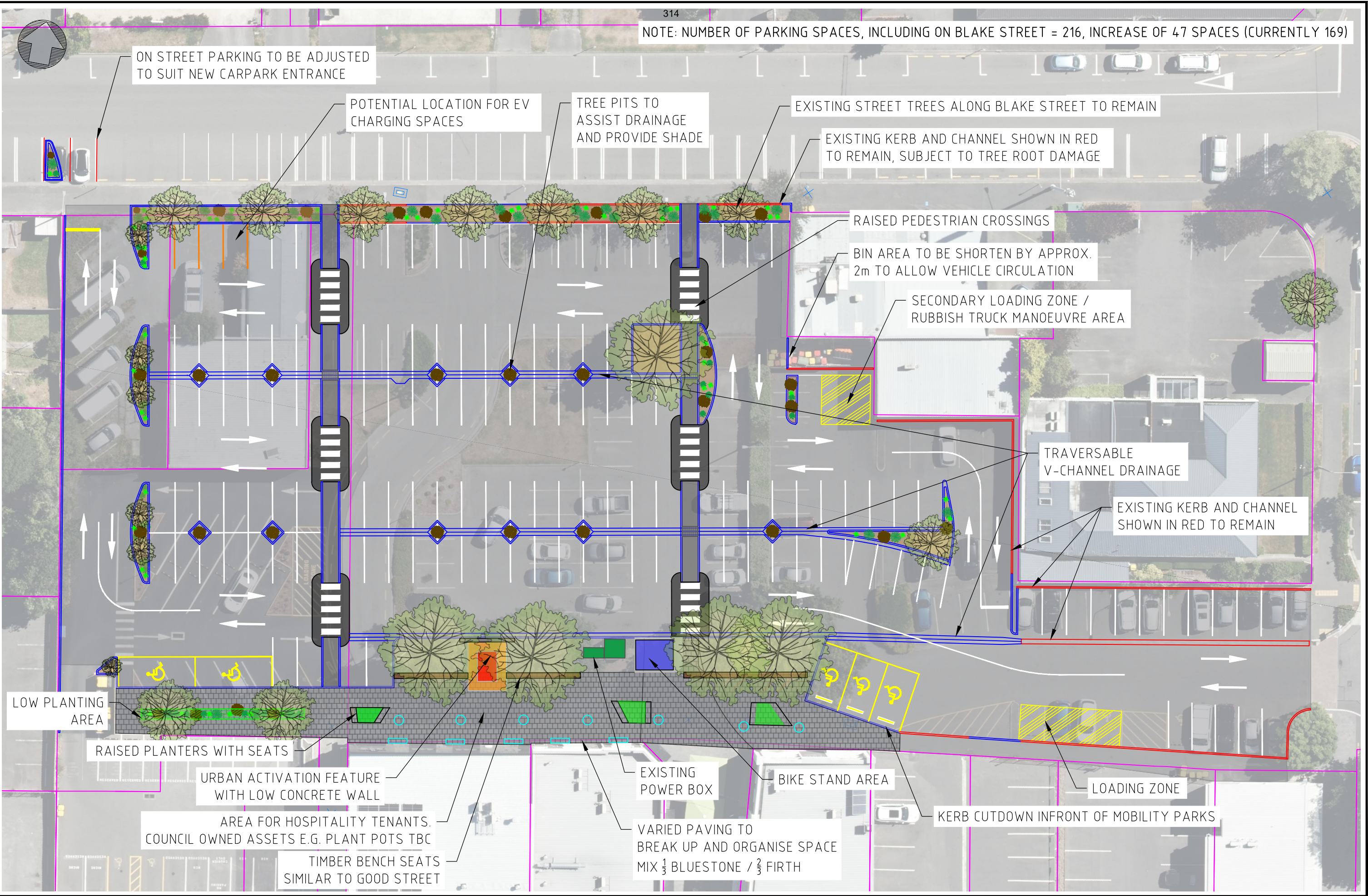
- 8.1. This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

Authorising Legislation

- 8.2. Local Government Act 2002

Authorising Delegations

- 8.3. The Community Board has the delegated authority to approve proposed developments or activities (concept plans) within existing budgets.
- 8.4. The Utilities and Roading Committee has the authority to re-allocate funding already approved by the Council as part of the Annual Plan process, for the committee's activities provided that the re-allocation of funds does not increase the total expenditure within any targeted rate cost centre or within a significant activity of Council. The Utilities and Roading Committee also has the authority to approve work programmes for works that the Council has budgeted a general level of expenditure for. The Utilities and Roading Committee is responsible for roading and transportation (including road safety, multimodal transportation and traffic control) and thus, the approval of special parking (e.g. mobility, EV charging).
- 8.5. The District Planning and Regulation Committee is responsible for parking enforcement.
- 8.6. The tender for physical works in due course (subject to the decisions relating to this report) will be approved by Council, subject to a separate report, as the physical works costs will exceed those of staff budget holding authority.



REV	REVISION DETAILS	DRN	CHK	APP	DATE
A	SCHEME DESIGN	DM	KS	---	29/07/2025
B	REVISIONS IMPLEMENTED AS PER WAG	AK	KS	---	05/03/2026
B.1	CHANGES IN PROGRESS FOR CONSULTATION	AK	---	---	21/05/2026

SURVEYED	GP	24/07/2025	PROJECT No	PD002239
DRAWN	DM	23/01/2026	CON No	NA
DRAWING CHKD	KS	---/2025	SCALE (A3)	NA
DESIGNED	DM	09/07/2025	DATUM ORIGIN	
DESIGNED CHKD	KS	---/2025	HORIZONTAL	NZTM GD2000
APPROVED	---	---/2025	VERTICAL	NZVD 2016



PROJECT	BLAKE STREET CAR PARK
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SHEET TITLE	SCHEME DESIGN CURRENT DRAFT PLAN
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FOR INFORMATION NOT FOR CONSTRUCTION	
DRAWING	4627
SHEET	REVISION
01	B.1

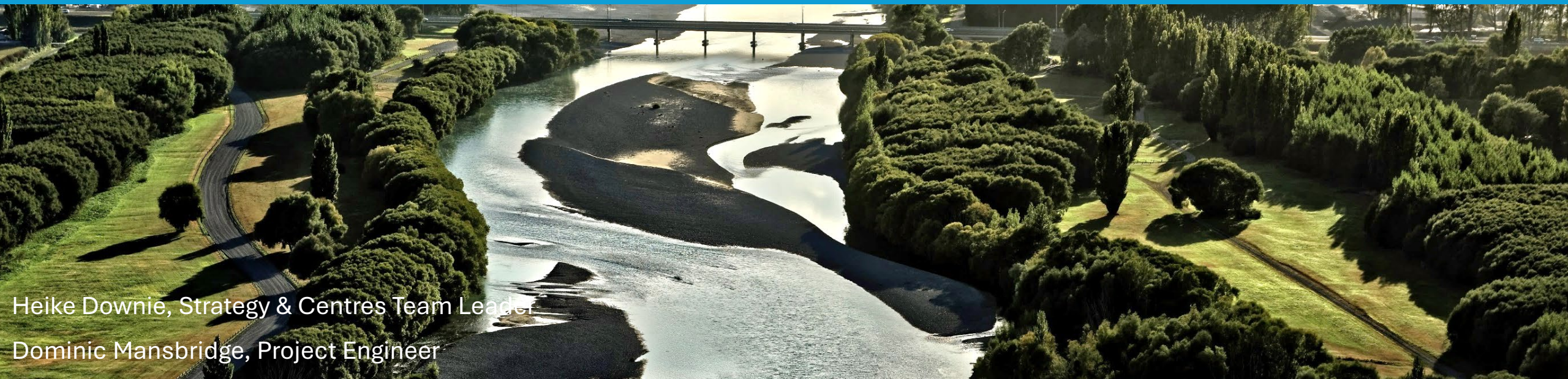


Blake Street Carpark Reconfiguration Project

Workshop with Rangiora Ashley Community Board

260204020452

11 Feb 2026



Heike Downie, Strategy & Centres Team Leader
Dominic Mansbridge, Project Engineer

1. Background

- Council has committed to at-grade reconfiguration of off-street Blake St carpark
- Among highest demand public carpark
- Council has purchased properties over years to provide contiguous site opportunity
- Budget included in Long Term Plan / Annual Plan for reconfiguration
- Parking Management Plan implementation project
- Draft concept to share with Board for feedback



Purpose

1. Background
2. Our proposed approach
3. Rangiora town centre's big picture
4. The long, strategic story to here
5. Parking demand and supply
6. Objectives for site
7. Draft concept for discussion
8. Next steps

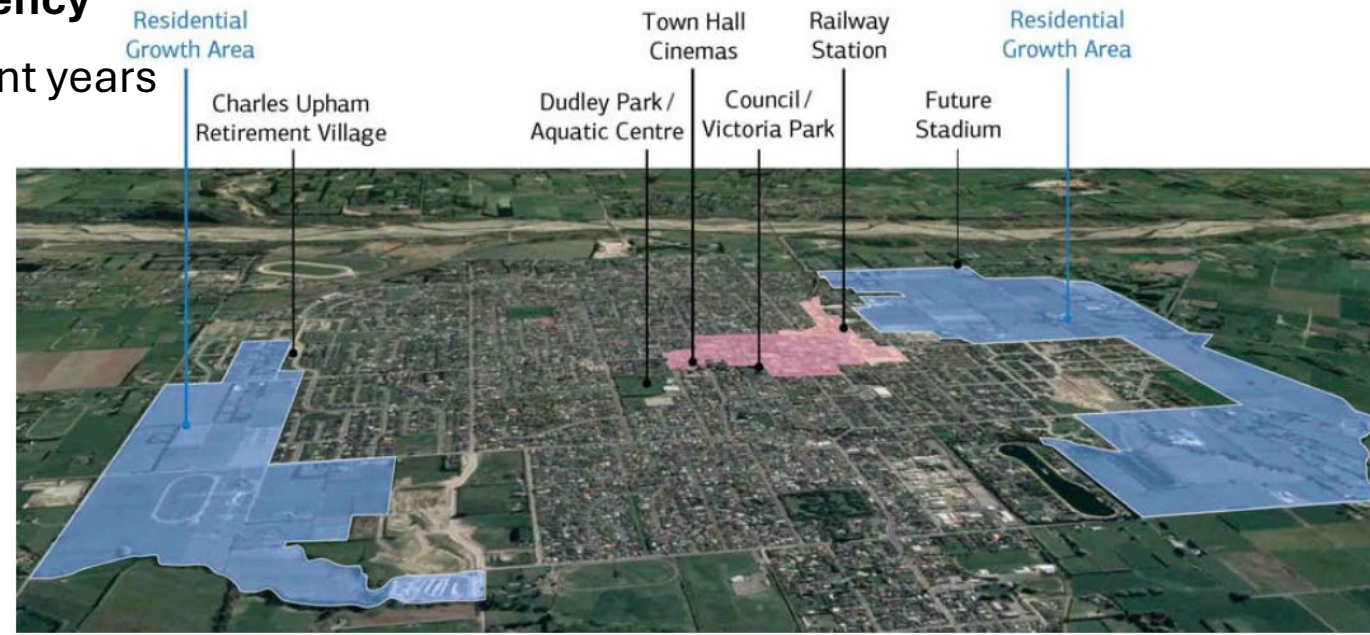


2. Our proposed approach



3. Rangiora town centre's big picture

- Significant role in District: **primary centre** for shopping and services by more than 60% - catchment to continue to increase
- Rangiora pop to reach more than **26,600 by 2053**, dwelling to 11,300
- Centre needs to accommodate **substantial increase** in retail, business, community services
- **Key Activity Centre** - focal point employment, community activities, transport network, suitable for intensive mixed-use development
- Sub-regionally, Rangiora exemplar in **self-sufficiency**
- Significant public and private **investment** in recent years



3. Rangiora town centre's big picture

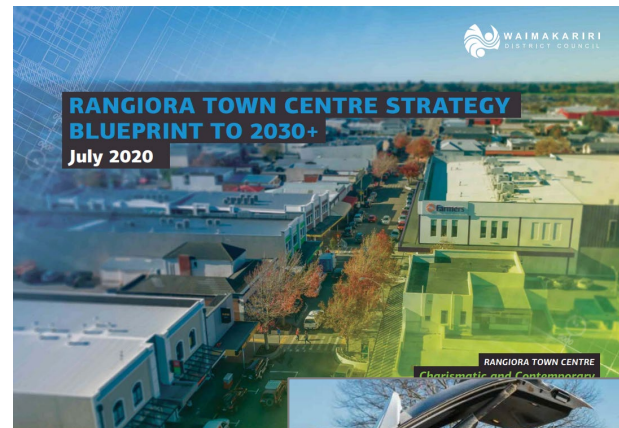
What makes a good town centre?

- Not just a place to shop, but **many functions**
- Amenity value, visual quality, coherence of urban environment provide **economic & social benefits**
- **Inviting** outdoor setting and public spaces with character
- Attractive and inviting **ground floor uses**
- Good parking and **accessibility**, including public transport, cycling etc
- Great ped environment to **encourage walking** along stores, shop, linger
- Opportunities for **public art**
- Wide range of facilities, activities and services that **bring people together** and add vitality and vibrancy

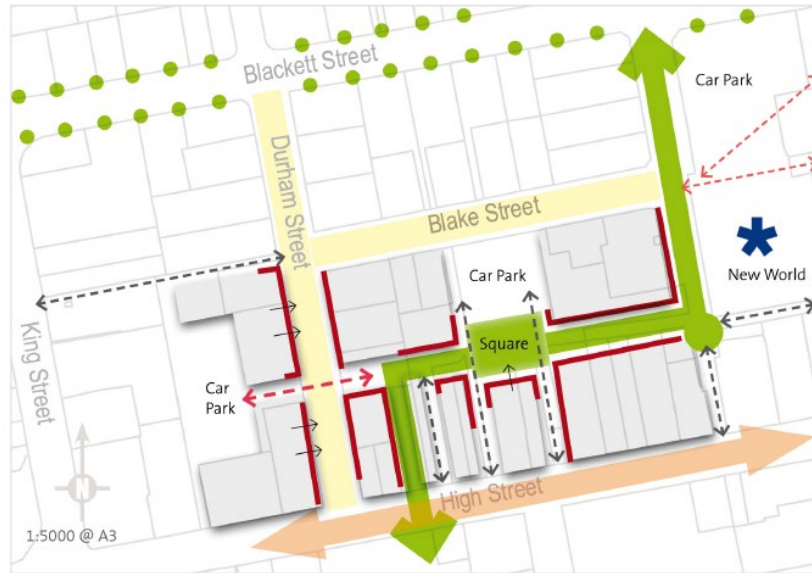


4. The long, strategic story to here

- Plans for this area have been critical part of Council's RTC strategic planning for many years....



• 2010 Rangiora Town Centre Strategy



Key

	Existing parks / open spaces		Boulevard planting		Improve existing pedestrian / cycle links
	New public / urban square		Streetscape improvements		Possible new pedestrian / cycle links
	Blocks		Local destinations		Green corridor to parks / open spaces
	Active ground floor uses				High Street



RTC
RANGIORA TOWN CENTRE
2020

RANGIORA TOWN CENTRE STRATEGY

Prepared by Policy & Strategy Team
September 2010



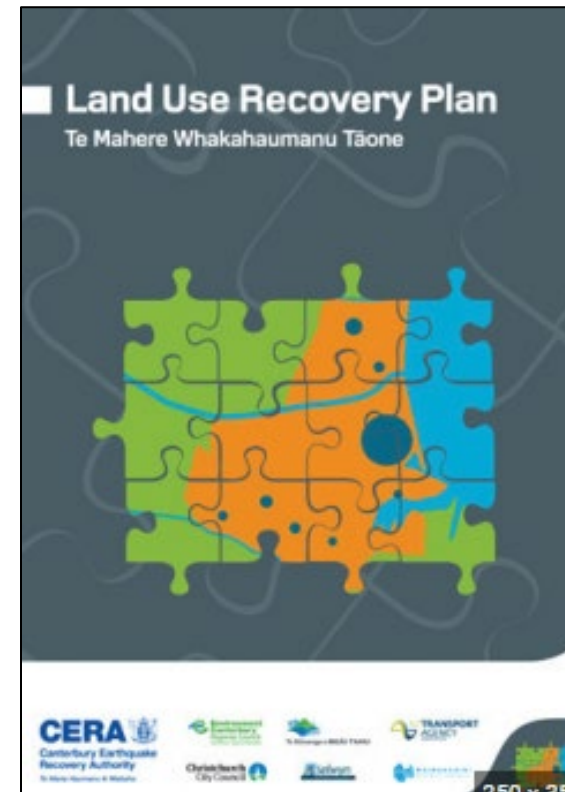
- **2010** Rangiora Town Centre Strategy
- **2011/12** Canterbury earthquakes



- **2010** Rangiora Town Centre Strategy
- **2011/12** Canterbury earthquakes
- **2012-13** Meetings with property owners



- **2010** Rangiora Town Centre Strategy
- **2011/12** Canterbury earthquakes
- **2012-13** Meetings with property owners
- **2013** Land Use Recovery Plan



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- **2011/12** Canterbury earthquakes
- **2012-13** Meetings with property owners
- **2013** Land Use Recovery Plan
- **2014** North of High Street Redevelopment Plan

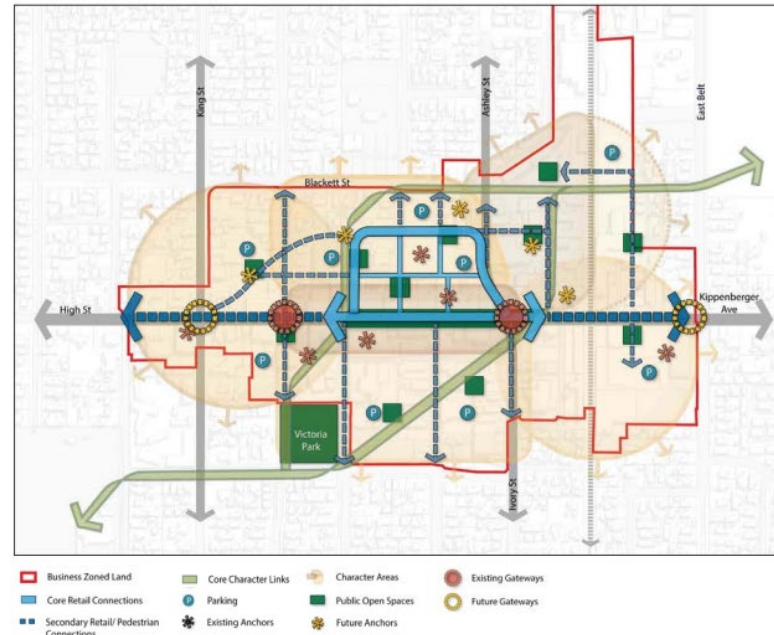


- **2010** Rangiora Town Centre Strategy
- **2011/12** Canterbury earthquakes
- **2012-13** Meetings with property owners
- **2013** Land Use Recovery Plan
- **2014** North of High Street Redevelopment Plan
- **2020** Rangiora Town Centre Strategy review

5. Complete the North of High Development in line with the Rangiora Central Outline Development Plan. This sees the extension of the laneways concept to create friendly and vibrant public places, supported by hospitality, new retail opportunities and public car parking. There are also opportunities for comprehensive redevelopment north of Blake Street.



Pulling the Key Concepts Together - Overall Master Concept



Master Concept:

- A conceptual 'green ribbon network' (core character links) that enables new pedestrian gateways and connections, a change in the shape and focus of the Centre and an opportunity to draw the rural character of the wider District into the Centre.
- A focus on the core Town Centre including core retail connections to create an intensity of uses to support its growth.
- Ensure development occurs in the optimal location (particularly along core and secondary retail connections) and the longer term vision for a compact Town Centre.
- Strengthen the uniqueness of the Town Centre through development of different character areas.
- Provide order and structure to the Town Centre through legible gateways, connections between key anchors, parking clusters in key peripheral locations and flexibility for growth.
- Create attractive, safe and distinctive public open spaces and key people attractions.

- 
- **2010** Rangiora Town Centre Strategy
 - **2011/12** Canterbury earthquakes
 - **2012-13** Meetings with property owners
 - **2013** Land Use Recovery Plan
 - **2014** North of High Street Redevelopment Plan
 - **2020** Rangiora Town Centre Strategy review
 - **2021** 2021-31 LTP included considerable funding for NoH and town centre parking projects

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- **2021** 2021-31 LTP included considerable funding for centre parking projects – kept in APs & LTPs since
- **2023** Funding for at-grade reconfiguration move forward to develop Integrated Transport Strategy
- **2024** Integrated Transport Strategy adopted – parking impt role

MOVING FORWARD:
WAIMAKARIRI INTEGRATED
TRANSPORT STRATEGY 2035+

>>>



- **2010** Rangiora Town Centre Strategy
- **2011/12** Canterbury earthquakes
- **2012-13** Meetings with property owners
- **2013** Land Use Recovery Plan
- **2014** North of High Street Redevelopment Plan
- **2020** Rangiora Town Centre Strategy review
- **2021** 2021-31 LTP included considerable funding for centre parking projects – kept in APs & LTPs since
- **2023** Funding for at-grade reconfiguration moved to development Integrated Transport Strategy
- **2024** Integrated Transport Strategy adopted – parking imp't role
- **2025** Rangiora Parking Management Plan adopted – committed Blake St carpark reconfiguration in the short term



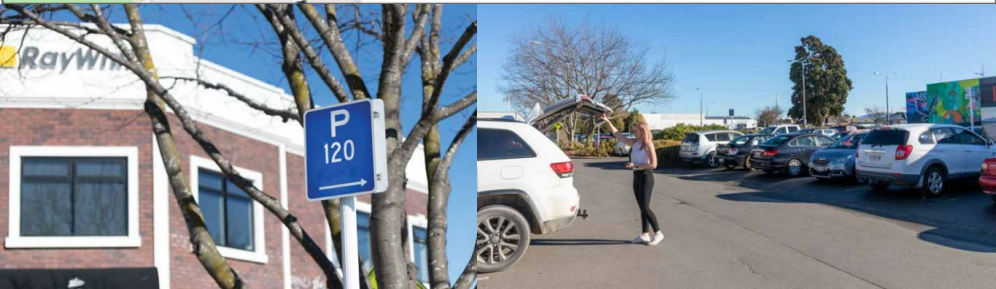
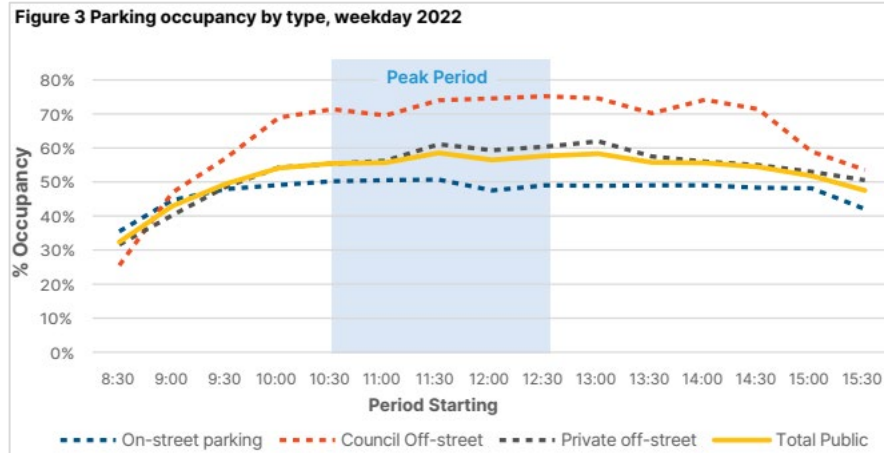
Rangiora Town Centre Parking Management Plan

June 2025



waimakariri.govt.nz

5. Parking demand & supply



5. Parking demand & supply

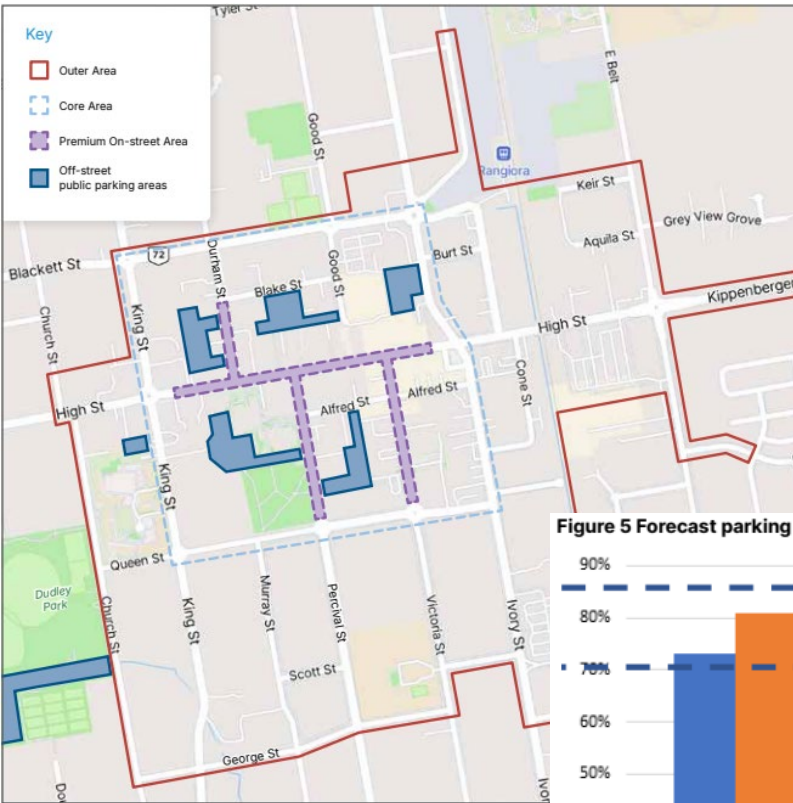
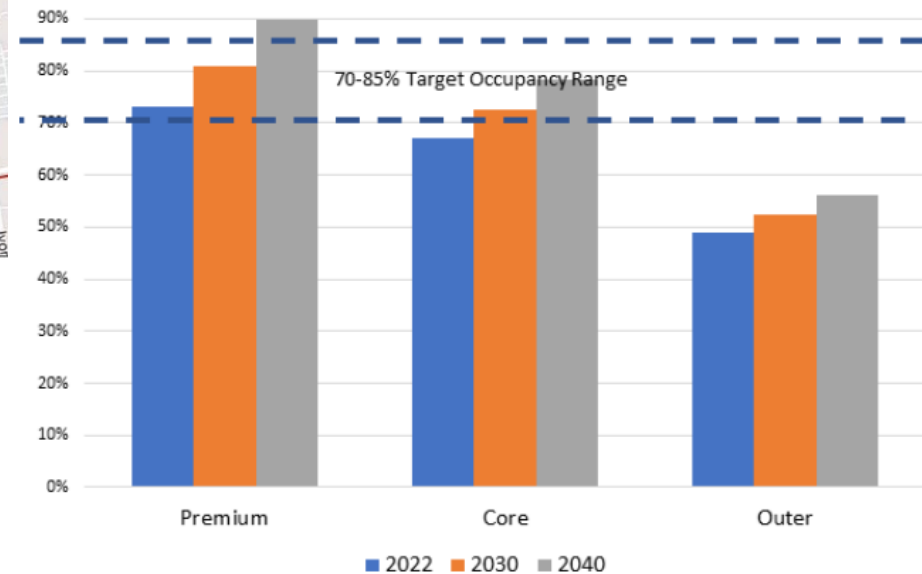


Figure 5 Forecast parking occupancy compared to target range



Optimise existing assets

- Refine time restrictions.
- Improve wayfinding.
- Improve parking enforcement.
- Extend time restrictions.
- Investigate opportunities to convert on-street parallel parking to angle parking.
- Review parking for special uses.
- Trial parking technology.
- Maintain agreements to provide public parking on private land.

Manage parking demand

- Investigate introducing graduated priced parking.

Increase parking supply

- Reconfigure off-street car park between Blake and High Streets
- Acquire another central site for more parking in medium term.
- Add another parking facility in long term.
- Assess on-site parking requirements for future major developments.

5. Parking demand & supply

So...

- Car parking plays key role in retail success of centre
 - North of High precinct is strategic within town centre – key to deepening town centre core and extend character and quality
 - Council commitment and budget to reconfigure (and enhance) Blake Street carpark – high demand & key location to support anchors, wider retail and pedestrian circuit
- ✓ Vibrant, attractive, pedestrian friendly, intensified centre supported by good parking



6. Objectives for site

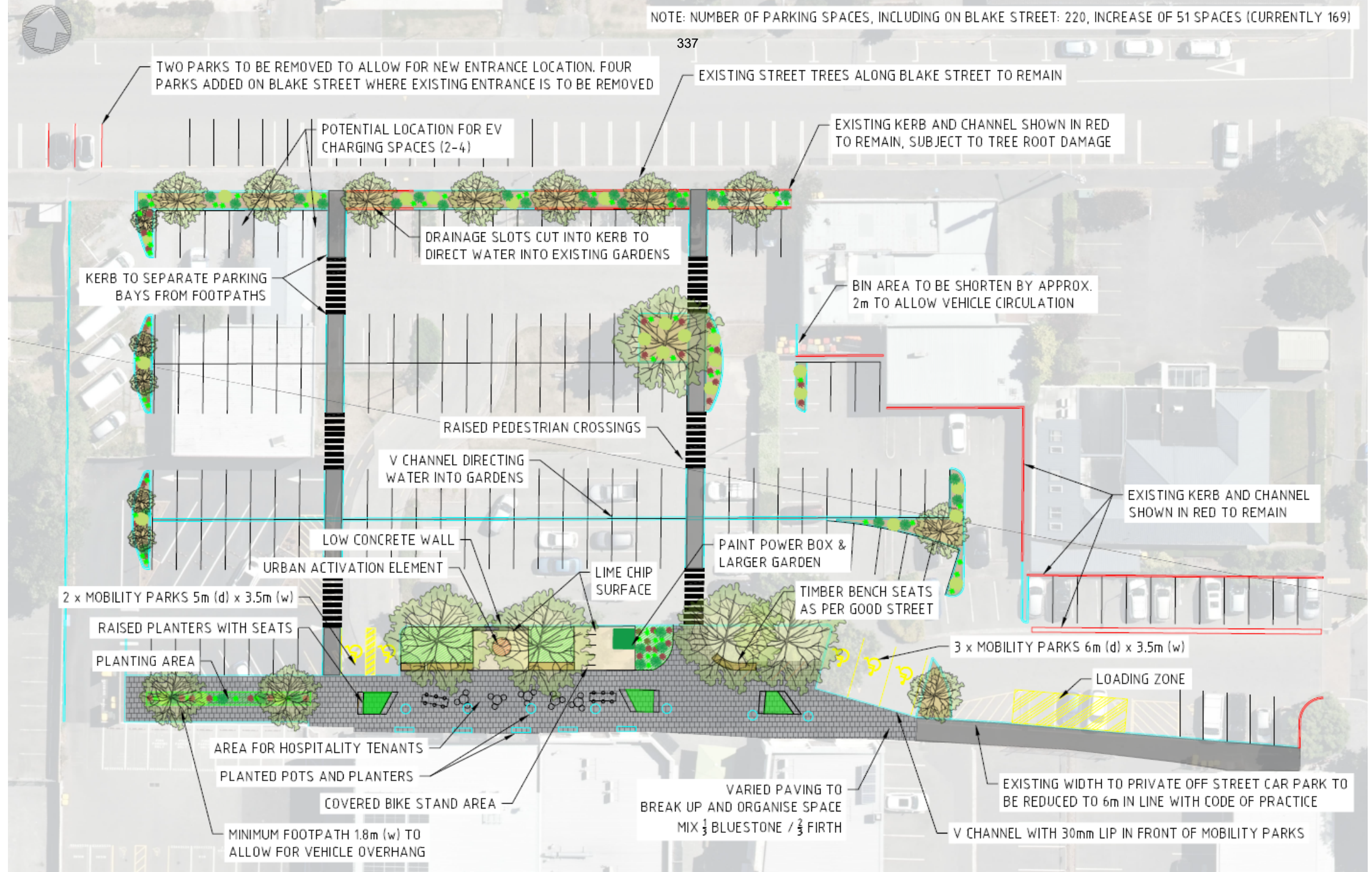
- Functional layout maximising Council's land holding and creating 'good' net gain of parking spaces to meet demand (PMP)
- Clear, safe and attractive pedestrian connections through carpark and to laneways
- Retention of trees + additional landscaping to soften and add interest
- Potential for new pedestrian spaces to maximise appeal of laneways
- Protection of long-term opportunity for built development
- Support for other modes through infrastructure, e.g. cycle stands
- Special parking needs are met: mobility, loading

Have we missed anything?



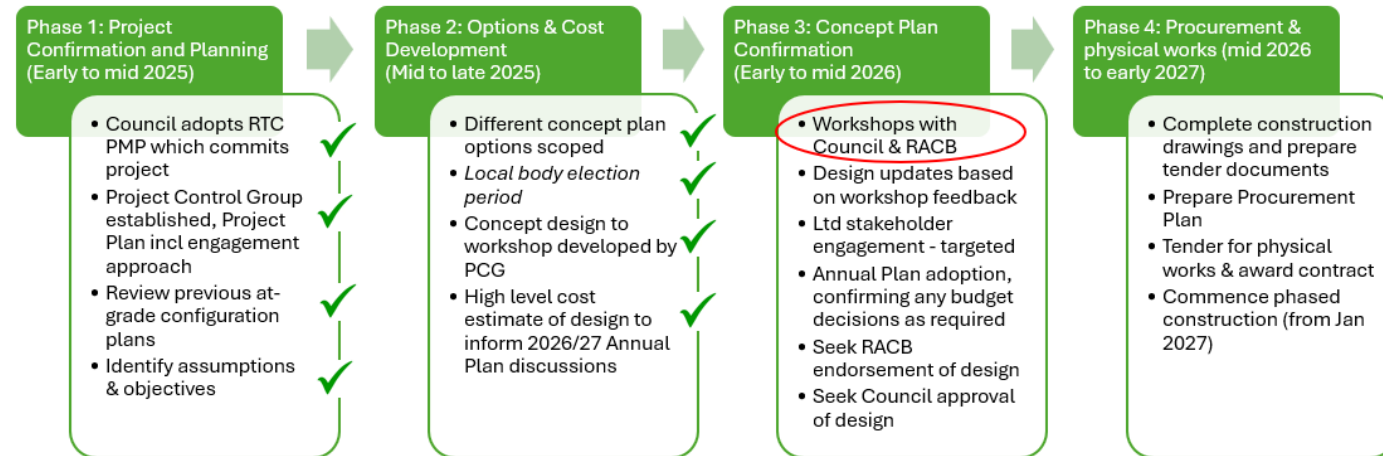
7. Draft concept for discussion

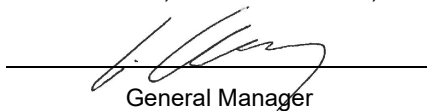
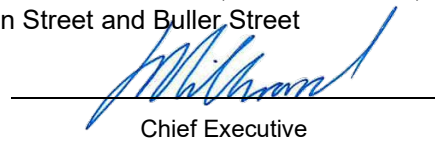
NOTE: NUMBER OF PARKING SPACES, INCLUDING ON BLAKE STREET: 220, INCREASE OF 51 SPACES (CURRENTLY 169)



8. Next steps

- Tomorrow: Waimakariri Access Group
- Mar: Utilities & Roding Committee workshop
- Apr: Other limited stakeholder engagement
- Jun: AP adoption – budget confirmation
- Jun: Report to RACB to endorse
- Jul: Report to U&R to approve
- Jul-Oct: construction drawings, tender docs, procurement, evaluation and award contract
- From Jan 2027: commence staged construction



WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION****FILE NO and TRIM NO:** RDG-03-09 / 251201228464**REPORT TO:** WOODEND-SEFTON COMMUNITY BOARD**DATE OF MEETING:** 08 June 2026**AUTHOR(S):** Shane Binder, Senior Transportation Engineer
Nithin Puthupparambil, Transportation Engineer**SUBJECT:** Request to Approve Intersection Controls on Jelfs Road, Lilburne Street, Broad Road, McGifferts Road, Vaughan Street and Buller Street**ENDORSED BY:**
(for Reports to Council,
Committees or Boards)
General Manager
Chief Executive**1. SUMMARY**

- 1.1. This report seeks approval from the Woodend-Sefton Community Board to install the following intersection controls:
 - 1.1.1. Give-way control on Jelfs Road at Woodend Beach Road
 - 1.1.2. Stop control on Lilburne Street at Lorimer Street
 - 1.1.3. Stop control on Broad Road (both approaches) at Upper Sefton Road
 - 1.1.4. Stop control on McGifferts Road at Upper Sefton Road
 - 1.1.5. Stop control on Vaughan Street and Buller Street at Cross Street
- 1.2. While a Give Way control is normally the default under the NZTA Traffic Control Devices Manual, stop control is recommended where safety constraints require a higher level of control. Stop control is considered necessary where:
 - There is not sufficient visibility, such as at the Lilburne Street / Lorimer Street and Vaughan Street / Buller Street / Cross Street intersections.
 - Consistency is required next to a high risk rail crossing, such as at the Broad Road / Upper Sefton Road intersection adjacent to the railway line.
 - Staff have identified safety issues, such as at the McGifferts Road / Upper Sefton Road intersection where no existing traffic control is present.
- 1.3. A review of Jelfs Road at Woodend Beach Road intersection was undertaken following a service request related to the lack of formal priority control. A Give Way control is proposed as there is sufficient visibility for this type of intersection control.
- 1.4. A review of Lilburne Street and Lorimer Street was undertaken following concerns regarding restricted sightlines for vehicles approaching from Lilburne Street. Staff confirmed this lack of visibility and identified it is primarily caused by existing fences and structures within private property.
- 1.5. A review of the Broad Road and Upper Sefton Road intersection was undertaken following routine audits and a KiwiRail Level Crossing Safety Impact Assessment. A lack of consistent controls was identified between the level crossing and the adjacent intersection, which increases the likelihood of drivers complying with the Give Way control but overlooking the required railway Stop control.

- 1.6. A review of the McGifferts Road and Upper Sefton Road intersection was also undertaken as part of the district-wide road network audit. It was identified by staff that the McGifferts Road approach currently operates without any form of traffic control, increasing the likelihood of a crash.
- 1.7. A review of the Vaughan Street and Buller Street at Cross Street intersection was undertaken following a service request related to restricted sightlines for vehicles approaching from Vaughan Street. Staff confirmed this lack of visibility and identified it is primarily caused by vegetation within private property.
- 1.8. As a result of the above assessments, these intersection controls are recommended by staff for implementation.

2. **RECOMMENDATION**

THAT the Woodend-Sefton Community Board:

- (a) **Receives** Report No. 251201228464.
- (b) **Approves** the following intersection control changes pursuant to section 2 of the Land Transport Rule: Traffic Control Devices 2004, with effect from the date of installation of appropriate signage:

Item	Road to be Controlled	Road to Remain Uncontrolled	Type of Control to be Imposed	Type of Control to be Revoked
1	Jelfs Road	Woodend Beach Road	Give Way	none
2	Lilburne Street	Lorimer Street	Stop	Give Way
3	Broad Road	Upper Sefton Road	Stop	Give Way
4	McGifferts Road	Upper Sefton Road	Stop	none
5	Vaughan Street	Cross Street	Stop	none
6	Buller Street	Cross Street	Stop	none

- (c) **Circulates** this report to the Utilities and Roading Committee for information.

3. **BACKGROUND**

- 3.1. Jelfs Road is a rural Local Road with an ADT of 97 and an operating (85th percentile) speed of 44 km/h. It has an uncontrolled tee-intersection with Woodend Beach Road, a rural Collector Road with an ADT of 1199 and an operating (85th percentile) speed of 80 km/h. The Jill Creamer Trail crosses Jelfs Road parallel to and immediately south of Woodend Beach Road. Trail users have to give way to motorists on Jelfs Road.
- 3.2. Lilburne Street is a low volume urban Local Road with a posted speed limit of 50 km/h. It has a give-way controlled tee-intersection with Lorimer Street, an urban Local Road with a posted speed limit of 50 km/h.
- 3.3. Broad Road is a rural Local Road with an ADT of 525 and an operating (85th percentile) speed of 88 km/h. It has a give-way controlled crossroads intersection with Upper Sefton Road, a rural Strategic Road with an ADT of 2,810 and an operating (85th percentile) speed of 103 km/h. Kiwirail's Main North Line crosses the south approach of Broad Road parallel to Upper Sefton Road; the level crossing is presently stop controlled.
- 3.4. McGifferts Road is a rural Local Road with an ADT of 38 and an operating (85th percentile) speed of 71 km/h. It has an uncontrolled tee-intersection with Upper Sefton Road, a rural Strategic Road with an ADT of 3,794 and an operating (85th percentile) speed of 101 km/h. Kiwirail's Main North Line crosses McGifferts Road parallel to and immediately south of Upper Sefton Road; the level crossing is presently stop controlled.

- 3.5. Vaughan Street is a low volume village Local Road with an ADT of 22 and an operating (85th percentile) speed of 34 km/h, and Buller Street is another low volume village Local Road with an ADT of 54 and an operating (85th percentile) speed of 44 km/h. Both these roads make an uncontrolled crossroad intersection with Cross Road, a village Local Road with an ADT of 84 and an operating (85th percentile) speed of 58 km/h.

4. **ISSUES AND OPTIONS**

- 4.1. Per the *Traffic Control Devices Manual Part 4*, give-way control is recommended as the default intersection control under normal operating circumstances.
- 4.2. Per the *Manual's* Section 4.1.2, stop control should be implemented at intersections "where at a point 9 m from the limit line on a controlled approach to the intersection a lack of visibility means that, at an approach speed of more than 10 km/h, a driver could not see a vehicle on an uncontrolled approach at a distance (in metres) of 1.2 times the numeric value of the speed (in km/h) exceeded by 15% of vehicles approaching on the main road."
- 4.3. Per the Waka Kotahi *Guidelines for the implementation of traffic control at crossroads* (RTS 1), the use of different controls (e.g., stop control, give-way control) on opposite approaches of a crossroads should be avoided to minimise driver confusion. It is therefore considered best practice to have the same traffic control on both side streets unless other safety considerations take higher priority.

Jelfs Road / Woodend Beach Road

- 4.4. A service request was lodged regarding visibility at the intersection of Jelfs Road and Woodend Beach Road. Staff have compiled available traffic data and undertaken site visit observations to evaluate intersection visibility.
- 4.5. Observations confirmed that traffic approaching from Jelfs Road have sufficient visibility of oncoming traffic on Woodend Beach Road and do not meet the *Manual* requirements for a Stop control.



Figure 1: Jelfs Road / Woodend Beach Road intersection with restricted visibility

- 4.6. The intersection presently has no marked traffic controls, so is governed by the Road User Rule's "T-intersection" rule in Clause 4.2. In order to minimise driver confusion at the intersection, it is recommended to implement a formal Give Way control on Jelfs Road.

Lilburne Street / Lorimer Street

- 4.7. Staff observed visibility limitations at the Lilburne Street / Lorimer Street intersection, due to private fencing and vegetation on public property. It was confirmed that the traffic approaching from Lilburne Street has restricted visibility of vehicles travelling along Lorimer Street. The available sight distance at this intersection does not meet the minimum requirements for a Give Way controlled approach as outlined in the *Manual*.



Figure 2: Lilburne Street / Lorimer Street intersection with restricted visibility.

- 4.8. Removal of fences and vegetation within private property is not considered a viable option, and therefore to improve safety at this location, it is recommended that the Give Way control on Lilburne Street be replaced with Stop control.



Figure 3: Sightlines as per TCD Manual at Lilburne Street / Lorimer Street intersection.

- 4.9. Routine audits of the roading network and Kiwirail level crossings raised concerns around a lack of consistent controls between the level crossings and closely spaced adjacent intersections at Broad Road / Upper Sefton Road and McGifferts Road / Upper Sefton Road.

Broad Road / McGifferts Road / Upper Sefton Road

- 4.10. The Level Crossing Safety Impact Assessment by Kiwirail on Broad Road noted the risk of motorists on Broad Road adhering to the give-way control at the intersection and ignoring the stop control at the level crossing, risking a crash with an approaching train. The district-wide road network audit identified that the McGifferts Road approach to Upper Sefton Road operates without any form of traffic control, increasing the likelihood of a crash occurring at the intersection.



Figure 4: Broad Road / Upper Sefton Road intersection



Figure 5: McGifferts Road / Upper Sefton Road

- 4.11. To address the safety risks and maintain consistency, it is recommended that Stop controls be implemented on both Broad Road approaches to Upper Sefton Road. The close spacing between the Broad Road intersection and the adjacent level crossing increases the likelihood of drivers complying with the Give Way but overlooking the required railway Stop control.
- 4.12. To improve safety and ensure consistency with nearby intersections and level-crossing controls, it is recommended that a Stop control be implemented at the McGifferts Road approach to Upper Sefton Road. This will maintain consistent controls at both conflict points.

Vaughan Street / Buller Street / Cross Street

- 4.13. A service request was lodged regarding visibility at the intersection of Vaughan Street and Buller Street at Cross Street. Staff have compiled available traffic data and undertaken site visit observations to evaluate intersection visibility.
- 4.14. Observations confirmed that traffic approaching from Vaughan Street have restricted visibility of oncoming traffic on Cross Road and sight distances do not meet the *Manual* requirements for a Stop control.



Figure 6: Vaughan Street / Cross Street intersection with restricted visibility.

- 4.15. The intersection presently has no marked traffic controls and removal of fences and vegetation within private property is not considered a viable option. Therefore, to improve safety at this location and to maintain consistent traffic control arrangements on the minor approaches, it is recommended to implement Stop control and the necessary pavement markings on Vaughan Street and Buller Street.

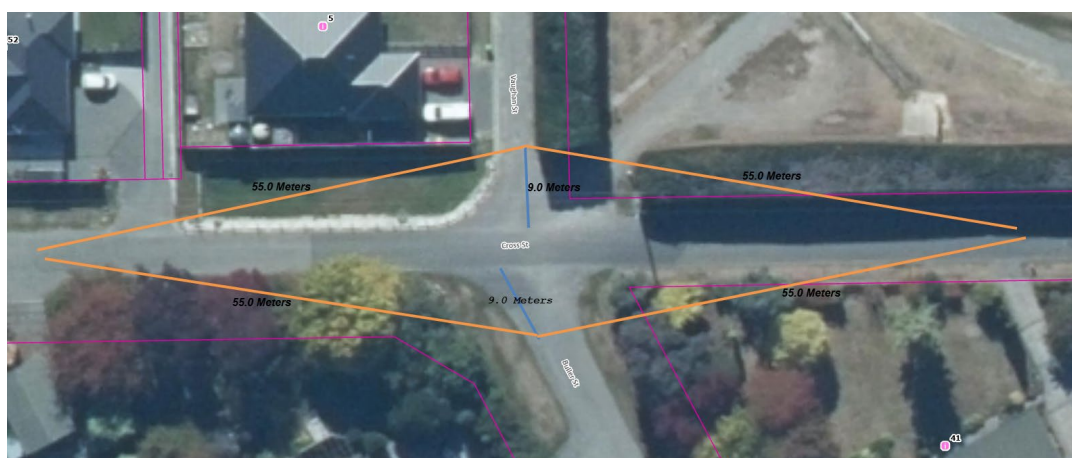


Figure 7: Sightlines as per TCD Manual at Vaughan Street / Buller Street / Cross Street intersection.

- 4.16. The Woodend-Sefton Community Board has the following options available to them:
- 4.17. Option One: Approve installation of intersection controls at the following locations
 - 4.17.1. Give Way control on Jelfs Road at Woodend Beach Road
 - 4.17.2. Stop control on Lilburne Street at Lorimer Street
 - 4.17.3. Stop control on Broad Road at Upper Sefton Road
 - 4.17.4. Stop control on McGifferts Road at Upper Sefton Road

4.17.5. Stop control on Vaughan Street and Buller Street at Cross Street

This option involves Woodend-Sefton Community Board approving the installation of Stop controls, consisting of signs and road markings, on all the above locations.

This is the recommended option because it allows for:

- Improved safety by ensuring vehicles come to a complete stop where sight distance does not meet Give Way thresholds and where rail-interface risks exist.
- Reduced risk of collisions through clearer priority and improved driver compliance, particularly at locations adjacent to level crossings.

4.18. Option Two: Approve a partial installation of Stop controls

This option involves the Woodend-Sefton Community Board approving the installation of controls at some but not all of the intersections.

This is not the recommended option as it does not address identified visibility, control consistency, and rail-interface concerns across all approaches, which could still pose safety risks and perpetuate driver confusion.

4.19. Option Three: Decline approval of any new intersection controls (retain status quo)

This option would see the current intersection controls (or lack thereof) retained.

This is not the recommended option because retaining the status quo does not address safety concerns at the four intersections.

Implications for Community Wellbeing

There are implications on community wellbeing by the issues and options that are the subject matter of this report. Setting appropriate intersection controls helps reduce the risk of harm from a crash.

4.20. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. **Mana whenua**

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. **Groups and Organisations**

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. **Wider Community**

The proposed actions outlined in this report are expected to have minimal impact on the wider community, and significant public interest is unlikely, as the changes being implemented are minor in nature. Consequently, public consultation with adjacent residents or the broader community has not been undertaken.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. **Financial Implications**

There are financial implications of the decisions sought by this report. There are minimal costs associated with installing intersection control, chiefly new signs and limit line pavement marking.

The costs are estimated to be \$4,600 and can be accommodated within the Road Maintenance budgets (Signs Renewal PJ 100183.000.5134 & Pavement Marking GL 10.270.582.2500).

This budget is included in the Annual Plan/Long Term Plan.

6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do not have sustainability and/or climate change impacts as the effects of intersection control are quite localised.

6.3. **Risk Management**

There are not risks arising from the adoption/implementation of the recommendations in this report.

6.4. **Health and Safety**

There are health and safety risks arising from the adoption/implementation of the recommendations in this report. Failure to provide appropriate intersection controls can increase the risk of harm to motorists.

Physical works will be undertaken through the Road Maintenance contract. The Road Maintenance contractor has a Health and Safety Plan and a SiteWise score of 100.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from the recommendations in this report. In particular, the following community outcomes are of relevance to the issue under discussion:

Social: a place where everyone can have a sense of belonging

- Our community has equitable access to the essential infrastructure and services required to support community wellbeing.

Environmental: a place that values and restores our environment

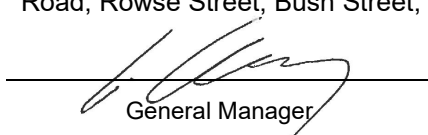
- The natural and built environment in which people live is clean, healthy and safe.
- Our communities are able to access and enjoy natural areas and public spaces.

Economic: a place that is supported by a resilient and innovative economy

- Enterprises are supported and enabled to succeed.
- Infrastructure and services are sustainable, resilient, and affordable.

7.4. **Authorising Delegations**

As per Part 3 of the WDC *Delegations Manual*, the Community Board has the delegated authority to approve control signs on streets (e.g., stop, give way, etc.).

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR DECISION****FILE NO and TRIM NO:** RDG-03-09 / 251201228460**REPORT TO:** RANGIORA-ASHLEY COMMUNITY BOARD**DATE OF MEETING:** 10 June 2026**AUTHOR(S):** Shane Binder, Senior Transportation Engineer
Nithin Puthupparambil, Transportation Engineer**SUBJECT:** Request to approve intersection controls on Charles Street, Pentecost Road, Rowse Street, Bush Street, Banks Place, and George Street**ENDORSED BY:**
(for Reports to Council,
Committees or Boards)
General Manager
Chief Executive**1. SUMMARY**

- 1.1. This report seeks approval from the Rangiora-Ashley Community Board to change the following intersection controls from Give Way to Stop:
 - 1.1.1. Stop control on George Street (both approaches) at Percival Street
 - 1.1.2. Stop control on Charles Street (both approaches) at King Street
 - 1.1.3. Stop control on Pentecost Road at South Belt
 - 1.1.4. Stop control on Rowse Street at South Belt
 - 1.1.5. Stop control on Bush Street at South Belt
 - 1.1.6. Stop control on Banks Place at South Belt
- 1.2. A review of the George Street and Percival Street intersection was initiated following a service request from a resident regarding high weekend on-street parking demand. The intersection currently has a 'Give Way' control. Site observations confirmed that visibility for both George Street approaches is insufficient to meet the Traffic Control Devices (TCD) Manual requirements for retaining a give-way control.
- 1.3. A review of the Charles Street and King Street intersection was initiated following a service request from a resident regarding drivers failing to give way. The intersection currently has a 'Give Way' control. Site observations confirmed that visibility for both Charles Street approaches is insufficient to meet the TCD Manual requirements for retaining a give-way control.
- 1.4. A service request from an elected member prompted a visibility assessment of multiple intersections along South Belt, including Pentecost Road, Rowse Street, Bush Street, and Banks Place. All intersections currently have 'Give Way' controls in place. Staff confirmed that these side street approaches have restricted sight distance of vehicles travelling on South Belt, with available visibility falling below the minimum requirements for a give-way control.
- 1.5. All intersections have been checked to see whether the sight lines could be increased, however it has been determined that, due to the presence of fences, hedges and trees within private property, sight distance is not able to be improved to a point where the change would not be required.

2. **RECOMMENDATION**

THAT the Rangiora-Ashley Community Board:

- (a) **Receives** Report No. 251201228460.
- (b) **Approves** the following intersection control changes pursuant to section 2 of the Land Transport Rule: Traffic Control Devices 2004, with effect from the date of installation of appropriate signage:

Item	Road to be Controlled	Road to Remain Uncontrolled	Type of Control to be Imposed	Type of Control to be Revoked
1	George Street	Percival Street	Stop	Give Way
2	Charles Street	King Street	Stop	Give Way
3	Pentecost Road	South Belt	Stop	Give Way
4	Rowse Street	South Belt	Stop	Give Way
5	Bush Street	South Belt	Stop	Give Way
6	Banks Place	South Belt	Stop	Give Way

- (c) **Circulates** this report to the Utilities and Roothing Committee for information.

3. **BACKGROUND**

- 3.1. The review of six intersections was undertaken as a result of service requests which questioned visibility at intersections within Rangiora.
- 3.2. A review and site assessment was undertaken for each intersection to determine the appropriateness of the existing intersection controls.
- 3.3. George Street is an urban Local Street with an ADT of 701 and an operating (85th percentile) speed of 47 km/h. It has a give-way controlled crossroads intersection with Percival Street which is an urban Collector Road with an ADT of 2104 and an operating (85th percentile) speed of 52 km/h.
- 3.4. Charles Street is an urban Local Street with an ADT of 467 and an operating (85th percentile) speed of 50 km/h. It has a give-way controlled crossroads intersection with King Street which is an urban Collector Road with an ADT of 4518 and an operating (85th percentile) speed of 56 km/h.
- 3.5. Pentecost Road is an urban Local Street with an ADT of 978 and an operating (85th percentile) speed of 54 km/h. It has a give-way controlled tee-intersection with South Belt which is an urban Collector Road with an ADT of 2244 and an operating (85th percentile) speed of 54 km/h.
- 3.6. Rowse Street is an urban Local Street with an ADT of 349 and an operating (85th percentile) speed of 45 km/h. It has a give-way controlled tee-intersection with South Belt which is an urban Collector Road as noted above.
- 3.7. Bush Street is an urban Local Street with an ADT of 1500 and an operating (85th percentile) speed of 52 km/h. It has a give-way controlled tee-intersection with South Belt which is an urban Collector Road with an ADT of 4035 and an operating (85th percentile) speed of 54 km/h.

- 3.8. Banks Place is a low-volume residential cul-de-sac, and staff do not measure traffic volumes or speeds on these types of streets. However, 17 properties get access from Banks Place. It has a give-way controlled tee-intersection with South Belt which is an urban Collector Road as noted above.

4. **ISSUES AND OPTIONS**

- 4.1. Per the NZTA *Traffic Control Devices Manual Part 4*, give-way control is recommended as the default intersection control under normal operating circumstances.
- 4.2. Per the *Manual's* Section 4.1.2, stop control should be implemented at intersections "where at a point 9 m from the limit line on a controlled approach to the intersection a lack of visibility means that, at an approach speed of more than 10 km/h, a driver could not see a vehicle on an uncontrolled approach at a distance (in metres) of 1.2 times the numeric value of the speed (in km/h) exceeded by 15% of vehicles approaching on the main road."
- 4.3. Per the Waka Kotahi *Guidelines for the implementation of traffic control at crossroads* (RTS 1), the use of different controls (e.g., stop control, give-way control) on opposite approaches of a crossroads should be avoided to minimise driver confusion. It is therefore considered best practice to have the same traffic control on both side streets unless other safety considerations take higher priority.
- 4.4. All the intersections have restricted visibility due to fencing / hedges / landscaping on private property, which could not be mitigated by any other changes within the road reserve.

George Street / Percival Street

- 4.5. A complaint was received regarding the visibility at the intersection of George Street and Percival Street, due to high weekend on-street parking demand. Staff have compiled available traffic data and site visit observations to evaluate intersection visibility.
- 4.6. Weekday and weekend site observations noted generally good parking behaviour in regard to the 6m parking restriction stated in the Road User Rule. However, the review confirmed that both approaches from George Street have restricted visibility to vehicles travelling along Percival Street. The available sight distance at this intersection does not meet the minimum requirements for a Give Way controlled approach as outlined in the *Manual*.



Figure 1: George Street / Percival Street intersection with restricted visibility

- 4.7. To improve safety at this location, it is recommended that the Give Way control on George Street be replaced with a Stop control and the necessary pavement markings.



Figure 2: Sightlines as per TCD Manual at George Street / Percival Street intersection.

Charles Street / King Street

- 4.8. A service request was received regarding failure-to-give-way risk at the intersection of Charles Street and King Street. Staff have compiled available traffic data and site visit observations to evaluate the risk of “avenue effect”, which is where the driver’s eye is drawn through the intersection, with the risk of missing the intersection control.
- 4.9. Observations confirmed that both side roads have insufficient visibility of oncoming traffic on Charles Street and not meeting the *Manual* requirements for a Give Way control.



Figure 3: Avenue effect on King Street.

- 4.10. In order to raise the conspicuity of the intersection, the existing signposts are proposed to be shifted closer to King Street and a flush median installed in the middle of both approaches of Charles Street, as shown below in Figure 4.
- 4.11. These improvements are included within the 2026/27 Minor Safety Programme which will be taken to the Community Boards for comment May / June 2026 for feedback and then to the Utilities and Roading Committee for approval.



Figure 4: Charles Street / King Street proposed markings

South Belt corridor intersections

- 4.12. This review was undertaken following a query from an elected member regarding visibility at several intersections along South Belt. Staff have compiled available traffic data and undertaken site visit observations to evaluate intersection visibility.
- 4.13. Site observations confirmed that the approach from Pentecost Road has restricted visibility of vehicles travelling along South Belt. The available sight distance at this intersection does not meet the minimum requirements for a Give Way controlled approach as outlined in the *Manual*.



Figure 5: Pentecost Road / South Belt intersection with restricted visibility.

- 4.14. To ensure drivers appropriately assess gaps before entering South Belt, it is recommended that the existing Give Way control on Pentecost Road be upgraded to a Stop control, including installation of Stop signs and associated road markings.



Figure 6: Sightlines as per TCD Manual at Pentecost Road / South Belt intersection.

- 4.15. Visibility constraints were also observed at the Rowse Street approach to South Belt. The approach does not achieve the required sight distance for a Give Way controlled intersection in accordance with the TCD Manual.



Figure 7: Rowse Street / South Belt intersection with restricted visibility

- 4.16. To improve safety at this location, it is recommended that the Give Way control on Rowse Street be replaced with a Stop control and the necessary pavement markings.



Figure 8: Sightlines as per TCD Manual at Rowse Street / South Belt intersection.

- 4.17. Staff identified limited sight lines for drivers approaching South Belt from Bush Street, particularly when assessing northbound traffic. The observed visibility is below the TCD Manual thresholds necessary for a Give Way controlled intersection.



Figure 9: Bush Street / South Belt intersection with restricted visibility.

- 4.18. It is recommended that the Give Way control on Bush Street be replaced with a Stop control, including the installation of Stop signs and associated road markings.

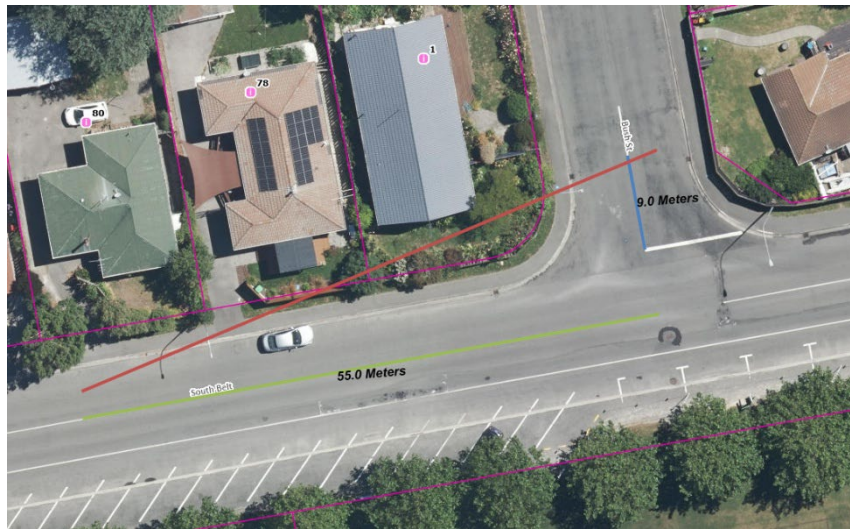


Figure 10: Sightlines as per TCD Manual at Bush Street / South Belt Intersection.

- 4.19. Banks Place, while a low-volume residential cul-de-sac, also has limited visibility for vehicles exiting onto South Belt. The available sight distance does not meet the TCD Manual requirements for retaining a Give Way control.



Figure 11: Banks Place / South Belt intersection with restricted visibility.

- 4.20. To improve safety for residents entering South Belt, it is recommended that the existing Give Way control on Banks Place be upgraded to a Stop control, with Stop signs and the appropriate road markings installed.



Figure 12: Sightlines as per TCD Manual at Banks Place / South Belt intersection.

- 4.21. All the above-mentioned intersections have restricted visibility due to fencing / hedges / landscaping on private property, which could not be mitigated by any other changes within the road reserve.
- 4.22. The Rangiora-Ashley Community Board has the following options available to them:
- 4.23. Option One: Approve the removal of the existing Give Way controls and installation of new Stop intersection controls at the following locations:
- 4.23.1. Stop control on George Street (both approaches) at Percival Street
 - 4.23.2. Stop control on Charles Street (both approaches) at King Street
 - 4.23.3. Stop control on Pentecost Road at South Belt
 - 4.23.4. Stop control on Rowse Street at South Belt
 - 4.23.5. Stop control on Bush Street at South Belt
 - 4.23.6. Stop control on Banks Place at South Belt

This option involves Rangiora-Ashley Community Board approving the removal of the existing Give Way controls and installation of Stop controls, consisting of signs and road markings, on all the above locations.

This is the recommended option because it allows:

- Improved safety at the above intersections by mandating vehicles come to a complete stop before entering the intersection.
- Reduced risk of collisions due to poor visibility.

- 4.24. Option Two: Approve a partial installation of Stop controls.

This option involves Rangiora-Ashley Community Board approving the installation of Stop controls only at some of the intersections.

This is not the recommended option as it does not address visibility concerns for all approaches, which could still pose safety risks.

4.25. Option Three: Decline approval of any new intersection controls (retain status quo)

This option would see the current intersection controls retained.

This is not the recommended option because failure to implement the proposed intersection controls does not address safety concerns at the six intersections.

Implications for Community Wellbeing

There are implications on community wellbeing by the issues and options that are the subject matter of this report. Setting appropriate intersection controls helps reduce the risk of harm from a crash.

4.26. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.3. Wider Community

The proposed actions outlined in this report are expected to have minimal impact on the wider community, and significant public interest is unlikely, as the changes being implemented are minor in nature. Consequently, public consultation with adjacent residents or the broader community has not been undertaken.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are financial implications of the decisions sought by this report. There are minimal costs associated with installing intersection control, chiefly new signs and limit line pavement marking.

The costs for King Street / Charles Street are estimated to be \$5,300 and can be accommodated within the 2026/27 Minor Safety Programme, and the cost for other 5 intersections mentioned in the report are estimated to be a total of \$8,100, which can be accommodated within Road Maintenance budgets (Pavement Marking GL 10.270.582.2500 and Signs Renewal PJ 100183.000.5134)

This budget is included in the Annual Plan/Long Term Plan.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts as the effects of intersection control are quite localised.

6.3. Risk Management

There are not risks arising from the adoption/implementation of the recommendations in this report.

6.4. Health and Safety

There are health and safety risks arising from the adoption/implementation of the recommendations in this report. These are considered minor.

Physical works will be undertaken through the Road Maintenance contract. The Road Maintenance contractor has a Health and Safety Plan and a SiteWise score of 100.

7. **CONTEXT**

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Section 2 of the Land Transport Rule: Traffic Control Devices requires a Road Controlling Authority to "authorise and, as appropriate, install or operate traffic control devices."

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from the recommendations in this report. In particular, the following community outcomes are of relevance to the issue under discussion:

Social: a place where everyone can have a sense of belonging

- Our community has equitable access to the essential infrastructure and services required to support community wellbeing.

Environmental: a place that values and restores our environment

- The natural and built environment in which people live is clean, healthy and safe.
- Our communities are able to access and enjoy natural areas and public spaces.

Economic: a place that is supported by a resilient and innovative economy

- Enterprises are supported and enabled to succeed.
- Infrastructure and services are sustainable, resilient, and affordable.

7.4. **Authorising Delegations**

As per Part 3 of the WDC *Delegations Manual*, the Community Board has the delegated authority to approve control signs on streets (e.g., stop, give way, etc.).