Ashburton District Council

Agenda

Notice of Meeting:

An **Emergency Meeting of the Ashburton District Council** will be held on:

Date: **Monday 18 July 2022**

Time: **10.30am**

Venue: **Council Chamber**
137 Havelock Street, Ashburton

Membership

Mayor	Neil Brown
Deputy Mayor	Liz McMillan
Members	Leen Braam
	Carolyn Cameron
	John Falloon
	Rodger Letham
	Lynette Lovett
	Angus McKay
	Diane Rawlinson
	Stuart Wilson

Meeting Timetable

Time	Item
10.30am	**Emergency Council meeting commences**

1 **Apologies**

2 **Extraordinary Business**

3 **Declarations of Interest**

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

Reports

4. Endorsement of completed Waste Assessment for the Waste Management and Minimisation Plan (WMMP) 2022

Author *Neil McCann, Group Manager Infrastructure Services*

Manager *Hamish Riach, Chief Executive*

Summary

- The purpose of this report is to endorse the completed Waste Assessment for the Waste Management and Minimisation Plan (WMMP) 2022, and proceed with the new WMMP 2022, to meet legislative requirements under the Waste Minimisation Act 2008.

Recommendation

1. **That** Council notes that the 2022 waste assessment is now complete as per Section 51 of the Waste Minimisation Act 2008.
2. **That** Council considers the 2016 WMMP in light of the Waste Assessment 2022.
3. **That** Council proceeds with the new WMMP in light of the Waste Assessment 2022.

Attachment

Appendix 1 Waste Assessment 2022

Background

Draft WMMP

1. A Waste Management & Minimisation Plan (WMMP) describes Council's vision, goals and targets for waste minimisation, and outlines an action plan to achieve the desirable outcomes.

2. The Waste Management Act 2008 (WMA) requires every TA to complete a formal review of its existing WMMP at least every six years. The review must be consistent with WMA Sections 50 and 51.

3. Ashburton District Council (ADC)'s WMMP was adopted in 2016 and due for review in May/June 2022 as per the six-year statutory timeframe set in the WMA.

4. ADC is currently progressing the WMMP review with the following milestones achieved:

    - Waste Assessment document dated April 2002
    - New WMMP drafted in April 2022
    - Medical Officer of Health feedback on the waste assessment received on 13 July 2022.

5. The Medical Officer of Health feedback was the last milestone for the Waste Assessment to be complete. In order to be eligible for levy payment, ADC is now required to make a decision in light of this Waste Assessment.

6. ADC has considered their 2016 WMMP in light of the 2022 Waste Assessment and made the decision to proceed with a new plan, which is currently being drafted for adoption on 27 July 2022.

Options analysis

Option one – proceed with the 2022 WMMP

7. If Council agrees to proceed with the 2022 WMMP in light of the completed waste assessment, it will meet its legislative obligations under the Waste Minimisation Act 2008. This will enable ADC to receive the $66k waste levy for the quarter ending July 2022.

Option two – do not proceed with the 2022 WMMP

8. If Council does not proceed with the 2022 WMMP, it will fail to meet its legislative obligations under the Waste Minimisation Act 2008, by not meeting the deadline for the formal review of the existing WMMP. Council would not be entitled to the $66k waste levy, which has been included in the 2022/3 Annual Plan to fund waste minimisation activities.

Legal/policy implications

9. The WMMP 2022 document has been prepared as required by the Waste Minimisation Act 2008.

Financial implications

Requirement	Explanation
What is the cost?	If the recommendations are not adopted, ADC will not receive the waste levy of $66k.
Is there budget available in LTP / AP?	The $66k waste levy is included in the Annual Plan 2022/23 as revenue to fund waste minimisation activities.
Where is the funding coming from?	Solid Waste Management and Recycling Budget
Are there any future budget implications?	There will be implications as described above.
Reviewed by Finance	Erin Register; Finance Manager

Significance and engagement assessment

Requirement	Explanation
Is the matter considered significant?	No
Level of significance	Medium
Level of engagement selected	
Rationale for selecting level of engagement	High community interest and high community impact has driven the engagement approach for the WMMP. This report does not require any further engagement to be undertaken.
Reviewed by Strategy & Policy	Toni Durham; Strategy & Policy Manager

Next steps

Date	Action / milestone
July 27	Presentation of the Final Draft to Council and WMMP adopted
July 28	WMMP takes effect
July 28	WMMP Action plans are addressed in the next LTP 2024-2028

Ashburton District Council Waste Assessment

May 2022

Approved by

Duncan Wilson

(Project Director)

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Acknowledgements

Disclaimer

Contents

1 Introduction

This Waste Assessment has been prepared for Ashburton District Council (the 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 our 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 the Council is able to meet its statutory obligations.

Statement of Proposals

The statement of proposals sets out what actions are proposed to be taken forward. The proposals will be carried forward into the Waste Management and Minimisation Plan (WMMP).

Appendices

The appendices contain additional waste management data and further detail about facilities in each district. This section includes the statement 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
- 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 TAs to promote effective and efficient waste management and minimisation within their district. To achieve this, all TAs are required by the legislation to 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. 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].

A key issue for 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 the TA'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 2010 also makes clear that TAs have a statutory obligation (under the WMA) to promote effective and efficient waste management and minimisation in their district. This applies to all waste and materials flows in the district, not just those controlled by councils.

Although the WMA is currently subject to review (as discussed further below in section 1.5.3), there has not been any indication that these requirements would change as a result.

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's long tem plans (LTPs). For some assets and services, it is necessary to consider a longer timeframe and so this is taken into account where appropriate.

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:

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

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

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 Ashburton district is Transwaste Canterbury's Kate Valley landfill, which has a landfill gas capture system in place. There is also a Class 1 disposal facility within the district.

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.

The WMMP also considers disposal of biosolids, specifically waste products from the waste water treatment system (sludge).

1.4.4 Public Health Issues

Protecting public health is one of the original reasons for local authority involvement in waste management. The New Zealand Waste Strategy 2010 contains the twin high-level goals of "Reducing the harmful effects of waste", and "Improving the efficiency of resource use". In terms of addressing waste management in a strategic context, protection of public health can be considered one of the components entailed in "reducing harm".

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 is expected to be added emphasis on workplace health and safety under the Health and Safety at Work Act 2015. This legislation could impact on the choice of collection methodologies and working practices and the design of waste facilities, for example.

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 New Zealand Waste Strategy: Reducing Harm, Improving Efficiency (NZWS) is the Government's core policy document concerning waste management and minimisation in New Zealand. The two goals of the NZWS are:

1. Reducing the harmful effects of waste
2. Improving the efficiency of resource use.

Section 44 of the WMA requires councils to have regard to the NZWS when preparing their WMMP.

For the purpose of this Waste Assessment, the council has given regard to the NZWS and the current WMMP (2017).

MfE has released a draft revised 'New Zealand Waste Strategy' (the Strategy), which was open for consultation until 10th December 2021. The new draft Strategy has a focus on achieving a more 'circular economy' for waste and sets out a multi-decade pathway towards this.

The MfE are currently reviewing submission responses, and the final form of the strategy is not yet known.

The consultation document[2] includes:

- A review of the current situation with waste management in New Zealand, including our performance in the global context
- A proposed new vision and principles for New Zealand
- A staged transition process, with three stages described
- A more detailed description of what stage one might look like
- Targets
- Proposals to review associated legislation.

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

The proposed direction of the draft New Zealand Waste Strategy, the supporting actions, and the suggested targets all have clear implications for the future direction of waste management and minimisation in this country.

- The overall direction of the Waste Strategy is towards a circular economy;
- 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; and
- The targets focus on reducing waste generation and waste disposal by 2030 – by quite significant proportions.

Given that the draft was developed in partnership with an industry focus group with representatives from across the sector, it presumably has wide-ranging support and seems unlikely to change significantly in its final form. The alignment with work to reduce emissions makes this particularly unlikely for the aspects that relate specifically to organic waste.

1.5.2 Emissions Reduction Plan (Draft)

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.

The recommendations for the waste sector included an increase in waste minimisation infrastructure investments to decrease methane emissions from waste by at least 40% by 2035 from 2017 levels[3]. 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).

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*

[2] https://environment.govt.nz/assets/publications/waste-strategy-and-legislation-consultation-document-.pdf
[3] https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/chapter-summaries/

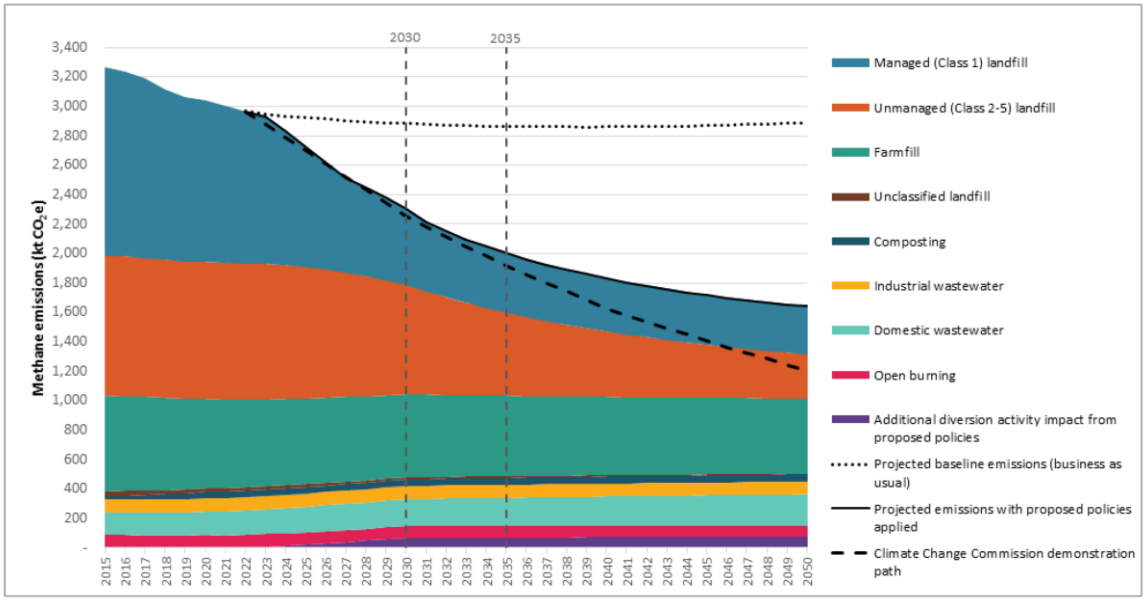
policies will not deliver the emissions reductions we must achieve." Comprehensive action is required to reduce waste overall, divert waste from landfill disposal, and improve/extend landfill gas capture systems.

The main source of biogenic methane emissions from the waste sector is the anaerobic decomposition of organic wastes in landfill (81%). As one possible way to significantly reduce this, the emissions reduction plan proposes "*key organic materials such as food, green, and paper waste could also be banned from Class 1 landfills by 2030*" with a note that this could also be extended to wood waste. Further possible methods to reduce organic waste going to disposal include food and green waste collections, services to enable commercial premises to divert food and green waste, better paper and cardboard recycling, and improvements to infrastructure such as transfer stations and material recovery facilities (MRFs).

Other relevant proposals relate to reducing the generation of food waste, construction and demolition waste, and options to divert treated timber from disposal.

It is worth noting that even with all of the initiatives proposed this would still fall short of achieving the CCC's proposed target for waste emissions, as shown in the chart below:

Figure 1: Total projected methane emissions from waste showing the impact of proposed combined waste policy options



Source: Ministry for the Environment. 2021. *Te hau mārohi ki anamata | Transitioning to a low-emissions and climate-resilient future: Have your say and shape the emissions reduction plan.* Wellington: Ministry for the Environment.

1.5.3 Waste Minimisation Act 2008

Alongside the development of a revised NZWS, 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 NZWS, 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.

The WMA has been amended by the 2021 waste disposal levy regulations[4], which set out the progressive increase and expansion of the landfill levy starting 1 July 2021; and supplemented by regulations banning specific items, including microbeads[5] (2017) and plastic shopping bags[6] (2018).

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

In April 2021. the government introduced regulation to expand the scope of the levy from Class 1 landfills to also include classes 2-4.[7]

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

If the landfill levy is expanded and raised as planned this will have 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. The potential impacts are explored further in Appendix A.4.0.

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

[4] https://www.legislation.govt.nz/regulation/public/2021/0068/latest/LMS474556.html#LMS474591
[5].https://www.legislation.govt.nz/regulation/public/2017/0291/latest/DLM7490715.html?search=ts_act%40bill%40regulation%40deemedreg_microbeads_resel_25_a&p=1
[6] https://www.legislation.govt.nz/regulation/public/2018/0270/6.0/whole.html
[7] https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html

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 1.19 tonnes of CO_2-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.

During May 2021 MfE consulted on some possible changes to the ETS including:

- special treatment for waste removed from a closed landfill (not currently falling under the ETS) and re-disposed of at another landfill (that does fall under the ETS)
- decreasing the DEF from 1.19 to 0.91 to reflect the most recent composition estimate for waste going to Class 1 landfills.

The outcomes of the consultation and any potential future changes to the DEF have not been made available at the time of writing this report.

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)[8] currently change hands for between $70 and $85, with prices at $74.40 at the time of writing[9].

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.

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.

[8] NZUs are carbon credits that are officially accepted to offset liabilities under the NZETS

[9] According to carbon prices on www.carbonforestservices.co.nz and https://www.carbonmatch.co.nz/

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 is now seeking feedback on a detailed implementation proposal for a container return scheme in New Zealand. This is included in the 'Transforming Recycling' consultation document[10], and consultation closes on 22 May 2022.

The consultation document proposes 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, it is likely to have two key effects on household kerbside recycling collections:

- 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, would result in income for the 'owner' of the items. Usually, the owner is either the Council and/or its contractor.

Possible implications for Council may be that the frequency of recycling collections could be reduced (both the comingled wheeled bin and the glass crate).

1.5.6.2 Kerbside Standardisation

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 2020[11], and MfE is currently considering 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 waste collection service for households.

MfE is now seeking feedback on a detailed implementation proposal for kerbside standardisation in New Zealand. This is included in the 'Transforming Recycling' consultation document[12], and consultation closes on 22 May 2022.

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

- Phasing in source-separation of food waste only from businesses that produce or sell food;
- Phasing in source-separation of food waste from all businesses; or

[10] https://environment.govt.nz/assets/publications/Transforming-recycling-consultation-document.pdf
[11] https://www.wasteminz.org.nz/wp-content/uploads/2020/08/Final-1.0-Standardising-Kerbside-Collections-in-Aotearoa.pdf
[12] https://environment.govt.nz/assets/publications/Transforming-recycling-consultation-document.pdf

- Prohibiting the disposal of food waste to landfill entirely (which would also preclude disposal of food waste from household sources).

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 current consultation also covers a number of related issues.

One of these is 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 waste 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 is 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.

1.5.6.4 Priority Products

Until July 2020, the ability under the WMA to name a product as a 'priority product' had not been used. Once a product has been named such, an extended producer responsibility approach must be taken and a regulated product stewardship scheme developed. The first six 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

MfE has taken a 'co-design' approach, which involves industry developing and operating product stewardship schemes with central government oversight. To date regulated product stewardship schemes are in development for tyres, large batteries, e-waste, refrigerants, and agrichemicals and farm plastics, although only tyres have currently been accredited. Consultation on regulations to enable the schemes for tyres and large batteries was undertaken in late 2021 and is due to take place in the second half of 2022 for refrigerants and farm plastics.

1.5.6.5 Product Bans

In April 2022, MfE announced that regulations had been passed to enable the implementation of the first tranch 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 will take effect from 1 October 2022, and MfE will release further information such as scope and guidance on alternatives over the next few months.

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. It is due for completion in mid-2022.

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 landfills and transfer stations[13], and has proposed an approach for performance reporting by TAs in the current consultation.

1.5.7 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

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.

1.6.1 Long Term Plan

Council's current LTP was adopted in June 2021; "Our Place, Our Plan". The vision of the LTP is for Ashburton to be "the district of choice for lifestyle and opportunity". This vision is supported by four outcomes, one for each of the 'wellbeings', and guiding principles.

The figure below summarises the strategic direction.

[13] https://www.legislation.govt.nz/regulation/public/2021/0069/latest/whole.html

Figure 2: LTP Vision, Outcomes, and Principles

The LTP mentions the increasing landfill levy as one of the key challenges faced as a result of central government legislative changes, with the likely effect being "higher waste charges to send material to landfill".

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

- 2021's completed upgrade of the Ashburton Resource Recovery Park (ARRP)
- An upgrade of the re-use shop planned for 2023, to replace a previous earthquake-damaged building and subsequent temporary facilities;
- A transfer station for Methven in 2024/25
- An additional building at the ARRP for compacting and bulking waste in 2026, to prevent windblown litter and dust from the current open-air tipping point
- Replacement of the ARRP compactor in 2024/25, with the old compactor then moved to Rakaia.

Solid waste management is considered to contribute particularly to two community outcomes; "A district of great spaces and places" and "A balanced and sustainable environment".

The LTP sets targets for household kerbside recycling collections (increasing quantities by 1% per annum), resident satisfaction (90%), and material diversion (1% year on year).

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.[14]

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.

[14] Both the Canterbury Land & Water Regional Plan and the Canterbury Air Regional Plan address some of the adverse waste effects. Further detail can be found in appendix

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:

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, Ngāi 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 Ashburton district, and its location within the wider Canterbury region.

Figure 3: The Canterbury Region

Ashburton (Kapuka), as the district's principal settlement, accounts for just over 50% of the population or 18,850 people. The only other settlements having a predominantly

residential, rather than semi-rural, character are Methven and Rakaia (approximately 1,780 and 1,440 residents respectively). The remaining 13,330 residents are spread across the rural parts of the district.

The LTP estimates the current population of the district to be 35,400, with a projected increase to 38,600 by 2031.

The district currently has 15,190 households, with an expected increase to 16,250 households by 2031. The number of households is forecast to increase slightly faster than population, which will then result in a reduced average household size of 2.47 by 2031 – from 2.50 currently, and compared to the national average of 2.7 people per household.

Ashburton's population is also expected to change in two other key demographics – average age, and ethnicity. The population is ageing, with the proportion of the population aged over 65 years increasing from 18.5% in 2021 to 20.7% in 2031; and the district's median age is slightly higher than the national average. The district is increasingly becoming ethnically diverse.

1.7.1 Tangata Whenua

The recognised local iwi is Ngai Tahu, with three runanga – Te Runanga o Arowhenua, Te Ngai Tuahuriri Runanga, and Te Taumutu Runanga.

The Aoraki Environmental Consultancy is the recognised representative organisation and is the first point of engagement for natural environment issues.

2 Waste Infrastructure

The facilities available in Ashburton 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.[15] As there are differences, albeit slight, between the two; the legal definitions take precedence[16].

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.

Class 5 – Cleanfill

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

[16] 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.

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 is one Class 1 disposal facility in the Ashburton district; the air-curtain burner (ACB) operated by Greg Donaldson Contracting. While this facility predominantly accepts construction and demolition waste, it also accepts green waste and is therefore defined as a Class 1 disposal facility. The ACB is also currently processing contaminated imported material on instruction of MPI.

As the ACB does not incorporate energy recovery from burning the construction and demolition waste/green waste, it is considered a disposal facility under the WMA in the same category as the Kate Valley Class 1 municipal landfill. The facility has a current discharge to air consent from Canterbury Regional Council (amongst others).

The remaining 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 Ashburton District Council is a shareholder (3%) in Transwaste Canterbury Ltd, a joint venture company with four other Canterbury Councils (47% shareholding), and Canterbury Waste Services Ltd (50% shareholding). Canterbury Waste Services is 100% owned by Waste Management NZ Ltd.

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-owned RRPs are located in Ashburton and Rakaia and are operated by EnviroNZ Ltd under contract to Council. The Rakaia RRP, until 2017 and the introduction of kerbside recycling services, was managed by Rakaia Community Association volunteers.

The Ashburton RRP is a very well laid-out and maintained site, with a visibly high standard of operation. A wide range of materials can be diverted through the RRPs, including:

- Usual household recyclables;
- Whiteware and scrap metal;
- Electronic and electrical equipment;
- Greenwaste;
- Construction and demolition waste;
- Household hazardous waste including chemicals, fuels, oil, and paint;
- Large batteries;
- A number of small difficult-to-recycle items including bottle caps and tabs, lightbulbs, household batteries, and bread tags; and
- Reusable items.

There is a reuse shop at the Ashburton RRP, along with a facility where educational activities and school visits can be hosted.

There are two small sites in Methven where household recyclables, and greenwaste, can be dropped off.

Council provides self-serve rural RDOPs in the district; located at Willowby, Mt Somers, Mayfield, Staveley, Hinds, Fairton, Rangitata Huts, Haketere Huts, Pendarves, South Rakaia Huts, Lauriston, and Carew Peel Forest. These RDOPS accept normal household recyclables – paper, card, glass bottles/jars, aluminium and steel tins and cans.

Ashburton used to also benefit from the presence of the Wastebusters Recycling Centre and Reuse Shop. Wastebusters are no longer active in Ashburton, although the facility and operating name are still being used by another operator. It is unclear what happens to the material collected at the ex-Wastebusters site and another nearby site.

2.1.3 Closed Landfills

Ashburton, Methven, Rakaia, Hinds and Mayfield landfills are closed. Resource consents have been obtained for all of these and all are subject to ongoing monitoring and aftercare in accordance with consent conditions and post-closure management plans.

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.[17] Other disposal sites include Class 2-5 landfills and farm dumps.

[17] 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.

The Ashburton District Plan[18] defines cleanfill:

> *"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.[19]

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 the 1 July 2022, Class 2 disposal facilities will be 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

[18] OPERATIVE DISTRICT PLAN August 2014
[19] Ministry for the Environment (2002) '*A Guide to the Management of Cleanfill's*.

facilities (accepting VENM only) will not be required to pay the levy, but will need to report on quantities from 1 January 2023.

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, six sites have been identified in the Ashburton district. In some parts of New Zealand, Class 2 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 Ashburton 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 Ashburton RRP.

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 three wastewater schemes; for the communities of Ashburton (including Lake Hood), Methven, and Rakaia. 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.

The three systems operate on variations of aeration and irrigation systems; Ashburton and Methven relying on oxidation ponds and Rakaia a clarifier, natural filtration and UV treatment. None of the systems send any outputs to landfill disposal.

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 Ashburton RRP, with a more limited range of diversion options available at the Rakaia RRP.

While the Ashburton Wastebusters Trust no longer exists, the 'Wastebusters' name has been taken over by a local operator that currently accepts various recyclables and other recoverable materials from businesses and visitors to the site. It is unclear exactly what materials are accepted nor where these are then sent for further reprocessing. This is an issue currently under consideration by regulatory enforcement officers from MfE, the regional council, and the district council. Under the terms of the WMA, it may be that this site should technically be considered a transfer station; although it is not consented as such. There is some concern that environmental and public health may be impacted by management practices at these sites, although investigation is ongoing.

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

Table 2: Other Recycling and Reprocessing Facilities

Name/Operator	Key services/waste streams	Location	Quantity accepted from the region (tonnes per annum, TPA)
5R	Window glass	Christchurch	10,000
Daltons	Various organic wastes	Christchurch	50,000
Living Earth	Garden waste (alongside waste from Christchurch City Council's organic waste collection)	Christchurch	10,000
Envirowaste Services Ltd	Various organic wastes (including kerbside collected material from Waimate, Timaru and Mackenzie)	Redruth	Not yet known

Multiple providers	Truck/tractor tyres, some smaller tyres	Christchurch	Not known
OJI Fibre Solutions	Recovered paper/cardboard fibre	Auckland	Around 3,000 to 4,000
WasteCo	Some timber construction and demolition wastes	Christchurch	6,600
Various scrap metal recovery providers	Wide range of scrap metal; shredders located at MetalCorp and SIMS	Christchurch	Unknown
Various e-waste recycling providers	Wide range of electronic and electrical waste	Christchurch, Amberley, Auckland, Wellington	Unknown
Product stewardship	Agricultural plastic, containers, and chemicals	Various locations	1,200 approx

In addition, there are a large number of charity shops, secondhand 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 recent appointment of EnviroNZ to the council waste contracts in Timaru, Waimate and MacKenzie has driven the development of a significant new organic waste processing site.

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, Ashburton RRP offers a comprehensive range of services at a site with plenty of capacity for material flows.

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

In 2017, Council made significant changes to kerbside collection services:

- The bag-based kerbside rubbish collection service was replaced with a weekly 80L wheeled bin collection;
- The recycling crates were supplemented with a 240L wheeled bin for mixed recyclables (excluding glass) to be collected fortnightly;
- Kerbside recycling was extended to Rakaia (ending the need for the local community-run recycling sorting centre); and
- Kerbside services were extended to areas such as the growing residential area in Lake Hood.

Additional recycling and rubbish bins were subsequently offered on a user-pays basis.

These services are provided on behalf of Council by EnviroNZ, and are a rates-funded services with the exception of any additional rubbish and recycling bins requested. These are charged on a user-pays basis to the resident requesting the service. In the 2021/21 financial years, these charges were $151 for an additional 80L bin, $190.65 for 120L, and $307.50 for 240L (with higher charges applying in the central business district). Rubbish bins can also be swapped to a larger size, rather than adding an additional bin, for a one-off administration charge of $86.

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 RRPs in Ashburton and Rakaia, greenwaste and recycling drop-offs in Methven, and twelve rural RDOPs described earlier in section 2.4.

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
- 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 2018, under the WMA amongst other Acts. This means that the bylaw doesn't need to be reviewed until 2028. The bylaw wording is based on the template developed for the Waikato and Bay of Plenty regional councils in 2017, which was subsequently used by a number of councils across New Zealand. This ensures the bylaw is robust in definitions and wording, and is consistent with a number of other councils.

The bylaw requires:

- Waste operators that collect and/or transport waste, or operate a waste management facility, that handles more than 20 tonnes of waste over a twelve month period to be registered with Council and comply with minimum performance standards;
- Non-residential building projects with an estimated value of over $500,000 to consult with Council as to whether a site waste management plan is required;
- Compliance with various minimum standards of handling and managing wastes from any property.

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.

Council's current approach of providing rates-funded collection services 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.

Instead, businesses can organise a rubbish collection service from one of the local private operators, or take rubbish directly to one of the RRPs for disposal. Private collection services are available from a number of private operators, but the market is dominated by EnviroNZ Ltd and Gary McCormick Transport Ltd. Wastebusters also collect commercial waste. Collections can be made from a number of containers ranging from drums and wheeled bins to large skip bins.

A number of private operators also offer green waste collections from both householders and businesses.

4 Situation Review

4.1 Waste to Class 1-5 Disposal

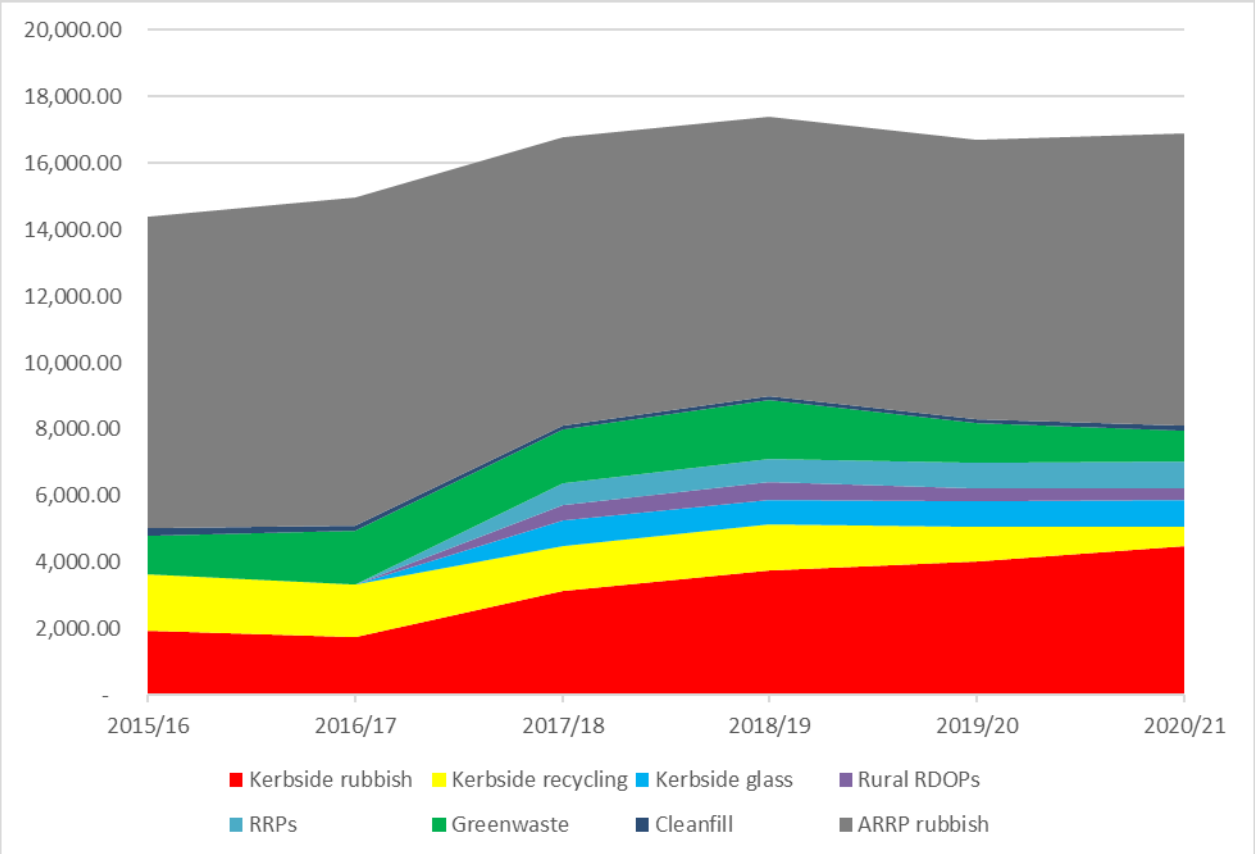
The terminology that is used in this section to distinguish sites where waste is disposed of to land are taken from the relevant MfE regulations, as discussed earlier in section 2.1.

4.1.1 Waste to Class 1 Disposal

The table below summarises waste flows in Ashburton district (2015 – 2021). This does not include waste through the ACB facility, nor any waste that goes directly to Kate Valley landfill from the district (rather than through the ARRP) as these quantities are not known.

There is one Class 1 disposal facility in Ashburton that accepts a range of wastes, although no municipal wastes; the Greg Donaldson Contracting (GDC) air-curtain burner (ACB). This facility has only recently registered as a Class 1 facility and therefore been required to pay the levy or report data to MfE on waste quantities, and isn't able to advise how much waste it has accepted in the past as there is no weighbridge. The facility has also recently been processing waste on behalf of MPI due to contamination present in imported seed.

Figure 4: Ashburton Waste Flows (2015 - 2021) (tonnes)



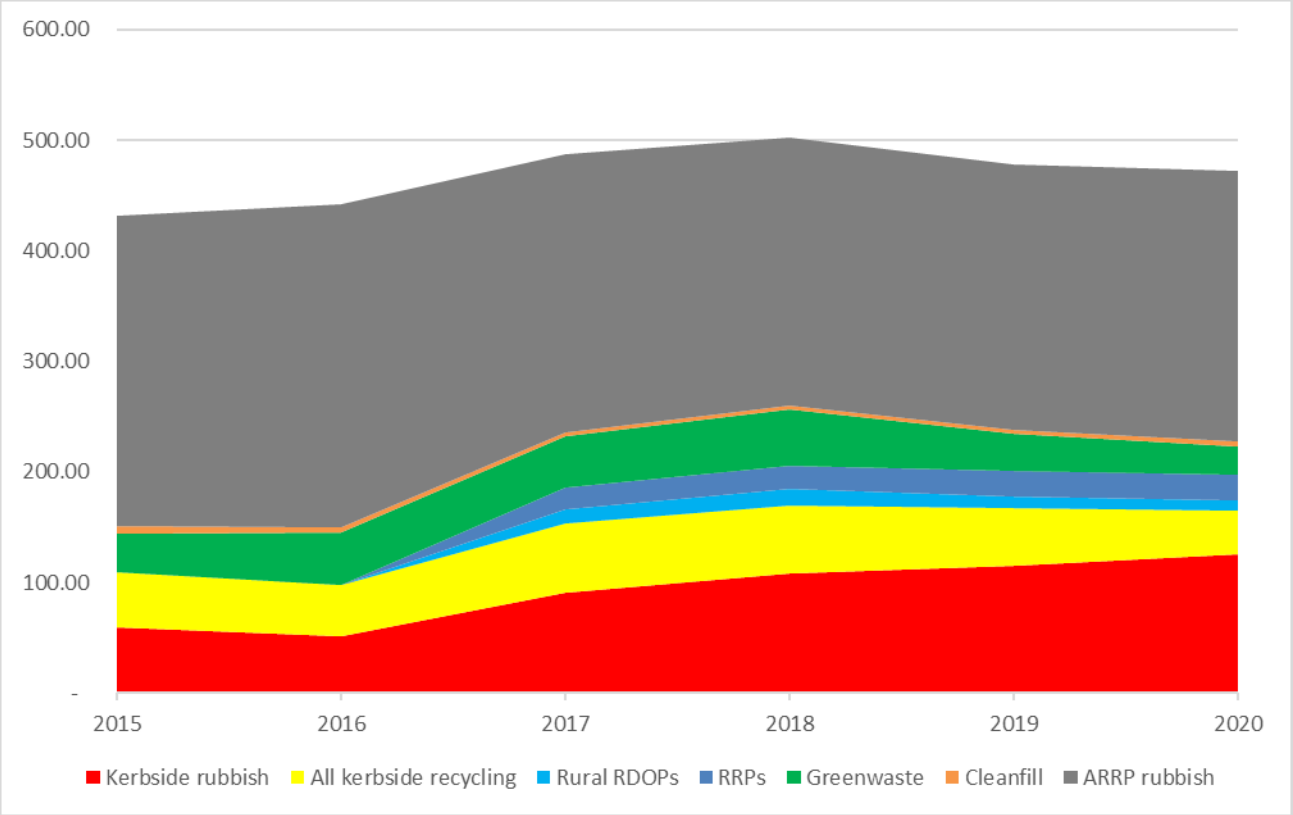
There are several things to note:

1) The quantity of waste collected through Council's kerbside rubbish collection has increased significantly since the introduction of the wheeled bin collection service;
2) The quantity of recycling collected at the kerbside has increased since the introduction of the wheeled bin and glass crate service;

3) Kerbside recycling collections and other diversion activities have been severely impacted by COVID-19 pandemic management during the 2020 and 2021 calendar years;
4) Quantities of all waste have been increasing.

This data can also be analysed on a per capita basis, which allows for increased quantities as a result of an increasing population.

Figure 5: Ashburton Waste Flows (2015 - 2021) (kg per capita)



Presenting the data in this way shows that on a per capita basis, total waste decreased slightly in the 2020/21 financial year. This may be due to changes in consumption caused by COVID-19 pandemic management.

4.1.2 Waste to Class 2-5 Disposal

There are no known Class 2 disposal facilities or industrial monofills in Ashburton district.

There are at least six Class 3/4 landfills, and at least ten Class 5 facilities although many of them don't accept waste from others – e.g. multiple Fulton Hogan sites that are predominantly used to dispose of cleanfill from earthworks and roading projects.

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:[20]

> *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 landfills, 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 November 2021, Ashburton's waste was surveyed on behalf of Eunomia 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 2022. The full report is attached in Appendix .

4.2.1 Composition to Class 1 Disposal

The composition of the overall waste stream being disposed of at Kate Valley from the ARRP is assumed to essentially represent the composition of all waste from Ashburton district.

Table 3: Composition of All Waste to Class 1 Landfill

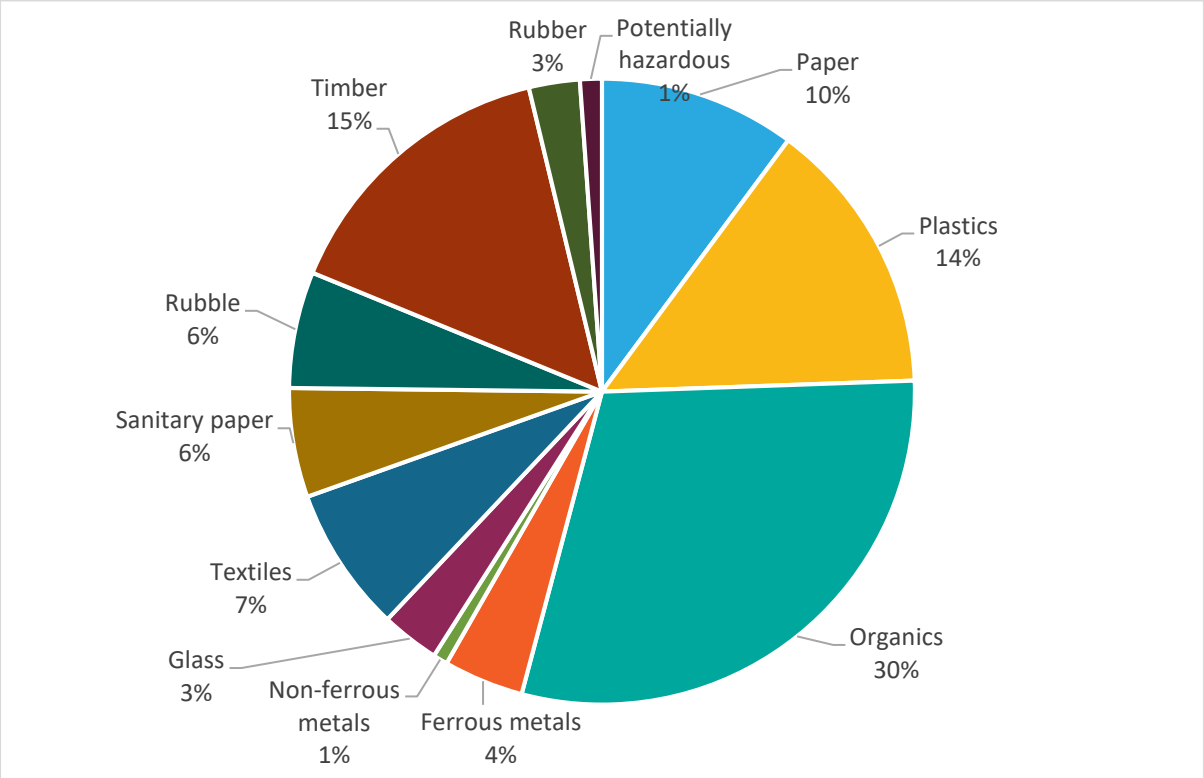
ARRP – all waste to landfill	10-13 November 2021		Extrapolated from data for 20 September – 14 November 2021 Tonnes per annum (indicative only, tonnes)
	% of weight (%)	Tonnes/week (tonnes)	
Paper	10.1	27	1,396
Plastics	14.3	38	1,978
Organics	29.9	79	4,123
Ferrous metals	4.0	11	558
Non-ferrous metals	0.9	2	124
Glass	2.9	8	402

[20] Ministry for the Environment (2011) *Consented Non-levied Cleanfills and Landfills in New Zealand: Project Report*. Wellington: Ministry for the Environment

Textiles	7.4	20	1,021
Sanitary paper	5.7	15	787
Rubble	6.0	16	821
Timber	15.1	40	2,081
Rubber	2.6	7	355
Potentially hazardous	1.0	3	140
TOTAL	**100.0**	**264**	**13,786**

The annual composition is an estimate only, as it is extrapolated from weighbridge records for the period 20 September – 14 November 2021.

Figure 6: Composition of All Waste to Class 1 Landfill



Waste passing through the ARRP arrives there through two main pathways; Council kerbside collection ('kerbside waste'), or delivered direct ('general waste'). General waste can be further broken down by the 'activity source' that is assumed to have given rise to the waste. These activity sources are a standard industry categorisation.

Table 4: General Waste Composition - by Activity Source

	Construction & demolition (%)	Industrial/ commercial/ institutional (%)	Landscaping and earthworks (%)	Residential (%)
Paper	1.1	0.1	0.0	0.1
Plastics	1.5	18.9	10.0	14.5
Organics	1.3	18.5	90.0	22.3
Ferrous metals	3.3	3.9	0.0	7.8
Non-ferrous metals	0.0	1.1	0.0	0.7
Glass	3.4	3.5	0.0	2.8
Textiles	0.7	10.8	0.0	7.8
Sanitary paper	0.0	4.2	0.0	4.4
Rubble	30.5	5.8	0.0	2.6
Timber	57.6	13.3	0.0	27.7
Rubber	0.6	4.4	0.0	1.4
Potentially hazardous	0.0	1.6	0.0	0.7
TOTAL	100.0	100.0	100.0	100.0
Tonnes per week	**22.0 T/week**	**105.1 T/week**	**0.1 T/week**	**34.8 T/week**

4.3 Diversion Potential

Various materials are diverted from landfill in Ashburton through recycling, reuse, and recovery. Services available include Council's kerbside recycling collection, private recycling collections, recycling drop-off points, the ARRP, and the Raikaia RRP.

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

Error! Reference source not found. shows the proportion of the general waste currently d isposed 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 5: Diversion Potential of Ashburton's General Waste Stream – 2021

Ashburton general waste diversion potential 10-13 November 2021 - excludes kerbside waste	Percentage of total (%)	Tonnes per week (tonnes)
General waste recyclable and recoverable materials		
Paper - Recyclable	4.2	7
Paper – cardboard	5.5	9
Plastic – recyclable	0.9	1
Ferrous metals	4.7	8
Non-ferrous metals	0.9	1
Glass – recyclable	1.2	2
Textiles – clothing	2.7	4
Rubble – Cleanfill	0.8	1
Timber – Reusable	3.4	6
Subtotal	**24.2**	39
Compostable materials		
Organics – food scraps	10.8	17
Organics - greenwaste	3.4	5
New plasterboard	1.4	2
Timber – untreated/unpainted	8.2	13
Subtotal	23.8	38
TOTAL – Potentially divertable	47.9	78

Recyclable and recoverable materials make up 24.2% of general waste, or about 39 tonnes per week. Recyclable cardboard was the largest recyclable component of general waste.

Compostable materials made up 23.8% of the general waste. Food scraps was the largest compostable component, at 17% of general waste and mostly arriving at the ARRP in ICI loads. Compostable greenwaste made up 3.4% of the general waste stream.

Overall, approximately 47.9% of the general waste, or 78 tonnes per week, could have been diverted from landfill disposal via various methods[21].

The composition of kerbside rubbish was not surveyed at this time; however, an estimated composition is provided in the full Waste Not SWAP report.

Table 6: Divertable Materials by Activity Source - All Waste to Class 1 Landfill below shows the diversion potential of all waste to landfill from ARRP by activity source. This table has been colour-coded to show the highest values for each individual material – no shading indicates low, dark red indicating a high value. This enables interventions to divert any particular waste material to be targeted; e.g. to divert recyclable cardboard efforts should be focused at industrial, commercial, and institutional (ICI) sources. To divert food waste from landfill, efforts should be focused at kerbside waste and, to a lesser extent, ICI.

Table 6: Divertable Materials by Activity Source - All Waste to Class 1 Landfill

Tonnes per week	C&D	ICI	Landscaping	Residential	Kerbside rubbish
Paper - Recyclable	0.0	5.2	0.0	1.5	6.8
Paper - Cardboard	0.2	8.1	0.0	0.7	0.8
Plastic - Recyclable	0.0	1.1	0.0	0.3	2.5
Kitchen waste	0.0	12.3	0.0	5.1	42.7
Compostable greenwaste	.3	3.1	0.1	2.0	4.2
Ferrous metals	0.7	4.1	0.0	2.7	3.0
Non-ferrous metals	0.0	1.2	0.0	0.2	0.9
Glass - Recyclable	0.1	1.4	0.0	0.5	1.5
Textiles - Clothing	0.0	3.5	0.0	0.8	2.9
Rubble - Cleanfill	0.0	0.9	0.0	0.3	0.0
New plasterboard	1.7	0.3	0.0	0.2	0.0

[21] Note that this is a theoretical figure, as no recovery or diversion system is capable of diverting 100% of any material from landfill disposal.

Timber - Reusable	1.9	2.4	0.0	1.3	0.0
Timber - Untreated/unpainted	7.0	4.9	0.0	1.5	0.0
TOTAL	**12.0**	**48.3**	**0.1**	**17.2**	**65.3**

4.4 Diverted Materials

Diverted materials in Ashburton include green waste, other organic material, and recyclables such as paper, card, glass, metals and plastic.

Recyclables generally leave the district for further processing, with much of the fibre (paper/card) being transported to OJI Fibre Solutions. Glass and metals are generally transported to Auckland, with some metals and most plastic being sold to varying markets depending on price.

Quantities of commercially-diverted materials are shown by material type in Table 2.

5 Performance Measurement

5.1 Current Performance Measurement

This section provides comparisons of several waste metrics between Ashburton 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 2-4 landfills
- seasonal fluctuations in population (including tourism).

By combining Statistics NZ population estimates and the Class 1 landfill waste data in section **Error! Reference source not found.** , the per capita per annum waste to landfill in 2 021 from Ashburton can be calculated as in Table 7 below. The estimate includes special wastes but excludes non-levied cleanfill materials.

Table 7: Waste Disposal per Capita

Calculation of per capita waste to Class 1 landfills	
Population (2021)	35,900
Total waste to Class 1 landfill	13,786 tonnes per annum
Tonnes/capita/annum of waste to Class 1 landfills 2020	0.384 tonnes per capita per annum (384 kg per capita per annum)

This figure varies significantly throughout New Zealand. The table below compares the 2021 figure for Ashburton with other local authorities, and with the result for Ashburton from Waste Not's surveys in 2012 and 2015.

Table 8: Comparative Per Capita Disposal Rates[22]

Overall waste to Class 1 landfills including special wastes	Kg per capita per annum
Ashburton District 2012	***283***
Gisborne District 2017	296
Waimakariri District 2017	325
Ashburton District 2015	***366***
Ashburton District 2021	***384***
Invercargill City 2018	528
Bay of Plenty Region 2017	529
Palmerston North 2017	545
Waikato Region 2017	552
Dunedin City 2018	554
Wellington region 2016	608
Napier/Hastings 2019	630
New Zealand (to Sept. 2020)	663
Taupō District 2017	673
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.

The calculated per capita rate has increased 36% since 2012. However, the calculated figure for 2012 was extraordinarily low and preceded the introduction of Council's wheeled bin-based kerbside rubbish collection.

It is very likely that, rather than representing an actual increase in waste production per capita, this result actually reflects that much more of the waste stream is now being captured through formal waste management systems in the district and is being managed safely and responsibly. Previously, quantities of waste may have been going to alternative disposal methods such as burning, farm dumps, or disposal at unsuitable facilities such as cleanfills (an alternative disposal site that was then operating in the district is now closed).

[22] Estimate provided by Waste Not Consulting based on a number of datasets held

This assumption is supported by a comparison of kerbside-collected rubbish, specifically[23].

Table 9: Kerbside-Collected Rubbish per capita

District and year of survey	Kg/capita/ annum	Kerbside rubbish services used
Ashburton District 2015	***93***	User-pays rubbish bags + private wheelie bins
Ashburton District 2012	***97***	User-pays rubbish bags + private wheelie bins
Christchurch City 2011	110	Rates-funded fortnightly 140-litre wheelie bins (with weekly organic)
Gisborne District 2017	122	Rates-funded rubbish bag stickers
Ashburton District 2021	***144***	Rates-funded weekly 80-litre wheelie bins + private wheelie bins
Whangarei District 2017	153	User-pays rubbish bags + private wheelie bins
Waikato Region 2017	156	Various
Auckland Council 2016	156	User-pays rubbish bags + rates-funded wheelie bin + private wheelie bins
Dunedin City 2018	187	User-pays rubbish bags + private wheelie bins
Tauranga/WBOP 2019	192	User-pays rubbish bags + private wheelie bins
Hamilton City 2017	197	Rates-funded bags (2 per h/h max)
Bay of Plenty Region 2017	201	Various
Palmerston North 2017	201	User-pays rubbish bags + private wheelie bins
Hastings/Napier 2019	221	Rates-funded bags (2 bags h/h max) + User-pays rubbish bags + private MGBs

Although Ashburton's kerbside collected-rubbish, per capita, in 2012 and 2015 was significantly lower than any other district measured; there was no apparent reason for this. There was little difference in the type of kerbside recycling service provided, and data was compared from both pre-dominantly urban and rural districts, and those that had user-pays rubbish collection services.

The proportion of Ashburton residents that are eligible for the kerbside rubbish collection service has increased since this time from 65% to 75%.

[23] Also from Waste Not's full SWAP audit report

5.1.2 Changes Over Time

Ashburton district is fortunate to have a relatively long history of SWAP data for the district.

Key changes noted since the 2012 and 2015 audits include:

- An overall increase in waste to landfill of 46% (170 tonnes per week to 264 tonnes per week)
- A significant increase in construction and demolition waste between 2012 and 2015, with a subsequent reduction in 2021
- Continual increases in ICI waste
- A significant increase in kerbside-collected waste of 75% between 2012 and 2021, as discussed above.

5.2 Greenhouse Gas Emissions

The surveyed composition of waste sent to Class 1 disposal from the district enables an estimate of the greenhouse gas (GHG) emissions resulting from this management practice.

The predominant source of GHG emissions from waste disposal is the decomposition of organic wastes (such as food scraps and green waste) in the anaerobic environment of a landfill, where this material breaks down to create leachate and methane (a very potent GHG).

Kate Valley landfill, like most large modern Class 1 landfills, captures the gas emitted from the sealed landfill cells and puts this to beneficial use; in this case to create electrical power. However, not all gas emitted by a landfill will be captured in this way, and so some methane escapes to contribute to climate change.

Waste Not have estimated the carbon impact of sending waste to Kate Valley landfill, shown below in Table 10, represented as tonnes of CO_2 equivalent (tCO_2e) per tonne of waste. Additional detail on these calculations is provided in Waste Not's full report.

Table 10: Carbon Emissions from Waste Disposed of to Kate Valley Landfill[24]

Carbon emissions from Ashburton RTS waste to Kate Valley Landfill	All waste	Waste after removal of all divertable materials	Change
Tonnes per annum to Kate Valley Landfill	13,786	6,232	-54.8%
Calculated emissions factor (tCO_2e per tonne of waste	1.379	1.125	-18.4%

[24] From Waste Not's full SWAP audit report

Emissions potential, based on calculated emissions factor, in tCO2-e per tonne of waste	19,012	7,009	-63.1%
Actual emissions, with landfill gas capture, in tCO2-e	1,901	701	-63.1%

This significant reduction of around 63% of emissions demonstrates the effectiveness of diverting organic waste from landfills; which is a large part of the reasoning behind the Climate Commission and MfE's focus on this material type.

6 Future Demand and Gap Analysis

6.1 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.

6.1.1 Population

Population projections are shown in the following table:

Table 11: Population Projections to 2048[25]

Projection	2021	2023	2028	2033	2038	2043	2048	Change 2021 – 2048: number	Change 2018 – 2048: average annual percent
	35,900	36,455	37,882	39,121	40,515	42,044	43,449	7,549	0.66

Population growth through to 2048 is expected to be primarily around Ashburton, Netherby, and Tinwald.

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, and the district's trend towards smaller households, the average household size is likely to reduce. This may be balanced to an extent by the norms of some cultures of having multiple generations in one household, but this effect is more difficult to predict.

[25] Ashburton District Council's Community Profile 2020

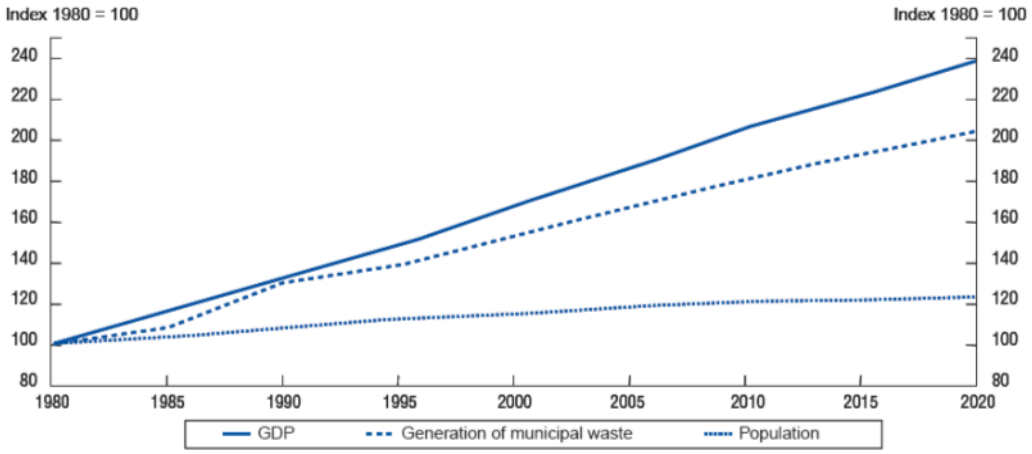
6.1.2 Economic Activity

The Ashburton district has been reasonably well insulated against the economic impacts of the COVID-19 pandemic management, partly due to a strong rural sector. Economic growth is expected to quickly return to 2019 levels, and grow strongly from 2022 onwards.

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 7 below shows the growth in municipal waste in the OECD plotted against GDP and population.

Figure 7: Municipal Waste Generation, GDP and Population in OECD 1980 - 2020



Source: OECD 2001.

Research from the UK[26] and USA[27] 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.

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.

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

[27] EPA, 1999. National Source Reduction Characterisation Report For Municipal Solid Waste in the United States

As Ashburton 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.

6.1.3 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.[28] 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 computer[29].

6.1.4 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:

- Revised New Zealand Waste Strategy. The consultation draft had a strong focus on a circular economy approach, which is a change in strategic direction.
- 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 $30 per tonne) 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.
- Collection systems. The current consultation on standardising kerbside collections may have implications for Ashburton, particularly with respect to food waste collections.
- 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.

[28] http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10833117
[29] Data from www.stats.govt.nz 'Household Use of Information and Communication Technology' accessed September 2018

- Local policy drivers, including actions and targets in the WMMP, bylaws, and licensing.
- 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.
- Performance standards and targets. The current consultation from MfE proposes that there are minimum performance standards for recycling diversion.

6.1.5 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 Ashburton, this new demand is likely to be largely related to efforts to divert organic waste from landfill, including possible business food waste diversion and recovery of construction wastes.

There is an unknown factor in the forecast of future demand, which is the operation of the GDC ACB Class 1 disposal facility. The registration of this facility as a Class 1 is very recent, and it is not known to any great certainty what the future of this facility will be. There are three possible outcomes:

1) The facility ceases to accept green waste, which may mean it would then be downgraded to a Class 2 facility (with accompanying decrease in levy obligations) – this would place an additional pressure on Council's ARRP and other private green waste operators;
2) The facility may cease to operate at all, which would result in a significant increased quantity of construction and demolition waste passing through the ARRP;
3) The facility may convert to an energy recovery facility, which would mean it would no longer be considered a disposal facility and would not be need to pay a levy. This would reduce the cost of disposing of waste through the facility, and may then pull more C&D waste and green waste from other sources.

Given the cost involved in option 3), it is considered less likely than the others.

6.2 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.

- Organic waste going to landfill, which is predominately food waste from household sources
- Improved management of waste from construction and demolition, and ICI sources

- Current management of construction and demolition waste is through incineration without energy recovery
- Rural waste streams are poorly understood and may benefit from more proactive management
- A large amount of cardboard going to landfill reaches there through commercial rubbish collections
- Charges at the RRPs may need reviewing to further encourage the use of the available diversion options
- Iwi liaison could be extended.

6.2.1 Organic Waste Diversion

While Council has made significant improvements in household waste diversion through the introduction of its council-contracted services, analysis suggests that residents are still not using these services to divert wastes effectively. There is a significant quantity of food waste in household kerbside rubbish collections, supporting the idea of a Council-contracted household food waste collection.

There is currently no food waste collection services in the district apart from some ad hoc private arrangements. Private sector services are focused on green waste.

There are significant policy and financial drivers that support the diversion of organic waste from landfill and, at least in the case of householders, this is likely to fall to Council to implement.

Ashburton, with access to a nearby food waste processing facility, is likely to be one of the councils targeted for the introduction of kerbside household food waste collections by MfE; assuming this requirement is confirmed following the current consultation process.

6.2.2 ICI Waste Diversion

Businesses, and in particular those from the ICI sectors, are putting a lot of potentially recyclable material in rubbish collections; in particular, cardboard. Registration and data provision requirements in the Council waste bylaw not yet fully implemented, and so little data available on private operator activities and non-Council waste streams in general. There are only a few waste diversion services available for businesses, particularly for more difficult wastes such as organics and construction/demolition wastes.

One operator that is currently accepting recyclables from businesses appears to be storing this material for significant lengths of time, suggesting that it may now legally be considered disposal.

6.2.3 Iwi Liaison

There was little proactive iwi liaison carried out during the development of the last WMMP. With the national focus on a circular economy approach to waste management (which closely aligns to the maori world view) and increasing awareness of the need for the wider waste management industry to engage more proactively with iwi, and to be good treaty partners.

This waste assessment covers off the maori world view in a generic sense only.

6.2.3.1 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 systems[30]. 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:[31]

> *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 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 DHBs and other medical service providers to ensure that appropriate services are being offered and put in place.

6.2.3.2 Reuse

There is some provision for the recovery of reusable items in the district. However, this relies on the ability to deliver the items to a RRP. In other areas, such as Auckland, this material is recovered through a charged collection service. There may be potential to work in collaboration with other local councils to provide an on-property user-pays collection

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[30] 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

[31] https://nzpharmacy.wordpress.com/2009/06/09/disposal-of-unwanted-medicines/

service, to increase the amount of reusable material available for sale back to the community and to reduce the amount of construction and demolition waste sent to landfill.

7 Review of the 2012 Waste Management and Minimisation Plan

As required by the WMA, Council has carried out a review of their last WMMP, which was adopted in 2016.

This WMMP had a vision of working towards zero waste, supported by five goals, which were further supported by nine objectives.

Goal	Objectives
G1: Engage and involve our community	O1: Work in partnership with the waste sector, neighbouring councils, and local community to raise awareness of waste issues O2: Achieve responsible and informed decisions on solid waste management by the community
G2: Reduce the amount of waste sent to landfill or other disposal	O3: Reflect the WMA's waste hierarchy by emphasising and prioritising reduction, reuse, recycling, and recovery in our Action Plan O4: Improve information collection and analysis to ensure we know what waste exists in the district and where it is going
G3: Lower the total cost of waste management to our community, while increasing economic benefit through new initiatives and infrastructure	O5: Use existing resources more efficiently O6: Work with the waste sector to increase the range of reuse, recycling, and recovery options available in the district, maximising the economic benefit to the community O7: Consider the total cost to the local community when choosing waste management options
G4: Reduce the risk of environmental damage	O8: Consider the environmental impact of all options and seek to choose options with the least overall environmental impact
G5: To protect public health	To consider the public health impacts of all waste management options and seek to choose options which protect human health

The target in the 2016 WMMP was based waste to landfill, expressed as the amount of waste sent to landfill per capita. The baseline was set according to the best data available relating to the 2015/16 year, which suggested a current waste to landfill of 343 kg of waste per capita per year. The target was to reduce this by 23% by 2026. Assuming a consistent annual decrease, this translates to a 13.6% reduction by 2022.

This target was formed by analysing the action plan and estimating the potential contribution to waste diversion. Other targets included:

- TA: 40% reduction in the weight of residual waste per rateable property from kerbside collections being disposed of to landfill

- TB: 100% increase in the weight of recyclable, recoverable or reusable material diverted from the waste stream
- TC: 1.5% per annum increase in the percentage of kerbside collected material being recycled
- TD: 205 kg per annum per household served of kerbside collected recyclables
- TE: 150 kg of material composted per annum per rateable property
- TF: 50% of material to the Ashburton Resource Recovery Park (ARRP) will be diverted from landfill
- TG: Increase the diversion from the disposal of construction and development (C&D) waste to 150 kg per rateable property per annum
- TH: No significant non-compliances with resource consent conditions related to closed landfills and resource recovery park operations.

Key issues included:

- Council, the community and private sector need to work together to achieve Council's goals and objectives. To make this happen, Council needs to find ways to engage the community about good waste practices.
- Council's forthcoming procurement of solid waste services: Resources Recovery Park operation and kerbside collection services are going to be put out for in the first half of the 2016/2017 financial year. Through this tender process, the future of solid waste services will be scoped and determined, which will then importantly define what Council does for the next 10 years. Changes to the collection services are anticipated at the start of the next contract 1 July 2017.
- A recent increase in the volume of commercial waste streams - combined with the amount of divertible material from businesses going to landfill – has resulted in a relatively low recycling rate compared with other similar-sized territorial authorities.
- Data collection in relation to certain waste streams e.g. cleanfill needs to be improved for Council to better focus its efforts in this area and enhance its waste minimisation planning processes.
- The need exists to better understand rural business waste streams to improve access to services, and support rural community and rural business initiatives. Recent studies have shown that more than 95% of rural properties surveyed still use farm pits to burn and bury their farm waste. These disposal practices are harmful to the environment and may also cause damage to peoples' health. Further regional and national studies concerning these issues are currently underway and Council will leverage the findings to help address issues in Ashburton District.
- Council has identified the need to have more effective regulatory tools in place to better manage waste-related issues. The current Solid Waste Bylaw is due for review as it is not fully aligned with the regional and national regulatory framework.
- Council needs to establish an improved fee structure and funding model for its waste-related services and one that is focused on improving waste minimisation. It needs to establish the right mix of user pays versus rates- based funding to maximise the incentive to divert waste from landfill.
- Council also needs to continue to manage cleanfill sites and closed landfills effectively within consented parameters determined by Environment Canterbury.

These issues were all addressed in the 2016 WMMP action plan.

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

2016 Plan	Commentary
Vision	The previous vision was focused on a zero waste philosophy. This is considered to have been quite appropriate at the time, as 'zero waste' was still the dominant waste minimisation philosophy at the time. However, recent years have seen a focus on the concept of a 'circular economy' for waste which incorporates most of the zero waste principles, but goes a step further to raising the importance of 'circularity' in waste systems. This is closely linked to a growing awareness of the environmental impacts (especially GHG emissions) of waste management practices. For these reasons, it is proposed that the vision be reviewed for the next WMMP.
Goals	The goals are all still very relevant and reflect circular economy principles. It is suggested that the goals are carried over to the next WMMP. The last two are heavily reflective of the current New Zealand Waste Strategy, and if a new Strategy is adopted before the next WMMP is completed, these could be revised.
Objectives	Similarly, the objectives could also be carried over to the next WMMP.
Target	The target from the 2016 plan was based on waste per capita to landfill. Discussion earlier in this waste assessment demonstrates how this can be a potentially tricky metric to use, albeit a very simple one. It is proposed that more targets are included in the next WMMP. High level target (13.6% reduction by 2022): Not achieved (343kg to 384kg). TA: Not achieved (participation in the kerbside rubbish collection has increased) TB: Not achieved (28% increase compared to 100%) TC: Not achieved TD: TBC TE: Not measured TF: Not achieved TG: Not achieved TH: Achieved Many targets have been significantly impacted by the COVID-19 pandemic management, which has resulted (for example) in kerbside recycling collections being paused for weeks at a time. As the targets were largely predicated on the completion of the specific action plan, this is discussed further in the next section.

7.1 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 12: Review of the Previous WMMP Action Plan (actions with contribution towards targets)

Action	Planned timeframe and progress	Contribution to target and commentary
Implement a wheeled bin collection and separate glass collection	July 2017 Completed	Forecast: increased 50kg per household per annum (639 tonnes over ten years) Per household - nearly achieved. Collections in 2020 and 2021 affected by COVID-19 pandemic management. 639 tonne increase annually – achieved for 2018 and 2019. Collections in 2020 and 2021 affected by COVID-19 pandemic management.
Work with the community, waste sector, and other councils to encourage development of facilities for diversion of priority waste streams. Investigate opportunities to enhance economic development through waste minimisation.	2018 Moderate progress made	This action was forecast to contribute towards the 1,405 tonnes of industrial/ commercial/ institutional waste diversion from landfill by 2026. Management of these waste streams has not significantly improved.
Investigate the potential for a commercial recycling collection in parts of the district (for businesses, farms, etc). This may mean services are offered by community/private sector, or Council may provide services directly, or a combination of the two.	2016	This action was forecast to contribute towards the 1,405 tonnes of industrial/ commercial/ institutional waste diversion from landfill by 2026. Management of these waste streams has not significantly improved.
Work with the industry to identify and support options for increasing segregation of C&D waste on site, providing more services for the collection of separated materials, and expanding use of off-site sorting facilities. To investigate: the merits of C&D sorting at the ARRP, and diverting	2017	This action was forecast to contribute towards the 2,309 tonnes of construction and demolition waste diversion from landfill by 2026. Management of these waste streams has not significantly improved.

timber for pyrolysis treatment or waste to energy projects.		
Investigate options for providing addition 'satellite site' RDOPs to serve rural areas and busy holiday spots. Negotiate with contractors to provide services.	2016 – 2020	Improvements and additions to the RDOPs was forecast to achieve an additional 303 tonnes in diversion by 2026. Some progress has been made in this area, with additional RDOPs provided; however, tonnages have not increased yet.
Provide space at the RRPs for reuse and upcycling activity by the local community	2018 Completed	This action has been achieved

Not only has Council completed the majority of the planned actions, in some cases the outcomes 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, while retaining much of the supporting goals and objectives.

8 Statement of Options

This section sets out the range of options available to the Council to address the key issues that have been identified in this Waste Assessment. Options presented in this section would need to be fully researched, and the cost implications understood before being implemented.

8.1 Key Issues to Be Addressed by WMMP

The key issues identified in this Waste Assessment are listed below. Addressing these issues will ensure that Council is meeting their statutory obligations, and improving waste management and minimisation in Ashburton.

- A significant proportion of waste going to landfill is organic waste, especially food waste from households – especially given the indicated government mandate for household food waste collections in urban areas
- Improving the management of wastes such as construction and demolition, and ICI, requires that council, community and private sector need to work together
- A quantity of construction and demolition waste is managed locally through incineration without energy recovery
- Rural waste streams, such as waste from rural households and waste from farms, is poorly understood and may benefit from more proactive measuring and management by Council
- Businesses could divert more recyclables, particularly cardboard
- Charges at the RRPs may need to be reviewed to encourage customers to sort their waste and divert more using the options available

The potential actions to address these key issues are set out in the following tables, categorised into regulation, measuring/monitoring, education/engagement, collections/services, infrastructure, and leadership/management.

8.2 Regulation

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
R1	Implement the solid waste bylaw provisions	Data collection and maintenance of performance standards	Encourages better management of waste streams and gives access to better data	Regulator
R2	Lobbying for a regional or national data collection system	Ensures consistency in data quality and availability on a larger scale	Gives access to better data and enables wider benchmarking and performance assessment	Lobbying
R3	Introduce a cleanfill bylaw	Data collection and assurance that correct materials are going to cleanfill	Gives access to better data and ensures that waste is not disposed of to cleanfill that would be better managed through other pathways	Regulator
R4	Amend the existing bylaw conditions to exclude the use of 240L wheeled bins	Higher proportions of recyclables and garden waste in 240L wheeled bins	Encourages diversion of waste through existing methods and services (home composting, Council	Regulator

	for household refuse collections	provided for refuse collections	recycling, private sector garden waste)	

8.3 Measuring and Monitoring

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
M1	Status quo – occasional SWAP audits, recycling audits, and monitoring through service delivery		No impact – status quo	Maintain existing arrangements
M2	Increase monitoring to provide more information on commercial and industrial waste streams, and changes in Council data over time	Better quality data on wider range of waste types	Addresses current gaps in understanding on certain waste streams. Better data could enable Council to improve and target services more appropriately	Improve data collection and analysis in-house, and make use of regulatory tools to collect data on non-council waste streams

8.4 Education and Engagement

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
EE1	Status quo – engagement with the community and industry via the waste minimisation advisor, continue schools education, website improvements etc.	No change	No impact – status quo	Maintain existing arrangements
EE2	Initiate wider engagement with industry, community, and other agencies through a community waste action group	Opportunity for community and industry to improve their engagement, understanding, and awareness of waste issues, and build closer relationships with other agencies such as DHB	Improved understanding of needs in the city and service gaps, and who is best to address them. Increased responsibility for waste management within the community.	Initiate group and facilitate, possibly with low-level funding for project work.

8.5 Collection & Services

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
CS1	Status quo	No issues	No impact – status quo	Continue to provide kerbside recycling and user-pays bag collection for rubbish.
CS2	Introduce a city-wide weekly food waste collection	Could divert up to 70% of food waste from the residual waste stream or around 3,000 tonnes per annum. The current diversion rate for food waste is 5.4%.	Would reduce waste quantities to landfill and environmental impact of waste disposal. A food waste collection might cost around $40 per household per annum (provision to non-residential properties on a user-pays basis)	Service provision
CS3	Introduce a city-wide garden waste collection (weekly or fortnightly)	Could divert up to 60% of garden waste from the residual waste stream or around 2,500 tonnes per annum. The current diversion rate	Would reduce waste quantities to landfill and environmental impact of waste disposal. A green waste collection might cost around	Service provision

		for garden waste is at least 54.5% (excludes home composting etc).	$80 per household per annum.	
CS4	Partly fund bagged refuse collection through general rates or targeted rates	Increased market share; collection cost component rates funded and disposal (variable) component user-pays funded	Encourages increased use of existing diversion options such as kerbside recycling, home composting and garden waste collections due to reduced use of wheeled bins for kerbside refuse collections	Amending funding policy
CS5	Change the Council user-pays refuse collection to a wheeled bin collection	Increases Council market share through provision of a more competitive refuse collection service	Encourages increased use of existing diversion options such as kerbside recycling, home composting and garden waste collections due to reduced use of large wheeled bins for refuse collections; more data and understanding of	Service provision change

			kerbside waste streams	
CS6	Provide additional services to the commercial sector	Provides additional options to commercial customers	Increased access through diversion services such as recycling and organics collection	Identify potential new service areas, and extend/add service provision. This could involve new waste streams, containers, or service frequencies
CS7	Withdraw from collection services altogether and take a regulatory role only	Customers have options through the private sector market	This option is unlikely to increase diversion	Implement the provisions of the solid waste management bylaw fully and regulate the industry using these tools
CS8	Extend the current hazardous waste collection trial to a regular event	Lack of ongoing services for hazardous waste	Will provide an ongoing option for the management of household hazardous waste	Service provider in partnership with 3R

8.6 Infrastructure

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
IN1	Status quo	No change	No impact – status quo	Maintain operation of existing RDOPs and Awapuni RRC
IN2	Relocate and improve Ashhurst	Extend provision for drop-off and recovery	Accommodate some future demand and allow additional diversion	Fund development and maintain operations
IN3	Incorporate C&D recovery at Awapuni RRC	Provide diversion methodology for additional waste stream	Enable additional diversion of a growing waste stream	Fund development and maintain operations
IN4	Incorporate ICI recovery at Awapuni RRC	Provide diversion methodology for additional waste stream	Enable additional diversion of a growing waste stream	Fund development and maintain operations

8.7 Leadership and Management

Ref	Option	Issues Addressed	Impact on Current/Future Demand	Councils' Role
LM1	Advocate to central government for extended producer responsibility	Addresses problem waste streams at the source	Using the provisions in the WMA will help to ensure that the true cost of 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.	Advocate to central government for stronger regulation and extended producer responsibility. Work with other councils and agencies to support similar lobbying efforts.
LM2	Work closely with mana whenua, community groups, and the private sector to progress opportunities for increased waste diversion	Successful implementation will enable increased waste diversion	Encourage the community be more involved in waste management, and potentially increase waste diversion.	Coordinate and support initiatives.

8.8 Summary Table of Potential Scenarios

The above options can form an almost infinite number of combinations. To simplify consideration of the options, high level scenarios with logical combinations of the above options are laid out in the table below. The scenarios are for illustration and can be amended.

Scenario Name	Collections	Infrastructure	Regulation	Monitoring & Measuring	Education	Leadership & Management
Status Quo	Weekly kerbside user-pays rubbish bag collection; weekly kerbside recycling collection with glass one week, comingled recycling the other (targeted rate) Food waste collection to businesses.	Awapuni RRC, RDOPs at Ferguson St, Bunnythorpe, Ashhurst	Solid Waste Bylaw	Occasional SWAP surveys	Existing education initiatives and staffing	Existing involvement in local government lobbying to central government
Scenario 1:	As above, with the addition of a rates-funded weekly food waste collection	No change	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and

						closer working with community
Scenario 2:	As per status quo, with the addition of a rates-funded fortnightly food and garden waste collection	No change	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and closer working with community
Scenario 3:	As per scenario 1	Relocate and extend Ashhurst	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and closer working with community
Scenario 4:	As per scenario 1, with user-pays rubbish bags partly subsidised through general/targeted rate	As per scenario 3	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and closer working with community
Scenario 5	As per scenario 1, with the user-pays rubbish collection changed to a fortnightly rates-	As per scenario 3, with the addition of C&D and ICI material recovery at Awapuni RRC	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and

	funded wheeled bin (120/140L)					closer working with community
Scenario 6	As per scenario 2, with the user-pays rubbish collection changed to a fortnightly rates-funded wheeled bin (120/140L)	As per scenario 5	Bylaw schedules amended as necessary	Increased data collection through licensing	Education increased to include new services	Increased lobbying to central government and closer working with community
Scenario 7	Council withdraws from kerbside services	No change	Council makes use of provisions to regulate industry, e.g.240L wheeled bin ban for rubbish, compulsory recycling provision, licensing	Increased monitoring via licensing systems	Education focus changed to reflect change in service provision	Increased lobbying to central government and closer working with community

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).[32]
- The WMA also requires TAs to have regard to the New Zealand Waste Strategy 2010. The Strategy has two high levels goals: 'Reducing the harmful effects of waste' and 'Improving the efficiency of resource use'. These goals must be taken into consideration in the development of the Council's waste strategy.
- 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 Public Health Bill is currently progressing through Parliament. It is a major legislative reform reviewing and updating the Health Act 1956, but it contains similar provisions for sanitary services to those currently contained in the Health Act 1956.
- 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

[32] 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.

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.

- 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 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 are put forward. Actions and timeframes for delivery of these 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.

Appendices

A.1.0 Medical Officer of Health Statement

Statement received 13 July 2022

Ashburton District Council Waste Assessment

1.0 Medical Officer of Health Feedback

The Waste Minimisation Act 2008 requires that each Territorial Local Authority (TLA) must review its Waste Management and Minimisation Plan (WMMP) at intervals of not more than 6 years after the last review (s50 (1)). In doing so, it must make a waste assessment before conducting the review (s50 (2)). In making a waste assessment the TLA must consult the Medical Officer of Health (s51(5)(b)).

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 following feedback is provided on the Draft Waste Assessment prepared for Ashburton District Council by Eunomia Research & Consulting.

Public Health Issues

The main issues for public health regarding waste management and waste minimisation are:

- 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 Executive Summary

Comments are summarised under the following categories;

1. Council-provided waste services
2. Education on waste minimization
3. The Solid Waste Management and Minimization Bylaw
4. Demand for organic waste collection services
5. Greenhouse gas emission

6. Industrial, commercial, institutional (ICI) waste diversion
7. Medical waste
8. Electronic waste
9. Need for liaison with iwi
10. Gaps in data/information

Council-provided waste services

It is good to see that Ashburton District Council provides household kerbside waste (weekly) and recycling (fortnightly) collection services, litter bins, two resource recovery parks in Ashburton and Rakaia, drop-off points for various items in Methven and several rural recycling drop-off points. It is also good to see the reuse shop, charity shops, second-hand stores, and smaller scrap metal recyclers divert material from going into landfill.

Recommendations:

- *The Medical Officer of Health recommends the Council provide public space recycling bins for example in playgrounds, parks and public libraries to support the public to dispose of recyclable materials appropriately.*
- *The Medical Officer of Health recommends the Council to review the gate charges at RDOPs facilities to encourage users/customers to sort their waste and divert recyclable materials away from landfill.*

Education on waste minimisation

The Medical Officer of Health commends the Council for supporting waste education and minimisation programmes that engage with businesses and schools.

Recommendation:

- *The Medical Officer of Health recommends the Council communicates with communities on changes to existing services, introduction of new services and provide further clarification of acceptable material in the waste and recycling kerbside collection bins.*

The Solid Waste Management and Minimization Bylaw

The use of a Bylaw can allow the Council to have control over waste management processes, request data on waste quantity and can prosecute illegal waste dumping if required.

Recommendation:

- *The Medical Officer of Health recommends the Council implement the provisions of the solid waste management Bylaw fully and regulate the industry using these tools.*

Demand for organic waste collection services

It's good to see that the Council has made significant improvements in household waste diversion through the introduction of its council-contracted waste and recyclables collection services. However, as this Draft Waste Assessment mentions, there is a significant quantity of food waste in household kerbside rubbish collections because there is no food waste collection service in the district except for some private arrangements. This supports the need for Council-contracted household food waste collection. The fact that there are significant policy and financial drivers that support the diversion of organic waste from landfill and that Ashburton has a nearby food waste processing facility, it is likely

the council can introduce kerbside food/garden waste collection.

Recommendation:

- *The Medical Officer of Health recommends the Council implement kerbside organic waste collection using similar wheelie bins as it is currently using for its waste and recyclables. This can provide the biggest opportunity to divert organic waste from landfill and decrease greenhouse gas emissions.*

Greenhouse gas emissions

The predominant source of GHG 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.

- There are no organic waste collection services in the district except for some private arrangements and significant organic waste ends up in kerbside rubbish collection which goes into landfill.
- Kate Valley landfill accepts organic waste, captures the gas emitted from the sealed landfill cells and uses it to create electrical power but some methane escapes to contribute to climate change.
- The air-curtain burner (ACB) Class 1 landfill accepts organic waste, construction and demolition waste. Does not incorporate energy recovery from burning the construction and demolition waste/organic waste.

Recommendation:

- *Recommendation as per 4. Demand for organic waste collection services*

Industrial, commercial, institutional (ICI) waste diversion

The Council does not provide kerbside rubbish collection services for businesses unless they are eligible for the household kerbside collection service. Instead, businesses organise rubbish collection service from the local private operators or take rubbish directly to one of the RRPs for disposal. As a result, businesses are inappropriately disposing of recyclable material (such as cardboard) in rubbish collections. There are also organics and construction/demolition waste in the rubbish collections.

Recommendation:

- *The Council is encouraged to extend its kerbside recycling to businesses on the user-pays Council run scheme to capture recyclables that would otherwise end up in landfills.*

Medical waste

As mentioned in this Draft Waste Assessment, a significant proportion of in-home medical waste is currently disposed of through general waste and recycling systems and this could result in significant health and safety concerns for the collection and processing staff.

Recommendations:

- *The Council is encouraged to define domestic medical waste.*
- *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.*

Electronic waste

The ongoing growth in electronic devices will ensure that e-waste continues to be a growing waste stream, with data showing that households now tend to access the internet through multiple devices rather than a single home computer. The current disposal of e-waste in the district is unclear even though the growing volumes of e-waste pose risks to both the environment and human health. This Draft Waste Assessment does not mention any plan on how the Council will manage its e-waste.

Recommendations:

- *The Council is encouraged to explore options that divert e-waste from landfills by re-using and recycling components of e-waste.*
- *Subsidised e-waste disposal has shown to be an effective method for diverting these materials away from landfill.*

Need for liaison with iwi

It is unfortunate that there was little proactive liaison with iwi carried out during the development of the last WMMP and this Draft Waste Assessment only covers the Māori perspective in a generic sense.

Recommendation:

- *The Medical Officer of Health recommends the council engage with the local iwi (Ngai Tahu) through Mahaanui Kurataiao / Aoraki Environmental Consultancy.*

Gaps in data and information

Section 1.4.4.1 of this Draft Waste Assessment discusses the key issues that are likely to be of concern in terms of public health. It is concerning that some of these issues have not been addressed in this Draft Waste Assessment such as:

- Management of putrescible wastes, biosolids/sludges from WWTP
- Management of hazardous wastes (including asbestos, e-waste, etc.)
- Storage of wastes
- 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 of waste.

Based on this Draft Waste Assessment, Ashburton has a combination of waste facilities:

- ❖ That are owned, operated and managed by council with reliable data on the waste flows.
- ❖ That are owned and/or operated by commercial entities but data on those services are limited as referenced. Private collection services such as Wastebusters and a nearby facility are under consideration by regulatory enforcement officers because it's unclear exactly what materials they accept nor where they send it for further processing. This Draft Waste Assessment mentions that registration and data

provision requirements in the Council waste bylaw is not yet fully implemented, and there are few data available on private operator activities and non-Council waste streams in general.

Recommendations:

The Medical Officer of Health encourages the Council to review and fully implement its Solid Waste Bylaw to make provision for better waste monitoring, data management and request waste operators to be registered.

- *The Medical Officer of Health strongly encourages the Council to engage more closely with the waste industry to obtain better information on waste quantities generated by the private operators.*
- *The Medical Officer of Health recommends that the Council implement more frequent monitoring of hazardous waste disposal, both types and volumes at the RRP transfer station.*

Ngā mihi,

Matthew Reid

Āpiha o te Hauora | Medical Officer of Health

Te Mana Ora | Te Waipounamu | National Public Health Service

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
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 or 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

There are two ways landfills are currently defined. An industry-led project resulted in the 'Technical Guidelines for Disposal to Land' (2018). MfE have subsequently classified disposal facilities under two regulations, which enable the application of the disposal levy and the collection of data.

A.1.1 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 nonhazardous 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 – Landfill

A Class 5 landfill accepts only clean fill material. The principal control on contaminant discharges to the environment from Class 5 landfills 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 incidental5 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 landfill should pose no significant immediate or future risk to human health or the environment.

The WAC for a Class 5 landfill 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 landfill 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.1.2 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 facilities[33] and the second to require data reporting from 'cleanfills' and transfer stations[34].

These regulations establish definitions for a range of disposal 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:

[33] https://www.legislation.govt.nz/regulation/public/2021/0068/latest/LMS474556.html
[34] 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.		

A.4.0 National Legislative and Policy Context

A.1.3The New Zealand Waste Strategy 2010

The New Zealand Waste Strategy 2010 provides the Government's strategic direction for waste management and minimisation in New Zealand. This strategy was released in 2010 and replaced the 2002 Waste Strategy.

The New Zealand Waste Strategy has two goals. These are to:

- reduce the harmful effects of waste
- improve the efficiency of resource use.

The strategy's goals provide direction to central and local government, businesses (including the waste industry), and communities on where to focus their efforts to manage waste. The strategy's flexible approach ensures waste management and minimisation activities are appropriate for local situations.

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.

MfE has released a draft revised 'New Zealand Waste Strategy' (the Strategy), which was open for consultation until 10th December 2021. The new draft Strategy has a focus on achieving a more 'circular economy' for waste and sets out a multi-decade pathway towards this.

The MfE are currently reviewing submission responses, and the final form of the strategy is not yet known.

The consultation document[35] includes:

- A review of the current situation with waste management in New Zealand, including our performance in the global context
- A proposed new vision and principles for New Zealand
- A staged transition process, with three stages described

[35] https://environment.govt.nz/assets/publications/waste-strategy-and-legislation-consultation-document-.pdf

- A more detailed description of what stage one might look like
- Targets
- Proposals to review associated legislation.

These sections are discussed in more detail.

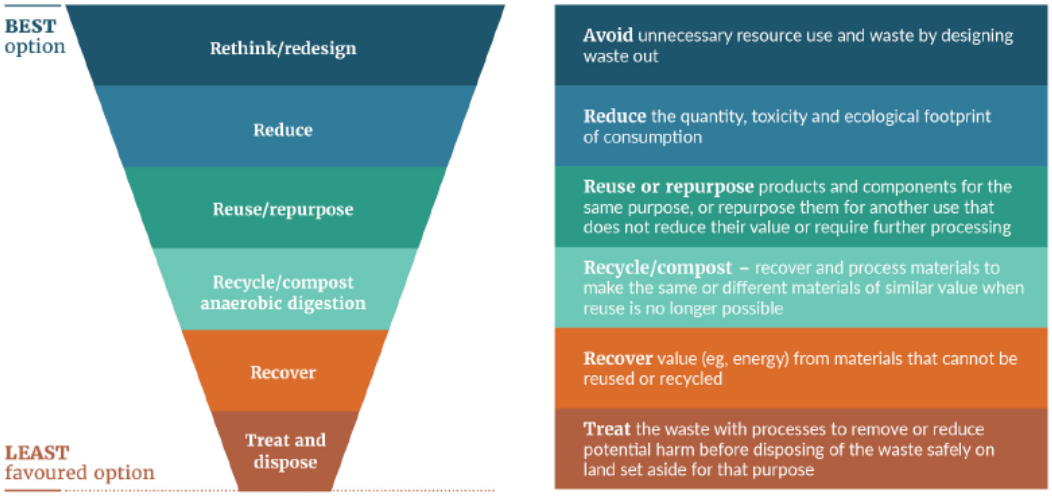
A.1.3.1 Our Waste Challenge

This section of the consultation document describes the current approach to resource use in New Zealand as strongly linear, with a 'take, make, dispose' approach. The issues with this approach are described, including negative environmental impacts from production and consumption and inefficient resource use.

The document recognises the global shift towards a circular economy, with heightened international awareness of the consequences of linear systems. This shift is also strongly aligned with the Sustainable Development Goals[36], and is more consistent with an approach that could meet our emissions reduction targets[37].

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 8: Revised Waste Hierarchy



Source: MfE's Waste Strategy and Legislation Consultation

The consultation document highlights several key facts that demonstrate New Zealand's relatively poor performance in waste management and minimisation:

[36] https://sdgs.un.org/goals
[37] https://www.mpi.govt.nz/consultations/emissions-reduction-plan

- Emissions from waste produce 9% of New Zealand's biogenic methane emissions, and 4% of our total greenhouse gas emissions.
- On average, 750 kg of waste per capita goes to municipal landfills[38] 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
- Historical management has been poor, with numerous legacy disposal sites around the country causing local environmental harm.

While recent years have seen significant improvements, a wider strategic change in direction is warranted to align with global direction and to achieve targets.

A.1.3.2 The Proposed Strategy

The direction of the strategy is important in many very practical ways; it will have 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.

The strategy will coordinate with, and support, a long-term waste infrastructure investment plan – and vice versa. 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 strategy will be implemented through a series of 'action and investment plans' (AIPs), which will set out the more immediate priorities and key actions.

The proposed vision is: *A Circular Economy for New Zealand Aotearoa in 2050* – looking after resources, respecting environmental connection, and wasting nothing.

Six supporting principles are proposed; three of which are aligned with global circular economy principles, and three of which were developed specifically following discussions with leading waste strategists in Aotearoa.

1. Design out waste
2. Keep products/materials at highest value
3. Regenerate natural systems
4. Take responsibility for environmental protection
5. Think in systems – interconnectedness
6. Equitable and inclusive solutions

[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.

A.1.3.3 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: catching up – get the basics in place, prepare for transformational change, bring resource recovery systems up to global standards, reduce emissions
2. 2030 – 40: pushing ahead – widespread changes in mindset, systems, and behaviour, with resource recovery optimised for circularity, and major efforts made to remediate and regenerate
3. 2040 – 50: embedding a new normal – systems are circular across society and resource recovery, production and use systems are regenerative

The first stage has been outlined to a reasonable level of detail, and largely builds on work programmes already published.

Relevant priorities from the 'catching up' phase include:

- getting resource recovery systems working well – simplifying materials, investing, developing end product markets
- reducing emissions from organic waste by… diverting more from landfill (possibly by introducing bans on the disposal of organic material in landfills)

A.1.3.4 Targets

Due to the current lack of comprehensive data on waste flows in New Zealand, targets through to 2030 have been set based on what reliable data is held. This largely relates to Class 1 disposal facilities.

The proposed targets from the consultation document are shown below.

Figure 9: Proposed Targets To 2030

Area	Responsibility	Strategic target (by 2030)
Waste	Whole country	Reduce waste generation by 5–10% per person
	Public sector	Reduce waste generation by 30–50%
	Businesses	Reduce waste disposal by 30–50%
	Households	Reduce waste disposal by 60–70%
Emissions	Whole country	Reduce biogenic waste methane emissions by at least 30%
Litter	Whole country	Reduce litter by 60%

A.1.3.5 Summary

The proposed direction of the draft New Zealand Waste Strategy, the supporting actions, and the suggested 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
- The targets focus on reducing waste generation and waste disposal by 2030 – by quite significant proportions.

While the Waste Strategy is still in draft, it is clear that the overall tone of the strategic direction is not in support of continued or extended disposal of waste; and particularly not organic wastes. Given that the draft was developed in partnership with an industry focus group with representatives from across the sector, it presumably has wide-ranging support and seems unlikely to change significantly in its final form. The alignment with work to reduce emissions makes this particularly unlikely for the aspects that relate specifically to organic waste.

A.1.4 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. Councils "must promote effective and efficient waste management and minimisation within its district" (section 42).

Part 4 requires councils 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 aspects of the Waste Minimisation Act are discussed in more detail below.

A.1.5Waste Levy

From 1st July 2009 the Waste Levy came in to effect, adding $10 per tonne to the cost of landfill disposal at sites which accept household solid waste. 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.

Currently the levy is set at $10/tonne and applies to wastes deposited in landfills accepting household waste. The MfE published a waste disposal levy review in 2014.[39] The review indicates that the levy may be extended in the future:

"The levy was never intended to apply exclusively to household waste, but was applied to landfills that accept household waste as a starting point. Information gathered through the review supports consideration being given to extending levy obligations to additional waste disposal sites, to reduce opportunities for levy avoidance and provide greater incentives for waste minimisation."

A.1.6Product 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] No Priority Products have been declared as of October 2017.

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

[39] Ministry for the Environment. 2014. Review of the effectiveness of the waste disposal levy, 2014 in accordance with section 39 of the Waste Minimisation Act 2008. Wellington: Ministry for the Environment
[40] Waste Management Act 2008 2(8)
[41] http://www.mfe.govt.nz/waste/product-stewardship/accredited-voluntary-schemes

- 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

A.1.7Waste 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 Ministry recently announced that the next Waste Minimisation Fund round would work in quite a different way. Instead of opening for a fixed period of time in May, it will instead open later in the year and will consider applications as they are received, and will agree to fund successful applications until funds are exhausted.

Further details will be released soon on how the restructured fund would work.

A.1.8Local 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 ww.dia.govt.nz/better-local-government.

A.1.8.1 Section 17 A 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 have 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 happens 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.1.9Resource 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 is currently one enacted NES that directly influences the management of waste in New Zealand – 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.

A.1.10 New Zealand Emissions Trading Scheme

The Climate Change Response Act 2002 and associated regulations is 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.

The NZ ETS was introduced in 2010 and, from 2013, landfills have been required to surrender New Zealand Emissions Units for each tonne of CO_2 (equivalent) that they produce. Until recently however the impact of the NZETS on disposal prices has been limited. There are a number of reasons for this:

- The global price of carbon crashed during the GFC in 2007-8 and has been slow to recover. Prior to the crash it was trading at around $20 per tonne. The price has been as low as $2, although since, in June 2015, the Government moved to no longer accept international units in NZETS the NZU price has increased markedly (currently sitting at around $19 per tonne[42]) .
- The transitional provisions of the Climate Change Response Act, which were extended in 2013 (but have now been reviewed), mean that landfills have only had to surrender half the number of units they would be required to otherwise. These transitional provisions were removed in January 2017 which will effectively double 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 into CO_2) 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, two for one surrender only required, and methane destruction of 80-90%) these mean that the actual cost of compliance with the NZETS has been small for most landfills – particularly those that are able to claim high rates of gas capture. Disposal facilities have typically imposed charges (in the order of $5 per tonne) to their customers, but these charges have 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 2-4 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 and 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. Reasons for this include:

[42] https://carbonmatch.co.nz/ accessed 25 October 2016

- In June 2015, the Government moved to no longer accept international units in NZETS. This has had a significant impact, as cheap international units which drove the price down cannot be used. Many of these were also of dubious merit as GHG offsets[43]. This has resulted in a significant rise in the NZU price.
- The transitional provisions relating to two-for-one surrender of NZUs were removed from 1 January 2017, meaning that landfills will need to surrender twice the number of NZUs they do currently – effectively doubling the cost of compliance.
- The United Nations Climate Change Conference, (COP21) held in Paris France in November – December of 2015, established universal (but non-binding) emissions reduction targets for all the nations of the world. The outcomes could result in growing demand for carbon offsets and hence drive up the price of carbon. Balanced against this however is the degree to which the United States, under the new Republican administration, will ratify its commitments.

These changes to the scheme mean that 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 could put further pressure on small (predominantly Council owned) facilities and drive further tonnage towards the large regional facilities (predominantly privately owned).

If for example, the price of carbon were to rise to $50 per tonne, the liability for a landfill without gas capture will be $65.50 (based on a default emissions factor of 1.31 tonnes of CO_2e per tonne of waste), whereas for a landfill claiming 90% gas capture (the maximum allowed under the scheme), the liability will be only $6.55. This type of price differential will mean it will 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.1.11 Litter Act 1979

Under the Litter Act 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.

[43] http://morganfoundation.org.nz/wp-content/uploads/2016/04/ClimateCheat_Report9.pdf

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 may be reviewed alongside the review of the Waste Minimisation Act.

A.1.12 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 given 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.[44] 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.1.13 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 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.[45]

A.1.14 Health and Safety at Work Act 2015[46]

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.

[44] From: MfE 2009: Waste Management and Minimisation Planning, Guidance for Territorial Authorities.
[45] From: MfE 2009: Waste Management and Minimisation Planning, Guidance for Territorial Authorities.
[46] http://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html#DLM6564701

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.

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.1.15 Other legislation

Other legislation that relates to waste management and/or reduction of harm, or improved resource efficiency from waste products includes:

- Hazardous Substances and New Organisms Act 1996
- 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.1.16 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.