Joint Waste Assessment

Prepared for: Hastings District Council & Napier City Council

Prepared by: Tonkin + Taylor

Document Control

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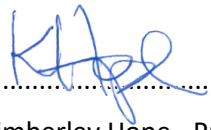

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- Health NZ Te Whatu Ora
- Joint Waste Futures Committee
- Mana whenua.

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Glossary

Term	Definition
Anaerobic digestion	Process to recover value from organic materials within a sealed vessel without the presence of oxygen. Outputs from anaerobic digestion include digestate and biogas.
Bioeconomy	Parts of the economy that use renewable biological resources to produce food, products, and energy.
Circular economy	Economic system that uses a systemic approach to maintain a circular flow of resources by recovering, retaining or adding to their value while contributing to sustainable development.
Class 1 landfill	Landfills accepting municipal solid waste which includes household waste, commercial waste and other wastes.
Class 2 landfill	Landfills accepting non-putrescible wastes including construction and demolition waste such as wood products, asphalt, plasterboard, insulation and other inert industrial wastes.
Class 3 landfill	Landfills accepting hazardous waste such as asbestos, contaminated soil, and other hazardous materials.
Class 4 landfill	Landfills accepting inert materials like clay, soil and rock, as well as concrete or brick.
Class 5 landfill	Landfills accepting only virgin excavated natural material, such as clay, soil or rock for disposal.
Composting	Process to recover value from organic materials including in-vessel composting, vermi-composting, static pile composting, and windrow composting.
Conscious consumption	Avoiding purchasing unnecessary items and purchasing products that have a positive social, environmental or economic impact.
Construction and demolition waste	Waste created during the construction, renovation or demolition of residential and commercial buildings and facilities. This includes both vertical infrastructure, such as buildings and horizontal infrastructure, such as roading and bridges.
Diversion rate	Portion of materials recovered for recycling, reuse, composting etc. relative to total waste stream.
Diverted material	Materials that are reused, repaired, repurposed, recycled, composted or processed via anaerobic digestion.
Extended producer responsibility	Where manufacturers take responsibility for the entire lifecycle of their products, including recycling and proper disposal.
Hapū	Kinship group, clan, subtribe. The primary political unit in traditional Māori society consisting of a number of whānau sharing descent from a common ancestor. A number of related hapū usually shared adjacent territories forming a looser tribal federation or iwi.
Kaupapa	Topic, purpose, agenda, program.
Mana whenua	Authority associated with whakapapa to, and occupation of tribal lands. Each mana whenua group may define this uniquely.
Mātauranga Māori	Māori traditional or ancestral knowledge.

Term	Definition
Mauri	Life force, vital essence, essential quality and vitality of a being.
Motu	Nation, country, land.
Ngā atua Māori	Traditional deities that preside over certain domains, divine or supreme ancestors of Tangata Whenua, traceable in whakapapa for many Māori.
Ngāi Tūhoe	Iwi of Te Urewera, descendants of Tūhoe or Pōtiki.
Organic materials	Materials suitable for organic material recovery e.g. composting including food and garden waste, timber, plant materials, and sawdust.
Papatūānuku	Earth Mother or earth's surface.
Product stewardship	Product stewardship is when people and businesses take responsibility for the life-cycle impacts of their products, either voluntarily or in response to regulatory tools.
Putrescibles	A subset of organic materials - components of the waste stream likely to become putrid e.g. skins and pelts.
Rangi-nui	Sky Father or air/sky.
Tangata whenua	People of the land, the indigenous people of Aotearoa.
Taonga	Treasure, natural resource(s).
Te ao Māori	Māori worldview.
Te taiao	The environment.
Te Tiriti o Waitangi	The Treaty of Waitangi.

Term	Definition
Te Urewera	The homelands of Ngāi Tūhoe, Te Urewera is recognised in law as an identity and legal person in its own right.
Tikanga	Māori system of values and practices, Māori law, customary law, attitudes and principles.
Tīpuna	Ancestors, grandparents.
Waste	Any thing disposed of or discarded including a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.
Waste hierarchy	A strategic framework of waste management principles indicating best and least favoured options to reduce and manage waste.
Waste levy	Charge applied per tonne of material disposed to class 1,2,3 or 4 landfills paid to the Ministry for the Environment used to fund waste minimisation activities, projects to remediate contaminated sites, activities that reduce environmental harm or increase environmental benefits, the Ministry's waste and hazardous substances work programme and local authorities to manage emergency waste and to repair or replace waste infrastructure damaged by an emergency.
Waste generation	Total waste that enters the waste management system; includes both waste disposed to landfill and diverted material.

Term	Definition
Waste disposal	Any waste that is disposed to landfill (including classes 1-5).
Industrial waste	Waste from industrial, commercial, and institutional sources.
Residential waste	All waste originating from residential premises other than that covered by one of the other, more specific classifications.
Rohe	Territory, area.
Special wastes	Any substantial waste stream that either requires special handling or significantly affects the overall composition of the waste stream. Examples may include biosolids, clean fill, skins and pelts.

Abbreviations

Acronym	Word
CRS	Container return scheme
ERP	Emissions reduction plan
ERP2	Second emissions reduction plan
ETS	Emissions trading scheme
HDC	Hastings District Council
MfE	Ministry for the Environment
MRF	Material recovery facility
NCC	Napier City Council
RCANZ	Repair Café Aotearoa
RMA	Resource Management Act 1991
RTS	Refuse transfer station
SDG	Sustainable Development Goals
SWAP	Solid waste analysis protocol
WMA	Waste Minimisation Act 2008
WMMP	Waste management and minimisation plan

Executive summary

Introduction

The Waste Minimisation Act 2008 requires a council's Waste Management and Minimisation Plan (WMMP) to be reviewed every six years. To do this, a Waste Assessment must be completed, considering how waste is managed and minimised locally whether by local government, the commercial sector or through non-for-profit organisations. This Joint Waste Assessment for Heretaunga Hastings and Ahuriri Napier provides the foundation for the Waste Management and Minimisation Plan.

Where we are now

The new Te rautaki para / Waste strategy sets an ambitious roadmap for circular economy and emissions reduction for Aotearoa New Zealand. The key focus of the strategy is:

- Taking responsibility for waste and providing equitable outcomes
- Circular economy, and wider systems approaches (across sectors and beyond waste only)
- Reducing what waste is generated (all waste and recycling material that enters the waste system) and disposed (landfilled), and
- Reducing emissions from waste.

At a national level, the waste sector is going through significant change creating some uncertainty. This will influence local waste planning for the councils, particularly in relation to the inclusion of Māori and mana whenua partnerships, proposed standardisation of kerbside services, including food scraps collection, and changes to waste disposal levy and allocations to territorial authorities. Alongside this, local communities must respond to climate change, reducing emissions from waste activity and adapting to the impacts of climate change.

A review of local waste infrastructure and services indicates that the region is well set up with waste infrastructure provided from both the councils and the commercial sector. Current education and behaviour change approaches to support local services are having a positive impact on the community with waste per capita remaining stable or decreasing. However, the increasing population across both the councils areas and little measurable progress on commercial waste minimisation is leading to an overall increase in waste to landfill each year.

There are opportunities to:

- Prioritise services that support more circular activity (i.e. reduction and reuse), supported by education and behaviour change
- Utilise and strengthen partnerships with Māori and mana whenua organisations to inform waste management and minimisation
- Improve the capture of material for recycling and recovery at the kerbside, transfer stations, and the landfill
- Review the transfer station infrastructure and network to increase resource recovery
- Reduce emissions through a focus on key waste streams - organic waste, construction and demolition waste, and commercial waste

Alongside this, there are key challenges to progress, including:

- Ahuriri Napier and Heretaunga Hastings are facing a challenging economic climate and dealing with the impacts of climate change.

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This has caused financial restraints for the councils, making it difficult to action change

- Resilience and adaption to climate change will continue to be important with the ongoing recovery from Cyclone Gabrielle still evident.
- Genuinely giving effect to the expectations and aspirations of all mana whenua groups is challenging to achieve given timeframes, and internal capability and capacity
- A large portion of landfilled waste from the commercial sector, where the councils have less visibility and direct influence
- There is also local recovery activity occurring but very little data to confirm the effectiveness of current systems and where future opportunities lie. This makes it difficult to effect change to the overall waste system, without collaboration across sectors, and organisations.

Despite the challenging environment, there are opportunities to build on current waste systems particularly within the regional economy for primary production, food manufacturing and tourism, and event sectors to drive local circular approaches.

Where do we want to be

There are a number of key drivers that influence the future direction of waste management and minimisation:

1 Alignment with the vision and goals of Te rautaki para|Waste strategy

2 Partnership with mana whenua

3 The existing WMMP strategic framework

4 Community visions for Heretaunga Hastings district and Ahuriri Napier city

5 The focus and priorities of the Joint Waste Futures Committee.

With this in mind, the Joint Waste Futures Committee drafted a strategic framework aligned with the Te rautaki para|Waste strategy.

Concurrently, the councils have been carrying out initial engagement with mana whenua partners. These initial engagements, which are still underway during the development of this waste assessment, intend mainly to secure relationships with mana whenua to then begin jointly determining what a partnered future looks like.

The final strategic framework will be subject to the approach determined with mana whenua and also consultation with the wider community as part of the WMMP consultation.

How are we going to get there?

To meet the forecast demands of the region and achieve the vision, goals and targets set out in the strategic framework, the following key focus areas were identified:

1 Mana whenua partnership and giving effect to te ao Māori
2 Driving change in a challenging economic climate
3 Understanding materials flows to Class 2-5 disposal facilities
4 Climate change (adaptation and mitigation)
5 Data gaps and technology
6 Anticipating and responding to future national policy changes
7 Increasing recovery of materials
8 Addressing infrastructure gaps
9 Limited council influence on large portion of commercial waste
10 Driving local circular initiatives.

Building on existing and planned activities, a number of options were identified to address the key focus areas. These were evaluated and priority options proposed for incorporation into the draft WMMP Action Plan.

The contribution of these priority actions to the proposed targets for waste avoidance and recovery (i.e. reducing waste to landfill), and reduction in carbon emissions, alongside associated spend was analysed. Two scenarios were modelled – realistic and stretch. The realistic scenario acknowledges the current economic environment and limited ability for councils to invest but allows progress to be made towards targets focusing on enabling actions. Under this scenario, achieving waste targets would occur over a longer period of time but not by 2030. The stretch scenario focuses on achieving the national 2030 targets for waste generation and reduction, with increased investment and resources to effect change within the next WMMP i.e. by 2030.

The proposed vision focuses on ensuring systems are set up to enable successful recovery of waste and change in mindset towards consumption and the generation of waste. Over the next six years, the councils will continue to ensure public health is adequately protected by providing facilities for the safe recovery and disposal of waste. Alongside this, the councils will improve the delivery of waste services and facilities with a focus on supporting and enabling the community to contribute through:

- Developing partnerships and collaboration with mana whenua, industry and community groups
- Enabling and/or supporting investment in infrastructure and services that will transition the community to a more circular economy with associated increased resource recovery
- Developing effective behaviour change and education programmes
- Continued leadership to industry, the community, and residents
- Ensuring council owned services and facilities are consistent across the councils through ongoing collaboration.

As required under the Waste Minimisation Act 2008, the Medical Officer of Health has reviewed this waste assessment and provided a statement with recommendations related to public health, which have been incorporated into this waste assessment.

1 Introduction

1.1 Background

This waste assessment has been prepared for the Hastings District Council (HDC) and Napier City Council (NCC) in accordance with the requirements of the Waste Minimisation Act 2008 (WMA).

The waste assessment describes the current waste situation, sets out a draft strategic framework (vision, goals, objectives and targets) for the councils, and develops options for meeting future demand. The outputs from this waste assessment will be summarised in the final Joint Waste Management and Minimisation Plan (WMMP).

This waste assessment and the subsequent WMMP meet each Council's obligation to evaluate and plan for waste minimisation and management in their district under the WMA.

While a waste assessment must be prepared to enable the review of the WMMP every six years, this assessment takes a much longer-term view. This recognises local government long term planning approaches and that decisions on contracts for services (typically 10 years or more) and infrastructure investment (with a service life of 20-50 years) span many years.

1.2 Structure of this document

This waste assessment contains three parts:

Part 1 – where are we now?

Including policy and legislative context, the current waste situation summarising waste flows, waste infrastructure, services and forecast of future demand.

Part 2 – where do we want to be?

This includes the vision, goals, objectives and targets for waste management and minimisation in Hastings District and Napier City.

Part 3 – how are we going to get there?

This section identifies options for waste management and minimisation and assesses the suitability of each option in achieving the vision and goals (as required by Section 51 of the WMA). A summary of the outcome of consultation with the Medical Officer of Health is also included.

The preferred options from Part 3 of the waste assessment will form the basis of the WMMP alongside the draft vision, goals, objectives and targets.

1.3 Joint approach

The councils have opted to undertake the waste assessment and WMMP process together due to their close proximity and linkages. The development of this waste assessment is in line with guidance from the Ministry for the Environment (MfE) (Ministry for the Environment , 2015).

The joint approach to this waste assessment is grounded in the opportunity to:

- Ensure mutually helpful projects are established
- Avoid duplication of effort and leverage the combined value of funding available
- Realise potential for economies of scale when purchasing and delivering waste infrastructure, services or selling products to market
- Enable collaboration across communities to maximise benefits of initiatives that create a more circular economy.

Alongside preparing this waste assessment, the councils are involved in preparing the Regional Resilience Resource Recovery Infrastructure Plan for Tairāwhiti and Hawke's Bay led by MfE. Any relevant outputs from the project have been incorporated into the waste assessment.

1.4 Scope of this waste assessment

In this waste assessment, information has been presented at three levels of detail:

- Individual councils
- Council vs commercial sector waste activity
- System view (aggregated information and approach from both the councils to identify gaps and future demand).

Before looking at the strategic context and current situation, it is important to define the scope for the waste assessment.

1.4.1 What is waste?

For this document waste is defined according to the WMA as being:

- Anything disposed of or discarded; and
- includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste (C+D); and
- to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.

Further definitions are provided in the Glossary of this document.

For clarity, waste is focused on solid waste and excludes liquid or gaseous wastes except where this is associated with waste infrastructure or activity (for example landfill gas, emissions reduction, degassing of whiteware, hazardous waste).

1.4.2 Waste generation vs waste disposal

Throughout this waste assessment, waste is considered in the context of:

- Waste generation – any material that enters the waste system, whether it is diverted to reuse or recycling, or disposed to landfill
- Waste disposal – any material that is disposed to landfill (excludes all diverted material).

Silt and wood wastes generated by extreme weather events have not been quantified in this waste assessment. Similarly, industrial or primary sector by-products that are remanufactured or have a beneficial use (i.e. don't enter the 'waste system') are not quantified.

1.5 The circular economy

In the current "take-make-waste" linear economy (Figure 1.1), products are often not designed for reuse, repair, refurbishment or to be remanufactured. This, alongside imperfect recycling and recovery systems, drives the continuous disposal of valuable resources.

Figure 1.1: Linear Economy Model (Barandika. G., 2017)

In contrast, a circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of recovered and natural resources. This is illustrated in Figure 1.2.

The circular economy is based on the following principles:

1 Designing out waste and pollution

2 keeping products and materials in use, and

3 regenerating natural systems.

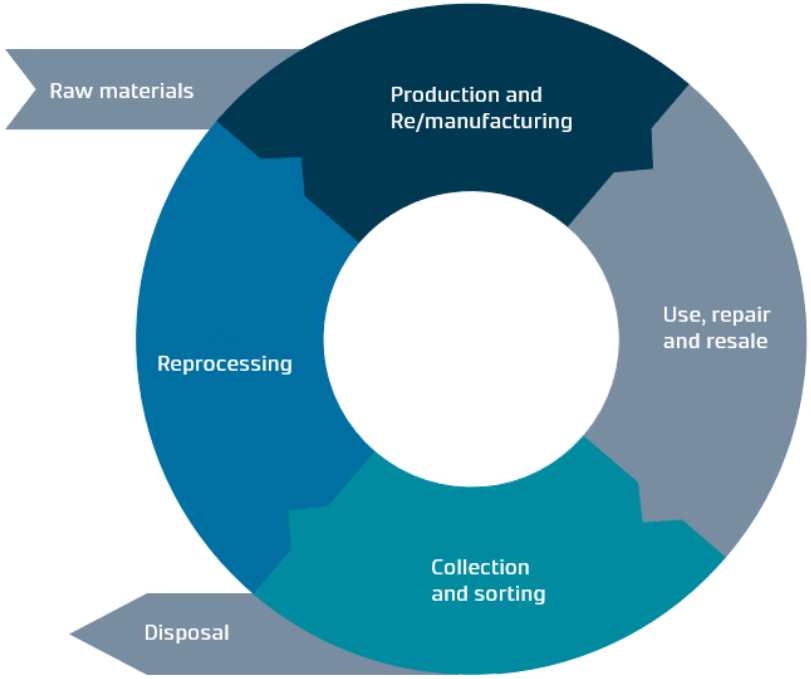

Figure 1.2: Circular economy (European Parliment , 2023)

A circular economy is more than how we manage waste. The circular economy prioritises waste avoidance through considering end-of-life from the very beginning of the design phase of a product. This requires a whole of economy shift, given that our current economy is based on the continuous consumption and disposal of goods to generate economic profit.

The circular economy requires a systems-thinking approach to the way we design products and services. This in turn requires extensive collaboration across stakeholders in each value chain. This implies ongoing economic activity but with less impact and wider benefits.

To drive a shift to a circular economy it is important to have the correct levers in place for individuals to make informed decisions. These include educational material, regulations, advocacy, and infrastructure. This Waste assessment and the WMMP considers which of these are currently in place and opportunities to add to or adjust the current state to support and accelerate the transition to a circular economy.

1.5.1 The waste hierarchy

The circular economy emphasises the designing out of waste and pollution. In line with this thinking, the waste hierarchy (Figure 1.3) is a useful framework to prioritise waste avoidance and actions that support a circular economy. Where value cannot be recovered from the materials, or there is no current market for the material the focus is on safe treatment and disposal.

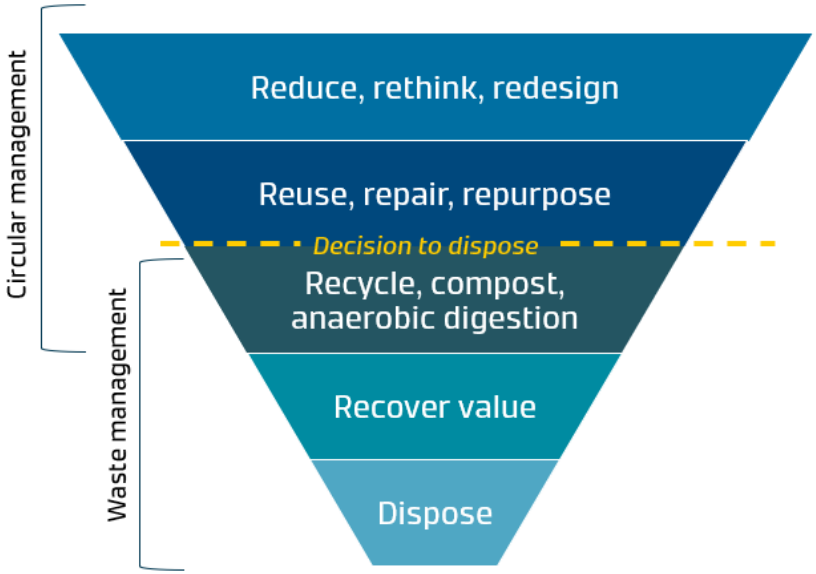

Figure 1.3: Waste hierarchy (Ministry for the Environment, 2023)

1.5.2 Waste and carbon emissions

The manufacturing, consumption and disposal of materials all produce carbon emissions. Investment in circular economy and bioeconomy strategies is one of the five main actions to support the Aotearoa New Zealand Government's emissions reduction goals (Ministry for the Environment, 2022).

This waste assessment recognises the importance of reduced consumption and careful management of waste materials to reduce emissions. Using reported waste-related emissions from Napier and Hastings Community Carbon Footprint (AECOM New Zealand Limited, 2022) as a starting point, this waste assessment highlights the opportunity for the councils to reduce emissions through a focus on:

- **Designing out waste** and the associated embodied carbon and potential emissions from landfill and other waste infrastructure when constructing local infrastructure and buildings
- **Influencing consumption behaviour** locally to reduce waste and emissions from products and materials we use as a community
- **Keeping products and materials in use** through a robust local recovery network which preserves embodied energy and carbon for longer and reduces emissions from transporting materials elsewhere in Aotearoa New Zealand or internationally
- **Reuse or use recycled material** where this is more efficient than virgin material
- Incorporating waste into wider natural systems, which changes the focus to **regeneration.** For example: organic waste recovery into compost that can be used for planting or biodiversity projects

1.5.3 Waste and water impacts

Water related impacts of materials and products are reduced if we use products more efficiently. Circular economy approaches will also address water impacts such as:

- Enhanced water retention through use of recovered organic materials (mulch, composts)
- Water-sensitive design of infrastructure
- Reduced illegal dumping and littering reduces both physical and chemical contamination of waterways
- Effective site sediment management through education and training.

1.5.4 Waste and social impacts

Solutions based on a circular economy approach can also have social benefits or incorporate improved social outcomes. For example, tools for reducing food waste e.g. planning meals and using leftovers can reduce costs to households, which is particularly beneficial for low-income families. Access to local food rescue and purchasing durable items can also provide cost-effective consumption models for households. Co-benefits of circular activities can include:

- Social connection through community-driven waste and resource recovery initiatives
- Employment opportunities for groups that may have difficulty finding employment
- Investment back into the purpose of the organisation.

In addition, robust waste minimisation and management processes are foundational to protecting human health through:

- Equitable access to strategies that promote waste minimisation practices and effective waste management
- Reducing community exposure to dust, noise and odours which may arise from waste management facilities
- Minimising and managing potential pests throughout the waste management process (such as flies, rats and mosquitoes). These can cause nuisance and spread diseases

- Minimising the use of hazardous substances and ensuring that waste which is directly hazardous to human health can be disposed of in accordance with best practice
- Reducing greenhouse gas emissions, which has co-benefits for health by reducing the negative health impacts of climate change.

1.6 Partnering with mana whenua

The councils aspire to work in partnership with mana whenua across their activities, including waste management and minimisation.

The finite state of natural resources bestows a responsibility on us as humans to respect, protect, and support these taonga that sustain the health and wellbeing of people and communities. As part of the WMMP process there is a desire to embrace indigenous knowledge, acknowledged by both councils as having a rightful and beneficial role in guiding how we interact with te taiao. This can only be achieved by partnering with mana whenua.

Both councils are on a journey of enhancing their partnership with mana whenua, both as individual councils and more recently as part of their joint waste management and minimisation workstream. Their collective approach to enhancing mana whenua partnerships for waste management and minimisation is driven not only by a need to meet their obligations as Te Tiriti o Waitangi partners, but their desire to be guided by mana whenua when interacting with te taiao. Their individual and collective journeys of mana whenua partnership, and examples where mana whenua have participated in determining the design and delivery of community-wide outcomes, have proven for these councils that sitting side-by-side with te ao Māori is beneficial.

Learnings from their partnership journeys so far, indicate that the principles underpinning the concept of circular economy, including the regeneration of natural systems, intergenerational thinking and interconnectedness of systems are firmly aligned with te ao Māori. This alignment is reinforced by the work of indigenous scientists such as Teina Boasa-Dean (Ngāi Tūhoe) who in partnership with Juhi Shareef (a UK-born woman of Indian-Pakistani descent who has her own experience of colonialism) has refined the Western Doughnut Economics diagram to embody the ancestral wisdom of her Te Urewera tīpuna (Figure 1.4).

Another example of tangata whenua-led re-indigenisation of environmental practice is the Māori organisation, Para Kore. Their kaupapa is educating and advocating from a Māori worldview. They support resilience within Māori communities through mātauranga Māori behaviour-change programmes and services. Their programme works to promote zero-waste, closed-loop living and hopes to see Aotearoa transition to a circular waste economy. Para Kore is about honouring Papatūānuku, our natural land and ngā atua Māori.

Boasa-Dean's diagram and the aspirational kaupapa of Para Kore are pivotal concepts but it is important to acknowledge that these examples cannot be viewed as representative of all tangata whenua. The learnings and observations of indigenous experts from around the motu can only guide the councils' approach to partnering with their own mana whenua.

The appropriate approach to achieving the aspiration of incorporating te ao Māori in a way that is seamless, natural, and inherent, is by utilising and enhancing existing partnerships to include and guide waste management and minimisation. Like the outcomes sought through partnership, the partnership itself should be collaboratively determined with mana whenua.

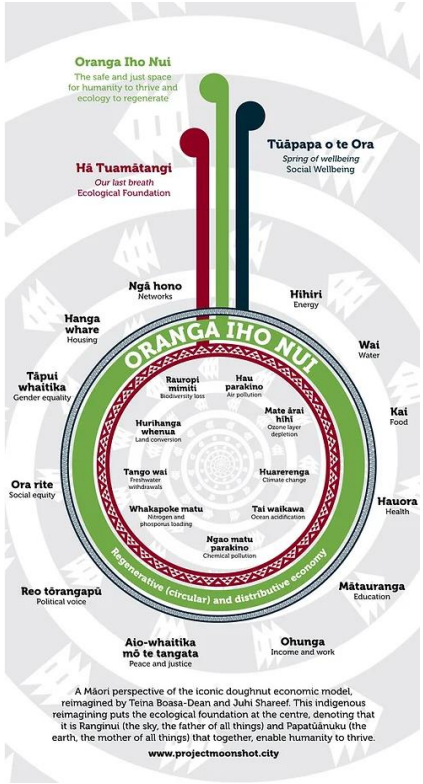

Figure 1.4: The Doughnut Economies figure reimagined from an indigenous Māori perspective

Part 1 - Where are we now?

2 Strategic context

2.1 Aotearoa New Zealand legislative context

Legislation surrounding waste management and minimisation continues to evolve in Aotearoa New Zealand. This section offers a summary of relevant recent legislation, policy and central government activity and how this could influence local waste activity and future demand.

2.1.1 Te rautaki para | Waste strategy

***Te rautaki para | Waste strategy* (2023)** is the Government's core policy document setting the future direction of waste management and minimisation in Aotearoa New Zealand.

The vision of the *Te rautaki para | Waste strategy* commits Aotearoa New Zealand to a low-emissions, low-waste, circular economy by 2050 with a set of guiding principles that the councils have considered within the waste assessment (Figure 2.1).

The strategy provides an increased focus on:

- Taking responsibility and providing equitable outcomes
- The circular economy, and wider systems approaches (across sectors and beyond waste)
- Reducing what waste is generated (all waste and recycling material that enters the waste system) and disposed (landfilled)
- Reducing emissions from waste.

Figure 2.1: Te rautaki para | Waste strategy vision and guiding principles

The strategy includes three national targets to achieve by 2030:

- Waste generation: reduce the amount of material entering the waste management system by 10 per cent per capita
- Waste disposal: reduce the amount of material that needs final disposal by 30 per cent per capita
- Waste emissions: reduce the biogenic methane emissions from waste by at least 30 per cent

Alongside the targets, key parts of the strategy that the councils may need to plan for include:

- Implications from regulated product stewardship schemes

- Data collection and reporting requirements
- Resource recovery infrastructure network (local and national)
- Behaviour change programmes (local and national)
- Contaminated land and remediation.

The aspirations of *Te rautaki para | Waste strategy* are underpinned by several acts in addition to the Waste Minimisation Act 2008, listed in Figure 2.2.

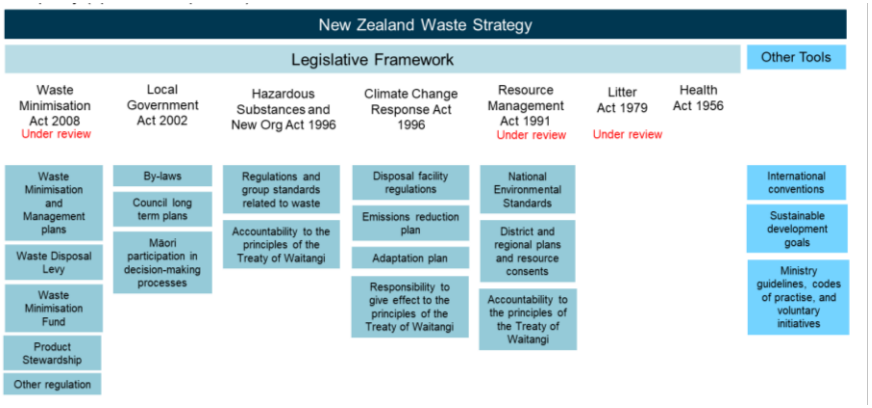

Figure 2.2: Summary of relevant waste legislation

Further detail about these supporting Acts is available in Appendix A1.

There is some uncertainty about what the future legislative framework will look like given a number of these Acts are under review. This includes proposals relating to nationally coordinated investment in infrastructure, clearer obligations for producers of waste (households and businesses) and mandated services such as food waste collection from households.

2.1.2 Waste Minimisation Act 2008

The Waste Minimisation Act 2008 sets a framework to encourage a reduction in the amount of waste generated and disposed of in Aotearoa New Zealand, minimising the environmental harm of waste and providing economic, social and cultural benefits for Aotearoa New Zealand.

The Act includes provisions for:

- A levy imposed on all waste that is landfilled (the waste disposal levy)
- Encouraging or requiring product stewardship
- Allowing local authorities to create bylaws relating to waste management and minimisation
- Requiring waste operators to undertake waste reporting
- Establishing a Waste Advisory Board to give independent advice to the Minister for the Environment on related issues.

2.1.3 Development of WMMP

Section 44 of the WMA requires the councils to have regard to the waste strategy, the waste hierarchy, and their most recent waste assessment (this report) when preparing their WMMP, acknowledging that the Act is under review.

Section 43 of the WMA also states that a WMMP must provide for:

- Objectives and policies for achieving effective and efficient waste management and minimisation within the territorial authority's district
- Methods for achieving effective and efficient waste management and minimisation within the territorial authority's district, including:
  - *collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste*

management and minimisation needs (whether provided by the territorial authority or otherwise) and

- *any waste management and minimisation facilities provided, or to be provided, by the territorial authority and*
- *any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority.*

- How implementing the plan is to be funded; and
- If the territorial authority wishes to make grants or advances of money in accordance with Section 47, the framework for doing so.

The waste assessment and WMMP is required to be reviewed every six years. Due to the impact of Cyclone Gabrielle, the councils submitted a joint application for an extension of the review of the WMMP under Section 33A of the WMA. MfE acknowledged the severe weather events of 2023 presented significant challenges for territorial authorities in the waste area and appreciated the councils' efforts and engagement in this matter. An extension of 13 months from the original date was granted, with the joint-WMMP review now required to be completed (and the resulting WMMP adopted) by 15 September 2025.

2.1.4 Kerbside standardisation

Early in 2023, MfE announced a move to standardise kerbside recycling across the country as part of the workplan/priorities laid out in *Te rautaki para | Waste strategy*. This announcement signalled:

- A **standardised set of recyclable materials** would be collected from households in urban areas
- **Kerbside organics collections** be available to households in all urban areas by 2030
- **Minimum standards for diverting waste from landfill** would apply to the councils, with reporting requirements for private waste companies
- **Businesses would be required to separate food scraps** from general waste by 2030.

The announcement was followed by a Gazette Notice released on 13 September 2023. The Gazette Notice sets out the first tranche of performance standards (New Zealand Gazette, 2023) related to standardisation of materials collected for recycling at the kerbside. The standard set of materials to be collected are:

- Glass bottles and jars
- Paper and cardboard
- Plastic bottles, trays and containers 1, 2 and 5
- Aluminium and steel tins and cans.

As of 1 February 2024, the collection of standard materials applies to all councils that collect kerbside recycling, food scraps or food and garden organics from households and that include such services in their WMMP. The notice also applies to private waste companies that collect household kerbside recycling or organic waste on behalf of the councils. The notice does not apply to transfer stations, community recycling centres, other drop-off recycling schemes or private waste companies and social enterprises that operate collections independently of councils.

The Gazette Notice also signalled that further regulations under Section 48 of the WMA will be developed and that these regulations would:

- Ensure **kerbside recycling services are provided to households in urban areas** (i.e., towns of 1000 people or more) by 2027
- Make **kerbside organics collection services available to households in all urban areas** by 2030.

The need for businesses to also separate food scraps from rubbish by 2030, as signalled in the original announcement, is likely to be considered as part of the broader waste legislation review process.

The lack of clarity regarding the timing of some of these proposals creates a degree of uncertainty for councils. However, *Te rautaki para | Waste strategy* clearly sets out a pathway towards a more circular economy.

With the new Government at the end of 2023 and change in focus, there has been limited information released regarding these future changes.

2.1.5 Waste levy expansion

For every tonne of waste disposed to landfill, a levy is applied and collected by MfE. Since 1 July 2021, the landfill waste disposal levy has been progressively increased and expanded to include a wider range of disposal facilities with further increases scheduled through to 2027 (Table 2.1)[1].

Table 2.1: Waste disposal levy expansion

	2021	2022	2023	2024	2025	2026	2027
Municipal Landfill (class 1)	$20	$30	$50	$60	$65	$70	$75
Construction and Demolition Fill (class 2)	-	$20	$20	$30	$35	$40	$45
Managed or Controlled Fill Facility (class 3 & 4)	-	-	$10	$10	$15	$15	$20

Fifty per cent of the collected levy is allocated to territorial authorities, which must be spent on promoting or achieving the waste minimisation activities set out in their WMMP.

The Minister can distribute the remaining 50 per cent of the levy to fund activities that: promote or achieve waste minimisation, reduce environmental harm or increase environmental benefits, manage waste

[1] Waste Minimisation (Waste Disposal Levy) Amendment Act 2024 extended levy rate increases through to 2027 and expanded what the Minister's portion of the levy could be spent on to include more than waste minimisation activities.

or repair infrastructure damaged in an emergency, as well as fund administrative and ministerial duties[1]. This is managed via the Waste Minimisation Fund to support projects that promote or achieve waste minimisation and provide for the remediation of a contaminated site, including closed landfills.

The increased revenue from the levy expansion provides an opportunity for the councils to invest more in local waste minimisation activities.

At the time of writing the 2018 WMMP, there was no indication that the waste disposal levy would increase from the original $10 per tonne. This meant councils had limited funding options to promote waste minimisation. The increase of the waste disposal levy and flow on effect of increased payments to councils is now enabling them to fund more activities.

2.1.6 Collection of national waste data

As part of waste minimisation regulations (relating to information requirements, and calculation and payment of the waste disposal levy), operators of disposal facilities and transfer stations are required to report on rubbish and diverted material volumes (from 1 July 2024).

Facility operators will need to report on the materials' 'activity source', such as construction, household or business waste. The activity category information will give MfE better insight into the regional and national flow of waste materials and help MfE to shape policies to minimise and manage waste.

In addition, from 1 July 2024, territorial authorities need to report on their levy spending, as well as their waste minimisation activities, including collecting data and reporting on waste received by waste services or facilities managed by a territorial authority (e.g., kerbside recycling collection or material recovery facilities).

2.1.7 Product stewardship

The Government has declared six priority products for product stewardship under the WMA (New Zealand Gazette, 2020) to place responsibilities for managing end-of-life products on producers, importers and retailers and move towards a circular economy. These are:

- plastic packaging
- tyres
- electrical and electronic products (e-waste including large batteries)
- agrichemicals and their containers
- refrigerants and other synthetic greenhouse gases
- farm plastics.

Under the WMA, the declaration of a priority product creates a requirement to develop and accredit a product stewardship scheme, and to prohibit the sale of a priority product except in accordance with the accredited scheme. In establishing a scheme, MfE can also place data collection and reporting requirements on scheme managers.

The operation of the schemes themselves will occur independently of one another and will be delivered by independent entities (subject to the Guidelines for Product Stewardship Schemes for Priority Products Notice 2020).

Figure 2.3: Product stewardship scheme functions (Ministry for the Environment , 2009)

At the time of writing, tyres must be sold in accordance with Tyrewise, the accredited scheme. Co-design of schemes and the process for cabinet approvals have been progressed for large batteries, refrigerants, farm plastics and agrichemicals and e-waste. *Te rautaki para | Waste strategy* indicates that as part of the proposed repeal and placement of the WMA, a wider extended producer responsibility framework would replace the product stewardship provisions in the current legislation. Schemes may have positive impacts for councils and the local community, by funding recovery and disposal of these materials, the costs of which have previously fell to councils. Schemes may also likely increase recovery of materials locally and reduce illegal dumping and associated cost and environmental impacts. Councils can participate in schemes though providing collection points or support others to, and also increase the effectiveness of schemes, by promoting these within local communities. It will be important for councils to participate in the design of proposed schemes to ensure to maximise local benefits.

2.1.8 Container Return Scheme

Alongside kerbside standardisation announcements in early 2023, the Government deferred the introduction of a national beverage container return scheme (**CRS**). A CRS encourages consumers and businesses to return beverage containers (e.g., bottles, cans etc) for recycling and/or reuse. They do this by including a refundable deposit (e.g., 20 cents or more) in the price of purchase.

Figure 2.4: Aotearoa New Zealand Container Return Scheme model (adapted from MfE)

While the scheme has been deferred it has not been abandoned. Depending on the design, any future CRS may have an impact on the quantity of containers collected through kerbside recycling services and

drop-off locations including transfer stations and may significantly increase the value of some collected materials. The current design of the deferred CRS is illustrated in Figure 2.4.

2.1.9 Climate change

Emissions Reduction Plan

In May 2022, the national Emissions Reduction Plan (ERP) (Ministry for the Environment, 2022) was released. The ERP sets out the planned targets and objectives for climate action over the next 15 years. The plan aims to enable a transition to a low-emissions, climate resilient future for Aotearoa New Zealand. As the first of its kind, the Government is placing new requirements on all councils to reduce their emissions from waste with particular focus on emissions from organic materials and landfill gas. A significant opportunity for local government to reduce emissions is to offer a food scraps collection service by 2030 in line with the kerbside standardisation programme of work, however, this is not regulated.

Chapter 2 of the ERP outlines that there are climate change impacts unique to Māori and the crucial role of tangata whenua in informing our nation's transition to low emissions. The plan sets out how mātauranga Māori will be valued and inform the transition to a low-emissions future: "*climate-resilient society will depend on a diverse range of approaches, beyond Western knowledge systems*." There are four actions specific to supporting partnership, participation, protection and equity for Māori.

Earlier this year, the Government released a discussion document for the second emissions reduction plan (ERP2) (Ministry for the Environment, 2024). Section 10 of the discussion document outlines the waste sector and proposed approaches for reducing emissions. This section also briefly discusses waste-associated impacts to iwi and Māori. Referencing 3A of the Climate Change Response Act 1996, the document summary commits to recognising and mitigating impacts to iwi and Māori. These approaches to distributional impacts will be guided by Te Tiriti principles.

At the time of writing, formal engagement and submissions for ERP2 have closed. Final decisions on the plan will be published by the end of 2024.

National Adaptation Plan 2022

The first National Adaptation Plan (Ministry for the Environment, 2022) sets out how Aotearoa New Zealand will build resilience for an uncertain future in the face of climate change, including a programme of work to support councils to take action. For waste management and minimisation, this could include considering adaptation in long term planning for new and existing waste infrastructure, assessment and management of historic landfills at risk of erosion, and resilience planning including the management of disaster waste.

Upholding the principles of Te Tiriti is a central component of the adaptation strategy. The National Adaptation Plan states that adaptation responses will be developed in partnership with Māori – including elevating te ao Māori and mātauranga Māori in the adaptation process. The plan steps through some specific climate-related vulnerabilities of Māori communities and outlines how mātauranga Māori at a hapū and iwi level will be critical to informing local and central government actions.

Ihirangi (the operational arm of Te Pou Take Āhuarangi | Climate Lead for the National Iwi Chairs Forum) was commissioned to provide an indigenous worldview of the national adaptation plan to facilitate working in partnership with Māori. The Rauora framework brings together Māori values and principles into an indigenous worldview of climate change and was published alongside the adaptation strategy.

Emissions Trading Scheme

The NZ Emissions Trading Scheme (ETS) is a key tool in the Government's climate change response toolbox. The purpose of the ETS is to:

- assist Aotearoa New Zealand to meet its international obligations under the Paris Agreement
- help Aotearoa New Zealand to meet its 2050 target and emissions budgets.

The ETS requires certain businesses to measure and report their emissions and surrender emissions units for any emissions a business emits. The Government limits and reduces the units supplied in the scheme over time to drive a reduction in emissions.

For the waste sector, the scheme requires landfill operators to buy and surrender emission units, based on landfill gas emissions. This is intended to drive investment in landfill gas capture and destruction to reduce emissions and related ETS costs. The scheme also influences waste indirectly through other sectors such as transport, as the waste sector relies on the transport of waste and diverted material to reach resource recovery networks and landfills.

In 2023, the Government consulted on possible changes to the ETS, including driving more emissions reduction in the waste sector and the outcome of this consultation is yet to be confirmed.

2.1.10 International commitments

Aotearoa New Zealand is party to the following key international agreements that are of relevance to waste minimisation and management:

- **Basel Convention** – to reduce the movement of hazardous wastes between nations
- **Global Plastics Treaty** - This legally binding treaty is expected to be negotiated by the end of 2024. After negotiation, countries will go through their own treaty-making processes to determine whether they will sign up to the treaty. Through the Aotearoa Plastic Pollution Alliance, a Tangata Whenua Coalition for an Effective Plastics Treaty has been formed with a collaborative forum of Māori plastic pollution experts including scientists, researchers, educators, and community leaders committed to upholding He Whakaputanga, Te Tiriti o Waitangi, mātauranga and tikanga Māori and ensuring the effective participation and representation of tangata whenua throughout the United Nations Global Plastics Treaty development and implementation processes. The primary goal of the Tangata Whenua Coalition is to hold space for independent Māori participation in the Global Plastics Treaty process.
- **Montreal Protocol** – to protect the ozone layer by phasing out the production of ozone-depleting substances
- **Stockholm Convention** – to eliminate or restrict the production and use of persistent organic pollutants
- **Waigani Convention** – bans export of hazardous or radioactive waste to Pacific Islands Forum countries
- **Sustainable Development Goals (**SDGs**)** – Set out a pathway to address global social, economic, and environmental challenges by 2030.

  A summary of SDGs most relevant to solid waste management and minimisation are provided below.

  Goal 3, Good Health and Well-being: Proper waste management reduces exposure to hazardous substances that can cause harm to health.

Goal 11, Sustainable Cities and Communities: Waste management is a crucial part of creating and maintaining liveable communities.

Goal 12, Responsible Consumption and Production: This goal directly targets waste reduction, recycling, and reusing as part of sustainable consumption and production.

Goal 15, Life on Land: Proper waste management can help to reduce land degradation and preserve biodiversity by controlling waste disposal.

- **UNDRIP –** The declaration on the rights of indigenous peoples is the most comprehensive international instrument on the rights of indigenous peoples. It establishes a universal framework of minimum standards for the survival, dignity and well-being of indigenous peoples of the world and it elaborates on existing human rights standards and fundamental freedoms as they apply to indigenous peoples. Seventeen of the 46 articles of the declaration have been identified as especially relevant to this waste assessment. They pertain to self-determinisation, participation in decision-making, anti-assimilation and dispossession, consent, development, traditional territories (historic and current), natural resources, conservation and protection of the environment, cultural knowledge and intellectual property, redress, and enforcement of existing treaties, agreements and other constructive arrangements. Aotearoa New Zealand's commitment to UNDRIP lays a clear expectation for central and local government to give effect to the rights of mana whenua.

2.1.11 National waste infrastructure stocktake

A national stocktake of waste and resource recovery infrastructure was completed in 2022 (Eunomia, 2022) to identify issues, opportunities and gaps in waste infrastructure in Aotearoa New Zealand. The stocktake concluded that the Hawke's Bay region has an established network of local infrastructure through landfills and transfer stations alongside local processing of paper/cardboard (Hawk Group) and organic materials (greenwaste and a range of other materials via composting facilities). As in other more regional centres across Aotearoa New Zealand, key challenges identified included:

- Viability of diverted material markets
- Presence of onshore processing options
- Impacts of climate change
- Climate change policy on different material sectors
- Reuse infrastructure.

The stocktake also indicated that organic and construction and demolition materials were key waste streams to divert from landfill in Hawke's Bay with potential to consider regional infrastructure.

2.2 Regional context

2.2.1 Population

As of 2023 the population was 64,700 in Ahuriri Napier and 90,863 in Heretaunga Hastings (Figure 2.5). Population forecasts show the population is set to grow to 67,050 in Ahuriri Napier and 95,200 in Heretaunga Hastings by 2030.

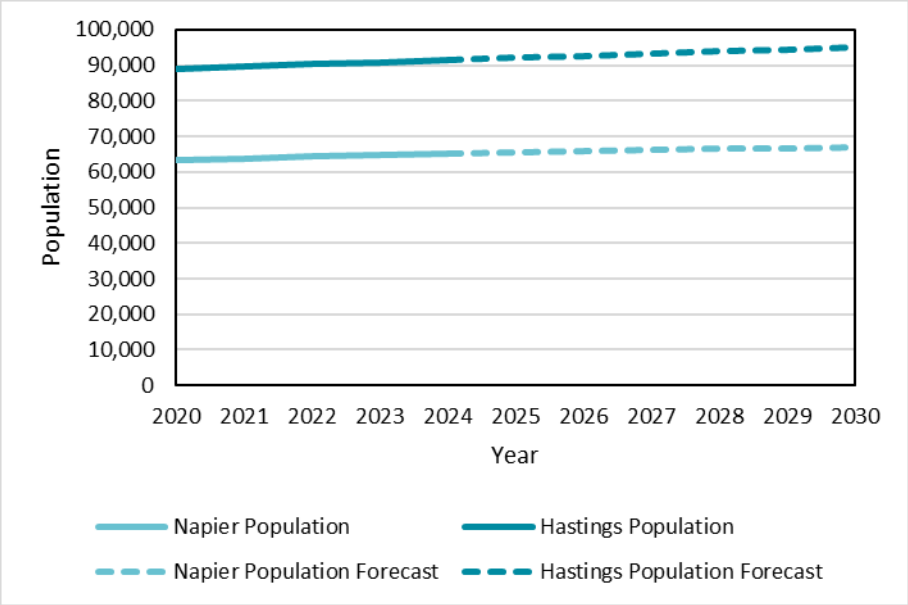

Figure 2.5: The population of Ahuriri Napier and Heretaunga Hastings with forecasts projecting population growth up to 2030[2]

Heretaunga Hastings and Ahuriri Napier have different population characteristics that can influence waste management activities. Ahuriri Napier has a concentrated population (Figure 2.6) compared to Heretaunga Hastings which has a larger, more dispersed population including many rural settlements. Ahuriri Napier and Heretaunga Hastings have a growing elderly population. In Heretaunga Hastings 19.7 per cent of the population were aged 65 years or older in 2020, and this is set to grow to 26.7 per cent by 2036 (Hastings District Council, 2021). Ahuriri Napier's ageing population is also growing, with the portion of the population aged 65 years and older expected to increase from 22.9 per cent in 2022 to 28 per cent by 2033 (Napier City Council, 2021).

Both Ahuriri Napier and Heretaunga Hastings are part of Ngāti Kahungunu rohe. Ngāti Kahungunu is the fourth largest iwi by population. Ten hapū hold mana whenua within the Napier city boundary and the Hastings District Council boundary encompasses more than 100 hapū[3]. The interests of these hapū are represented by their hapū authorities or Post Settlement Governance Entities or PSGEs (which are designated treaty partners within their legislation).

Within the Napier city limits, there are two urban marae, two private marae but no traditional marae are currently active[4]; while Hastings district has 23 marae[3].

Across Ahuriri Napier and Heretaunga Hastings, 25.3 per cent of the population identify as Māori.

[2] HDC and NCC LTP forecasts based on Stats NZ data (medium high forecasts)

[3] Sourced from https://www.napier.govt.nz/assets/Document-Library/District-Plan/Part-1-Introduction/ch03.pdf and https://www.hastingsdc.govt.nz/assets/Document-Library/Policies/Mana-Whenua-Development-Guide/Mana-Whenua-Development-FutureChoiceMaori.pdf

[4] https://www.napier.govt.nz/assets/Uploads/Communities-of-Interest-Summary.pdf

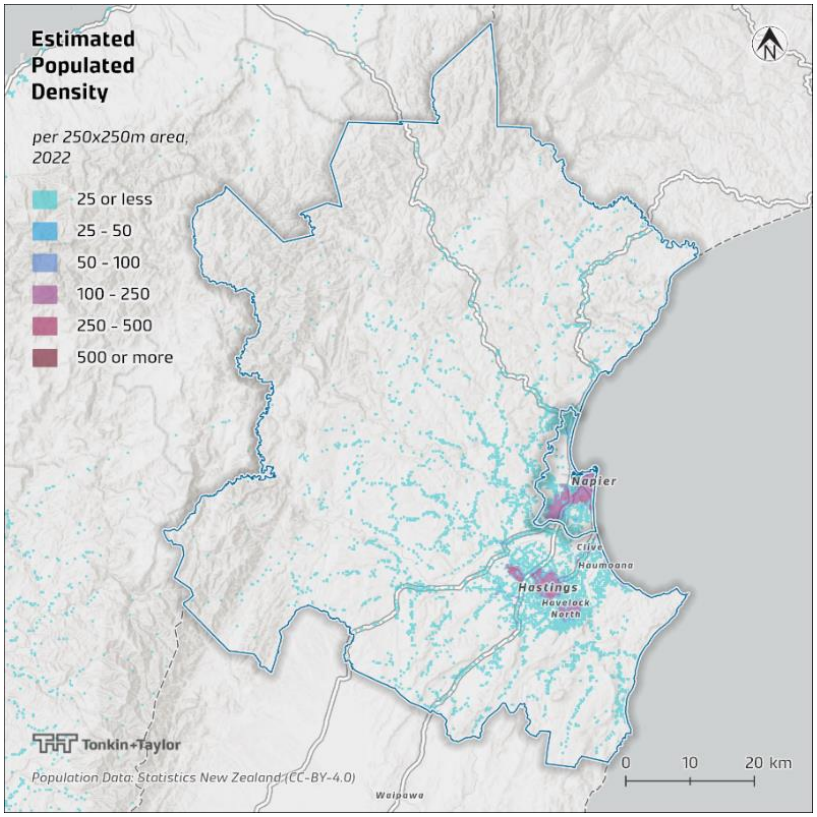

Figure 2.6: Population density across Heretaunga Hastings and Ahuriri Napier (StatsNZ, 2023)

2.2.2 Regional economy

Figure 2.7: Heretaunga Plains

Heretaunga Hastings and Ahuriri Napier are situated on the versatile and productive soils of the Heretaunga Plains within the Te Matau-a-Māui Hawke's Bay region. The area is one of the two largest fruit producing regions in the country, with a strong primary sector grounded in sheep and beef farms, vineyards, orchard and vegetable production. With wineries, art-deco, nature reserves, and a lively events sector, the council areas are an attractive destination for tourists. Beyond tourism, Ahuriri Napier and Heretaunga Hastings are experiencing significant growth with families and professionals relocating to the area.

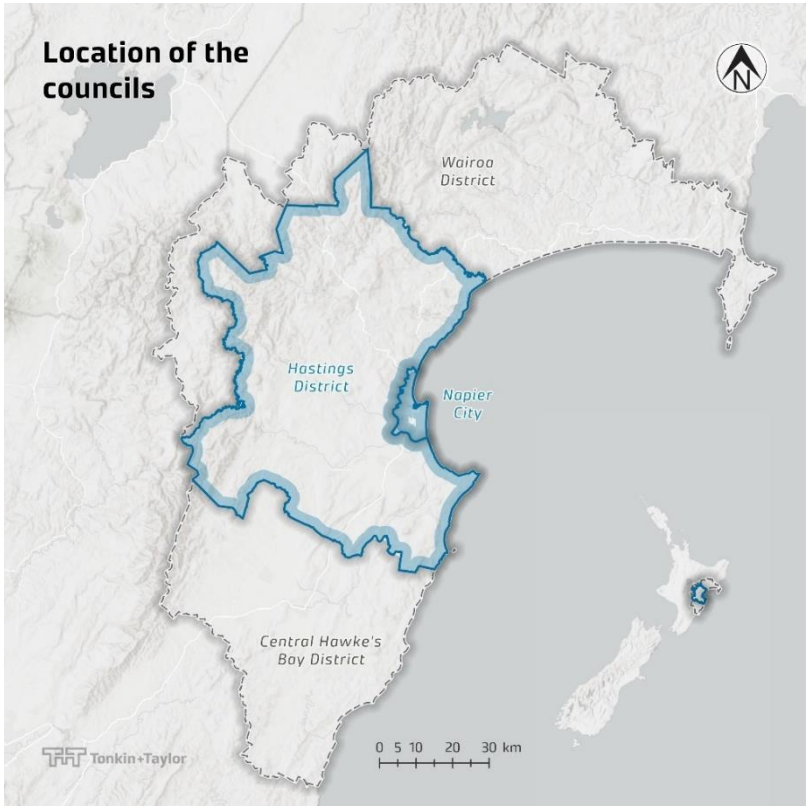

Figure 2.8: Location of HDC and NCC within the Hawke's Bay region

Industry continues to grow in Heretaunga Hastings and Ahuriri Napier. The Napier Port has recently expanded, constructing a new 350-metre-long wharf – Te Whiti. In Heretaunga Hastings, foodeast-haumako has recently been completed. It will offer design, build and lease options to food-related businesses of any size, becoming an incubator for food innovation and production. Heretaunga Hastings also hosts the Irongate, Ōmāhu and Whakatū industrial zones with international, national and local businesses based in the area.

2.2.3 Local strategies and plans

There are several regional and local strategies that have an influence on, or can be supported by, waste minimisation and management across Heretaunga Hastings and Ahuriri Napier. Appendix A2 summarises the relevant strategic direction, context and opportunities/relevance for circular economy at a regional and district level. Key themes across these strategies include:

- Cyclone Gabrielle recovery and rebuild (managing disaster waste and sustainable building practices), building resilience and climate change
- Challenging economic environment focused on maintaining current services
- Reducing emissions (organic and construction and demolition waste)
- Prioritising strategic infrastructure (landfill development)
- Circular economy action in primary production
- Use of technology and innovation
- Sustainable urban development, tourism and events.

Many local Māori organisations also have strategic documents which could inform engagement, partnership and direction for waste management and minimisation.

2.2.4 Bylaws

Local bylaws can provide policy levers to support the implementation of the WMMP. Napier City Council had a Solid Waste Bylaw (2012) which has since lapsed. The bylaw regulated waste management to ensure effective and efficient waste management, waste reduction and minimisation practices and public health. The bylaw-controlled household, kerbside and council transfer station wastes, industrial wastes, public litter bins, the licensing of waste operators and event waste. Hastings District Consolidated Bylaw (2021) provides limited

controls on public place litter bins (clause 2.14), nuisances (clause 10.2) and kerbside rubbish and recycling (clause 10.3).

There is opportunity to review and align bylaw controls across both councils to reflect updated national policy and local context as well as support positive change in waste minimisation and the circular economy through the implementation of future WMMPs.

2.2.5 Hawke's Bay/Te Matau-a-Māui waste and resource recovery infrastructure roadmap

MfE piloted a regional planning approach for waste and resource recovery infrastructure for the Hawke's Bay/Te-Matau-a-Māui and Gisborne/Tairāwhiti councils in 2023. For Hawke's Bay/Te-Matau-a-Māui, four key opportunities were identified to progress in the near future:

1 Aggregate recycling
2 Local, distributed composting
3 Expansion of Existing Composting Facilities
4 Zero Waste Hub.

In the longer term the report recommended the councils:

- Enable a medium-term focus on recycling opportunities by progressing connection and collaboration with end users
- Prepare to re-assess residual waste management options in 10-15 years' time
- Supplement infrastructure opportunities with (co-)investment in consumer and business education, and waste reduction programmes at community, regional and national levels
- Convene the steering and advisory group participants involved in developing this Roadmap, as a voluntary forum to progress the opportunities
- Gain a better understanding how waste is generated, managed, processed and disposed across the region, including commercial contexts
- Iwi/hapū engagement and partnership: Further work needs to be done to align waste system investments with specific values and priorities of mana whenua in Hawke's Bay/Te-Matau-a-Māui.

2.3 Summary of strategic context

Based on the national and regional strategic context, the councils will need to consider the following impacts as part of their future waste planning:

- A broader and more holistic focus on circular economy and emissions reduction as set by the Te Rautaki Para | Waste strategy
- Giving effect to genuine Māori partnership that sees mana whenua exercising their rights as indigenous peoples and Te Tiriti partners.
- Potential changes in waste legislation and related uncertainty particularly for:
  - Proposed standardisation of kerbside services including food scraps collections
  - Waste disposal levy revenue and territorial authority allocations
  - Reporting and enforcement requirements for waste
  - Implementation of extended producer responsibility and container return schemes.
- Addressing climate change and in particular:

  - Reducing emissions from waste (organic derived material and landfill gas)
  - Adaptation and resilience planning for waste infrastructure and disaster waste management (especially considering Cyclone Gabrielle in 2023)
- Impact of ETS on the cost of waste disposal and related sectors (e.g. transport)
- There are opportunities within the regional economy to drive more circular activity within primary production, food manufacturing and tourism and event sectors, however a challenging economic environment and the Cyclone Gabrielle recovery and rebuild will impact on what investment can be made in improved waste services
- While the region has a well-established resource recovery infrastructure network (transfer stations, organics and paper processing), there are some gaps. Consideration should be given to:
  - Viability, resilience and accessibility of diverted material markets and onshore processing solutions
  - Recovery infrastructure for construction and demolition, food scraps and reuse products and materials.

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3 Current State

3.1 Introduction

A key aspect of planning for the future in this waste assessment is gaining an understanding of the current state of waste management and minimisation in Heretaunga Hastings and Ahuriri Napier and how this relates to the wider Te Matau-a--Māui Hawke's Bay and national waste system. Figure 3.1 illustrates the structure of this section.

Overall material flows from waste services through to disposal, recycling or recovery infrastructure are shown in Figure 3.2.

The remainder of this section provides an overview of available waste services and infrastructure, education and behaviour change. The section concludes with an assessment of quantities and composition of materials, emissions from waste and funding mechanisms that support the resource recovery and waste management network.

Where possible, the assessment has focused on balancing detail for individual councils with taking a system view using aggregated information. This includes a snapshot of private sector activity where available.

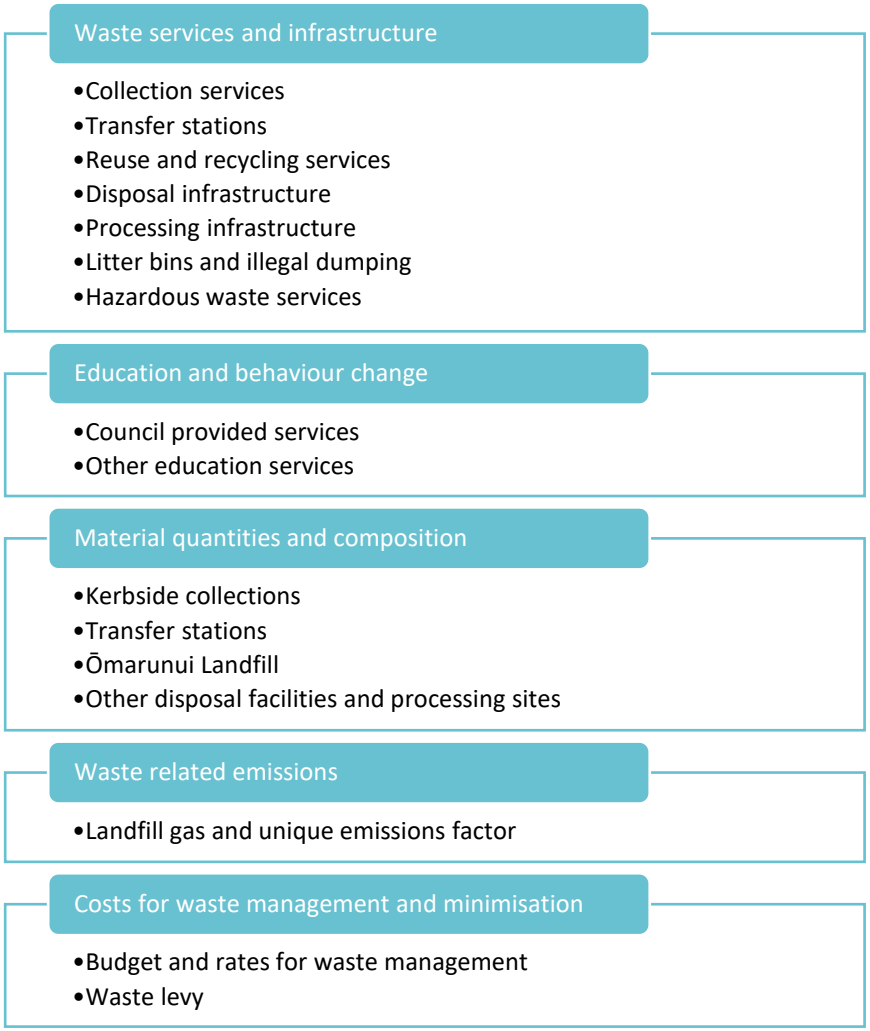

Figure 3.1: Structure of current state assessment

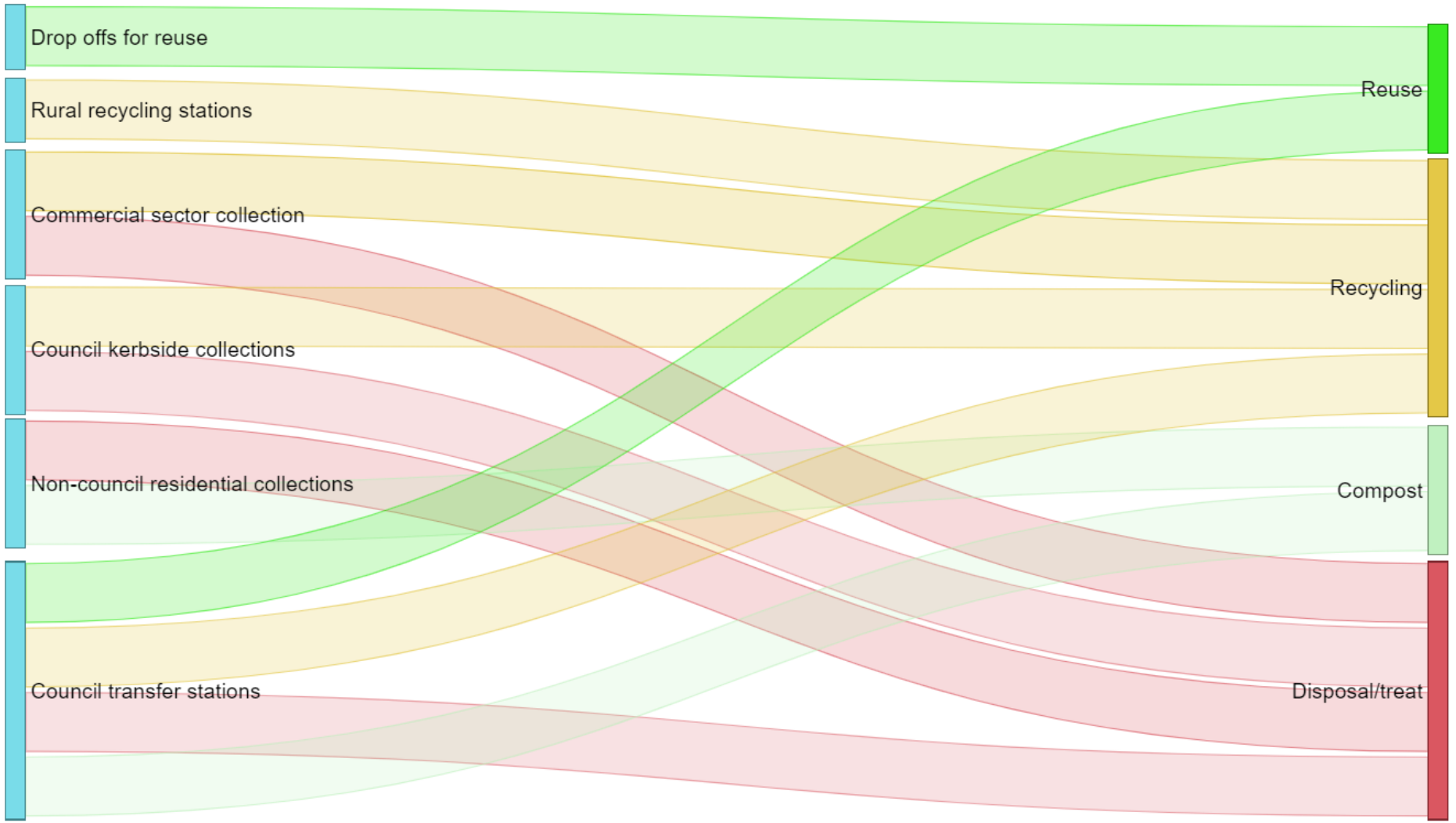

Figure 3.2 Overview of waste services and infrastructure, and material flows for Ahuriri Napier and Heretaunga Hastings

3.2 Waste services and infrastructure

A goal of *Te rautaki para | Waste strategy* is to have a comprehensive national network of facilities to support the collection and circular management of products and materials. Due to the small size and geographical spread of Aotearoa New Zealand, and our distance to international markets, effective and financially sustainable circular economy infrastructure can be a challenge. A combination of local infrastructure and services that connects into national networks for recovery is needed. This section summarises existing services and infrastructure in Heretaunga Hastings and Ahuriri Napier and identifies where there are challenges and opportunities for future circular economy solutions.

3.2.1 Collection Services

Waste and recycling collection services are provided by both the councils and by private contractors across Ahuriri Napier and Heretaunga Hastings.

Council kerbside collection services

An upgraded rates-funded kerbside collection service was introduced on 1 November 2019 for Ahuriri Napier and 1 July 2020 for Heretaunga Hastings[5]. Kerbside collections are administered under separate contracts for each council. The contractors for these services are noted Table 3.1.

Table 3.1: Kerbside collections contractors

Material	NCC	HDC
Rubbish	Waste Management Aotearoa New Zealand Ltd	JJ's Waste & Recycling Ltd
Recycling	Smart Environmental Ltd	

The services provide a 120 L (wheelie bin) weekly rubbish collection, and weekly 135 L recycling collection (three 45 L crates). The three recycling crates separately collect paper and cardboard, plastics, tins and cans, and glass. The glass is colour sorted at the kerbside. The partial sorting of recycling at kerbside ensures the collected recycling has minimal contamination by non-recyclable items and optimises the value of materials (glass and paper/cardboard).

Table 3.2: Collection services provided by HDC and NCC

Service	Bins	Collection frequency	Number of households serviced	
			HDC	NCC
Rubbish collection	120L bin	Weekly	22,200	26,800
Recycling collection	3 x 45L crates	Weekly	21,900	25,300

[5] Recycling only was introduced by NCC on this date with rubbish collections rolled out at a later date.

Before the current contract, a rubbish bag collection operated across both council areas. Hastings District Council partly funded the service with a rated charge per household eligible for collections. The rates charge funded the operation of the service, while a user pays charge per rubbish bag was applied to cover the cost of disposal. Napier City Council also operated a bagged rubbish collection service. However, the service was funded by rates entirely.

Rubbish collected from the kerbside services is disposed to Ōmarunui Landfill. The materials accepted for recycling at kerbside (listed in Table 3.3) are aligned with the national standards for recyclable materials. Paper and cardboard are taken directly to Hawk Group in Whakatū where it is reprocessed locally to make fruit trays. Plastics, cans and glass are transported to Smart Environmental's consolidation site in Whakatū. From here, glass is sent to Visy in Auckland, while plastics and cans are transported to one of Smart Environmental's material recovery facilities (MRFs) in Masterton or Kopu. No materials from kerbside collections are taken via the transfer station. However, the transfer stations may be used to store materials in unusual circumstances. The movement of materials and their end markets are summarised in Table 3.3.

Both councils offer their kerbside recycling collection services within defined collection areas. Hastings District Council services 22,200 households for rubbish and 21,900 for recycling, Napier City Council services 26,800 houses for rubbish and 25,300 households for recycling (Table 3.2). Napier City Council provides a kerbside recycling service for 100 per cent of households whereas Hastings services all urban settlements over 1,000 occupants.

The 120 L weekly rubbish wheelie bin collection services are provided for urban residential and central business districts (CBDs) in Heretaunga Hastings and Havelock North. No kerbside recycling services are provided for the Hastings or Havelock North CBDs. In Napier, collection services are provided for urban and rural residential addresses and some commercial addresses in the CBD and other shopping areas in the city that pay rates for kerbside collection.

Table 3.3: Materials collected for kerbside recycling and end markets

Accepted recyclables	End markets for materials
Paper and Cardboard	
Cardboard, pizza boxes, newspaper and magazines, office paper, envelopes, greeting cards.	Hawk Group, Hawke's Bay
Plastic bottles, trays and containers (numbered 1, 2, or 5).	
Kitchen, bathroom and laundry plastics numbered 1,2 & 5.	Smart Environmental MRFs (Masterton or Kopu) and sold to markets within Aotearoa New Zealand e.g. Comspec, Pact Group
Tins and cans	
Tin cans and aluminium cans.	Smart Environmental Masterton or Kopu MRFs (sold to international markets)
Glass bottles and jars	
Clear, brown, green, and blue glass bottles and jars.	Visy, Auckland

Private sector kerbside collection services

More than 10 private operators provide kerbside rubbish and/or greenwaste collection services to households across Napier city and Hastings district, with varying options for bin sizes and collection frequency. There is limited recycling collections offered to households.

The private sector also provides rubbish and recycling collection services to businesses in the CBD and other commercial and industrial customers including varying collection frequencies and sizes.

Market share

The market share for rubbish collection, shown in Figure 3.3, has been used as a proxy measure for community satisfaction with the council provided services compared to private services (based on tonnage disposed to landfill via each service). Market share reflects the number of households that choose to participate in a private collection service in addition to the rates funded council service available to them.

The market share for rubbish collections has changed over time (Figure 3.3). In 2007 the councils had a 78 per cent market share for kerbside rubbish collections. By 2019 (the final year of the councils' bagged collection services), the market share held by the councils had decreased to 27 per cent. The decrease over this time is likely a result of a change in price in council bags and private waste service providers selling convenience and bins with a larger capacity. Bins were also likely to be seen as an easier and cleaner option compared to using bags. The 73 per cent share of private collectors in 2019 suggests that there was significant demand for a larger collection capacity. With the introduction of the councils' rubbish and recycling services in 2020, council market share increased from 27 per cent to 61 per cent. While a portion of private collections will be from commercial customers, there are likely to be some residents opting to pay for larger rubbish bins than those offered by the councils.

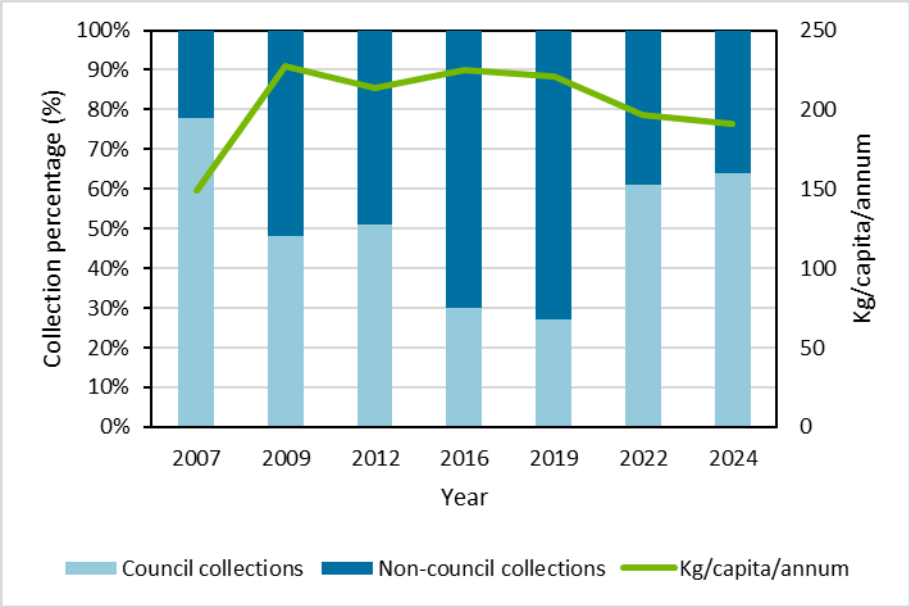

Figure 3.3: The market share of the councils and private rubbish collections that are disposed to Ōmarunui Landfill

3.2.2 Refuse transfer station infrastructure

The locations of waste infrastructure in Heretaunga Hastings and Ahuriri Napier are shown in Figure 3.4**.** Three refuse transfer stations (RTS) are distributed around Heretaunga Hastings and Ahuriri Napier's urban centres. Additionally, six rural recycling stations are dispersed across Heretaunga Hastings.

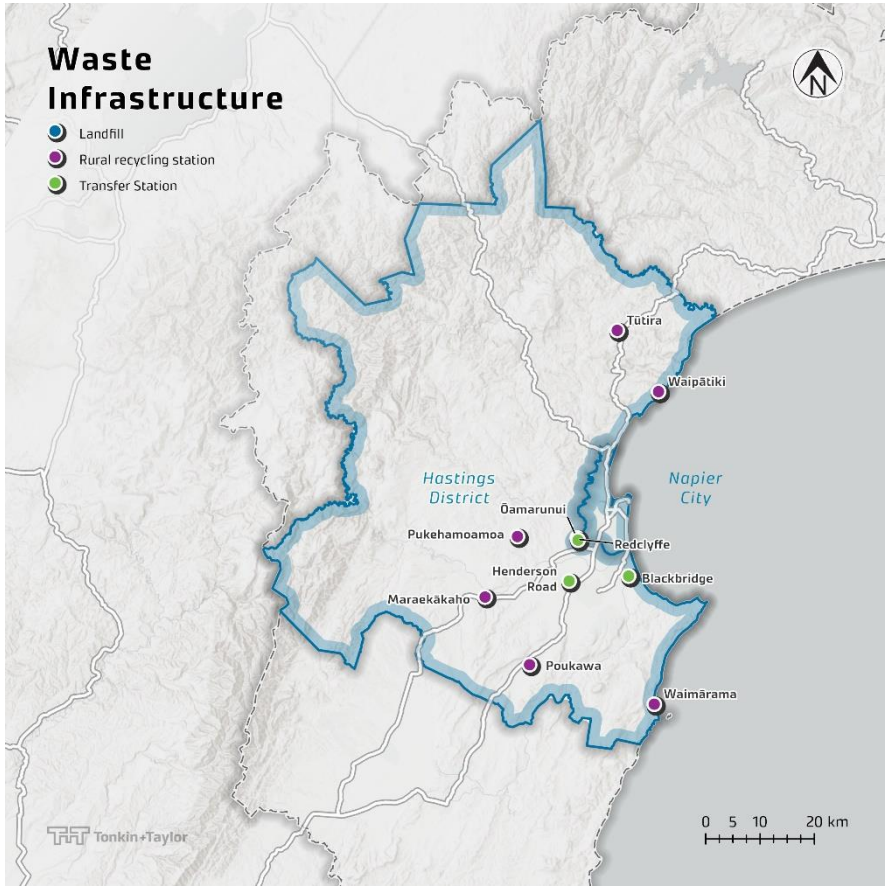

Figure 3.4: Key council-owned waste management assets

Rural recycling stations

Hastings District Council has set up recycling stations for rural communities that are outside of the kerbside collection zone. There are six rural recycling stations; Tūtira, Poukawa, Pukehamoamoa, Maraekākaho, Waimārama and Waipātiki.

The rural recycling stations are unmanned and are available seven days a week. They are operated in close collaboration with the community to ensure contamination and illegal dumping is managed. Community representatives report to the council when bins need servicing and also act as champions within each community to prevent dumping and the contamination of recycling.

Urban recycling stations

A recycling station was provided at Martin Place (Havelock North) until March 2020. The council undertook a health and safety review of the facility, with improvements planned, however, the lease on the site was terminated resulting in the removal of the recycling station. No suitable alternative sites have been identified.

Residents in Havelock North have access to the urban rubbish and recycling collection services and can use the nearby refuse transfer stations to dispose of additional materials or recyclables.

WM operated a 'hole in the wall' recycling drop-off centre at their facility in Austin Street, Onekawa, Napier. This was closed in October 2021 due to contamination issues.

Residents in Napier and Taradale have access to the urban rubbish and recycling collection services and can use the nearby refuse transfer stations to dispose of additional materials or recyclables.

Refuse transfer stations and resource recovery facilities

Three council-owned RTS are located in the area: two in Heretaunga Hastings (Henderson Road RTS and Blackbridge RTS) and one in Ahuriri Napier (Redclyffe RTS). Henderson Road RTS is operated by Hastings

District Council while Redclyffe RTS and Blackbridge RTS are operated by Bin Hire Co under contract to Napier City and Hastings District Councils respectively. The RTS accept rubbish and divertible material. Operational hours and materials accepted for collection are shown in Table 3.4.

Henderson Road RTS also has a reuse shop, helping to divert goods that can still be of use from landfill.

Table 3.4: The refuse transfer stations in HDC and NCC, the opening hours and accepted materials

Refuse transfer station	Hours	Accepted materials
Henderson Road	Monday – Saturday 7:45am – 4:30pm Sunday and public holidays 9:45am – 4:30pm Christmas Day, New Year's Day, Good Friday Closed	Accepted: Greenwaste, household waste, timber, whiteware, electronic recycling, tyres*, household recycling, gas bottles, scrap metal, household and car batteries, waste oil, quality second hand items, child car seats
Blackbridge	Thursday – Monday 7:30am – 4:45pm Tuesday –Wednesday, Christmas Day, New Year's Day and Good Friday Closed	Accepted: Greenwaste, household waste, timber, fridges and freezers, tyres*, household recycling, gas bottles, household and car batteries, scrap metal, waste oil
Redclyffe	Monday – Saturday 7:30am – 4:45pm Sunday and public holidays 9:00 am – 4:45 pm Christmas Day, New Year's Day, Good Friday Closed	Accepted: Greenwaste, household waste, timber, waste oil, fridges and freezers, household & car batteries, polystyrene & bulk packaging, tyres*, household, scrap metals, flat glass (registered trade customers only)

Note: * Limit of five tyres from the public only from 1 September 2024, once registration with Tyrewise is complete.

Rubbish and greenwaste are charged based on weight at the RTS (Table 3.5). Both the councils charge less for separated greenwaste, incentivising diversion of organic materials. Redclyffe RTS incentivises people to separate their greenwaste by providing a further discount on disposal prices ($6.90 as of the 1 July 2024).

Household recycling and scrap metal are accepted for free, while charges apply for child car seats and electronic recycling at Henderson Road RTS.

Table 3.5: Cost and type of waste at each of the transfer stations in HDC and NCC

Refuse transfer station	Type of waste	Pricing Incentives
Henderson Road	General rubbish $435 per tonne	$241.50 per tonne discount for separating greenwaste Standard recycling no charge
	Greenwaste $161 per tonne	
Blackbridge	General rubbish $390 per tonne	$275 per tonne discount for separating greenwaste Standard recycling – no charge
	Greenwaste $102 per tonne	
Redclyffe	General rubbish $396 per tonne	$211 discount for separating greenwaste Standard recycling - no charge
	Greenwaste $144 per tonne	

Note: charges from 2024/2025 financial year

At Redclyffe RTS, household recycling and scrap metal are accepted for free, while charges apply for polystyrene [6].

Napier City Council is undertaking a trial for recycling flat glass at Redclyffe RTS. Flat glass is dropped off into a concrete bunker and sent to 5R Solutions for recycling. Some issues with contamination of glass with stones from the pavement area have been noted. Timber is stored and periodically chipped on site at Redclyffe RTS. Stockpiles of chipped timber are sent to Golden Bay to be used as fuel for concrete manufacture.

All three transfer stations have weighbridges, enabling the required data collection and reporting of material volumes and activity categories to MfE as part of the councils' data reporting regulations.

Napier City Council has noted the deterioration of Redclyffe RTS infrastructure and improvements are required to meet best practice standards for safe and efficient waste handling. The RTS is also located on a closed landfill with a discharge consent, expiring in the next six years and the contract to operate the site expiring in the next three years. Council plans to review options for providing RTS services in Napier, including the feasibility of relocating or improving Redclyffe RTS.

With the potential of new materials to be managed and product stewardship schemes to be introduced as national policy and regulation progress, opportunities to enable the management of these at existing or any new facilities would contribute to progressing circular economy solutions. In addition, the potential for generating an effective resource recovery network or developing a hub for circular economy infrastructure could be considered as part of any future upgrades to future proof Napier city and Hastings District.

There are also three privately run facilities associated with aggregate drainage or earthworks services (Ministry for the Environment, 2024) (ACM Hastings and Napier, Awakeri Drainage Ltd in Hastings and Phoenix

[6] Separate charges for concrete only apply at Blackbridge RTS and Redclyffe RTS

Contracting, Hastings), and four silt and debris processing sites established as part of the cyclone recovery.

3.2.3 Other reuse and recycling services

There are a wide range of product stewardship, take back and recycling schemes available in Heretaunga Hastings and Ahuriri Napier. These range from regulated and voluntary product stewardship schemes to user pays recycling programmes.

Producers and retailers continue to innovate in taking responsibility for their products' environmental impact. This is a trend that is expected to accelerate as consumers and businesses demand more sustainable products and solutions, and government regulates product stewardship for harmful products. The availability of product life cycle analysis and environmental product declarations is also growing as businesses seek to better understand the impact of products they produce and purchase and meet carbon emission reduction goals.

On 1 March 2024, Aotearoa New Zealand's first regulated product stewardship scheme, Tyrewise, came into effect. Tyrewise will manage the environmental impact of end-of-life tyres helping to ensure these materials do not end up in landfill, stockpiled or dumped. The scheme requires all importers and retailers of tyres in Aotearoa New Zealand to be registered with Tyrewise. Collection sites, transporters and processors of end-of-life tyres also need to register, as well as manufacturers (end users) that wish to receive incentives. A tyre stewardship fee is charged on all new tyres, which funds end-of-life tyre management. From 1 September 2024 disposal fees can no longer be charged for end-of-life tyres on which the tyre stewardship fee has been paid. Transfer stations sites can apply to be registered as collection sites under the scheme, with costs associated with handling fees and free collection covered by the scheme.

Electronic waste (e-waste) is another of the six priority products declared by the Minister for the Environment in July 2020. The development of the mandatory product stewardship scheme for e-waste is underway. In the interim, e-waste from households and small businesses is accepted at a number of locations, including Noel Leaming in Napier which accepts selected e-waste free of charge as part of the TechCollect NZ voluntary product stewardship scheme. Warehouse Stationery also accepts small volumes of selected e-waste from households and small businesses, while Bunnings offer free household and power tool battery recycling. User pays e-waste recycling is available at Henderson Road RTS.

The Soft Plastic Recycling Scheme is a voluntary product stewardship scheme operated by the Packaging Forum. Funded by members (brands, manufacturers, retailers and service providers) it aims to find end-of-life solutions for soft plastic packaging. Soft plastic can be dropped off at participating supermarkets and other stores, where it is baled and transported to processing facilities such as Future Post and saveBOARD. Soft plastics will be part of the regulated product stewardship scheme for plastics which is in development.

Paint and packaging take back is provided by Resene (through their PaintWise programme), Dulux and Wattyl for households and the commercial sector. The initiatives are funded by product stewardship fees paid on new paint purchases. Packaging and solvents are recycled, while unwanted paint is donated to community groups and to councils for graffiti abatement. Research and development into reuse options for old paint continues, alongside the development of a nationwide paint and packaging scheme. Plastic paint packaging is also included in the July 2020 priority product declaration.

Sustainable HB provide specialist recycling for a number of products, including bottle lids and caps, batteries, coffee pods and dental hygiene products. They have also received a waste minimisation grant for a wash

trailer that will help to minimise single use products at future events in Heretaunga Hastings and Ahuriri Napier.

Both Hastings District and Napier City Councils supported the introduction of Again Again a reuseable cup scheme offered through cafes. Customers pay a deposit to borrow a cup, which they can keep, reuse or swap for a clean cup at participating cafes. Uptake has been limited due to the Covid pandemic.

Napier City Council, in collaboration Keep Napier Beautiful, operates an annual Recycling Day, where residents have the opportunity to drop reusable items off for free or purchase items for a donation. Funds raised by this event support grants to enhance the beautification of Napier. Any items remaining at the end of the day are collected and donated to charity where possible or landfilled.

A wide range of second-hand stores, charities and building recyclers throughout Ahuriri Napier and Heretaunga Hastings operate to keep products and materials in use, supporting the development of a local circular economy. Not-for-profit charity, Re-Source (Flaxmere), works closely with agencies to support community needs through the innovative reuse and repurposing of products and materials. Love Link (Napier) also support people referred to them through agencies with donations of household items.

Food rescue in Te Matau a Māui Hawke's Bay is spearheaded by Nourished for Nil, a local non-profit organisation that rescues food from donors and distributes it to the community. Started in 2017 in Hastings, the organisation now has four branches (Hastings, Napier, Flaxmere and Camberley) and has opened a social supermarket (Napier). The organisation rescues nearly 1,000 tonnes of food waste annually and supports over 80,000 families.

3.2.4 Disposal infrastructure

Landfills (Class 1)

Ōmarunui Landfill is the only Class 1 landfill in Heretaunga Hastings and Ahuriri Napier. The landfill is owned jointly by the councils (63.68 per cent in HDC, 36.32 per cent in NCC). The operations of Ōmarunui Landfill are administered by Hastings District Council. The landfill is operational from Monday to Friday 8am – 4:30pm, and Saturday 8am-12pm, accepting waste from council provided services and commercial operators/contractors with an Ōmarunui Landfill Waste Disposal License.

The landfill also accepts special waste that may require additional disposal controls:

- Bulk construction/demolition material
- Dust-type wastes
- Certain hazardous wastes
- Putrescible and odorous waste (e.g. animal skins).

In the previous Joint WMMP, the limited future capacity of the landfill was identified and a detailed assessment of options for future waste disposal was completed in 2018 (Jacobs, 2018). The recommended option was to extend the landfill to increase capacity. A new landfill cell is currently being constructed adjacent to the current landfill area that will provide 3 million m^3 of airspace, equivalent to approximately 3 million tonnes of landfill capacity which the council expects to be sufficient for the next 30 years. The current landfill has a gas collection system comprising of 30 gas extraction wells in place across the landfill (Hastings District Council, 2024). The collected gas is treated and then used to generate 1 megawatt electricity sufficient for around the equivalent of 1,000 homes. Any remaining gas is flared off.

The landfill currently accepts waste from within the councils' boundaries. While the development of the new landfill area ensures a reliable waste disposal option for the foreseeable future, as illustrated by Cyclone Gabrielle the quantity of waste requiring disposal can increase as a result of events outside the councils' control. There is also potential for alternative disposal options (new locations, technologies and solutions) to emerge over the lifetime of the new area. A watching brief should be maintained on opportunities in this space to ensure future opportunities for diversion are identified.

Landfills (Class 2-5)

MfE waste facilities data shows there are 13 privately owned Class 2-5 landfills in the Hastings district (Ministry for the Environment, 2024). In 2024, Phoenix Contracting upgraded the cleanfill to a construction and demolition fill (Class 2) on Middle Road, Havelock North, with a capacity of over 200,000 m^3.

There are two managed fills (Class 3 & 4) which dispose of inert waste material from construction and demolition activities or earthworks but only one (Puketapu Road Cleanfill) is open to the public. There is also an industrial monofill (which accepts waste from a single industrial process) at Pan Pac Forest Products in Whirinaki. Ōmarunui Landfill does not receive large volumes of soil.

The sustainable management of unwanted soils is a key focus of the *Te rautaki para | Waste strategy*. Currently, large volumes of soil are disposed to landfills around Aotearoa New Zealand as waste during development projects, or when contaminated land is managed and remediated (Ministry for the Environment, 2023). There is an increased focus on recognising the inherent value of soils and reducing the volume of soils ending up in landfill.

Closed landfills

There are four closed landfills located in Heretaunga Hastings and eight in Ahuriri Napier (shown in Figure 3.5). Of the eight closed landfills in Napier, five closed prior or during 1960, with the rest closing before 1969. The four sites in Heretaunga Hastings have mandatory resource consents that are set to expire between 2034 and 2037. In Ahuriri Napier, seven locations have mandatory resource consents that will expire on 31 May 2031.

Figure 3.5: The location of closed landfills in HDC and NCC

3.2.5 Processing infrastructure

Recyclable material and organic waste captured through collections or transfer stations is either processed locally or sent to processing facilities outside the region, and internationally. Local circular solutions supporting the strong horticultural sector in the region include recycling of paper and cardboard and composting of organic waste.

Hawk Group produces moulded paper/cardboard packaging solutions (fruit trays) from recycled paper and cardboard. They are ideally located to support the local horticultural sector, and accept paper and cardboard from the councils' collections, transfer and recycling stations, as well as sourcing recycling paper and cardboard from elsewhere in Aotearoa New Zealand.

BioRich captures organic material for composting at two local sites at Maraekakaho (Heretaunga Hastings) and Awatoto (Ahuriri Napier). The compost is made from a mixture of animal manures, fish waste, paunch grass from abattoirs, waste from food and petfood manufacturers, fruit waste from packhouses, grape waste from wineries, bark, sawdust and green waste. A number of compost, soil and mulch products are sold.

Pan Pac Forest Products operate in Whirinaki, north of Napier, manufacturing pulp and lumber from their forestry. Manufacturing is energy intensive and historically Pan Pac used two biofuel boilers using waste bark, sawdust, shavings, chip fines and wastewater solids. Damage to the facility during Cyclone Gabrielle in 2023 has meant that Pan Pac is no longer able to accept wood waste for their boilers from external suppliers. At the time of writing, the Whirinaki Pulpmill was temporarily closed due to extremely high energy prices. However, the lumber and forests business units remain operational.

Other recycling material is sent out of the region to be processed, with plastics recycled at Comspec or Pact Group and glass recycled at Visy in

Auckland. Tins (light scrap metal) and cans (aluminium scrap) are sent to international recycling markets.

3.2.6 Public litter bins and illegal dumping

Public litter bins are located around the Napier and Hastings CBD's, Havelock North and Taradale. Litter bins are also provided at sports parks, reserves, outside corner dairies and in some designated tourist spots that are not in the councils' CBDs. Litter bins are funded from general rates and serviced on a daily basis by the councils.

Where rubbish is not disposed of properly in a public place i.e. illegally dumped, the councils clear the material when reported and can take enforcement action where there is sufficient evidence to identify the persons involved.

3.2.7 Hazardous waste services

A free household hazardous waste service, HazMobile, has been provided by the councils. The annual service is scheduled at a designated drop off location (usually the Regional Sports Park). The service does not accept commercial hazardous waste, ammunition, medical or electronic waste. Accepted materials include:

- Paints, solvents and paint strippers
- Wood preservatives
- Glues and resins
- All types of garden chemicals, including pesticides, herbicides and fertilisers
- Petrol, oil and diesel
- Car care products
- All types of cleaners including toilet and drain cleaners, oven cleaners, bleaches and disinfectants
- Pool chemicals
- Furniture/shoe polish
- Lead-acid car and boat batteries and tool and household rechargeable batteries
- Gas cylinders.

Agricultural and horticultural chemical collection services are provided on a regional basis by Agrecovery Rural Recycling. Farmers and growers must register with the programme to access the event-based collection service. Some chemicals are funded, others are user pays, depending on the brand of the product.

ChemCollect (3R Group) is a commercial service also available across Ahuriri Napier and Heretaunga Hastings.

3.2.8 Construction and demolition waste services

The councils do not provide any construction or demolition waste collection services. However, separated timber is accepted at all three RTS. A flat glass collection hub has recently been established at Redclyffe RTS. Multiple commercial waste companies provide a construction and demolition waste collection service. The collected waste is treated in the same manner as all general waste and is landfilled. Bin Hire Co offer a construction and demolition recycling diversion service and have established a materials recovery facility (MRF) with MfE funding.

The councils have jointly employed a Regional Construction and Demolition Waste Minimisation Advisor to help assist in educating the sector about best practise.

Hastings District Council has received funding from the Waste Minimisation Fund, administered by MfE, for improved construction and demolition waste diversion at Henderson Road RTS. The new infrastructure will be open by the middle of October 2024 with the

objective of increased and ongoing diversion which should capture building waste, waste from new construction and deconstruction activity, DIY and light commercial projects. Materials accepted will be timber (treated and untreated), HDPE and PVC piping and flat glass.

3.3 Education and behaviour change

A key component of the *Te rautaki para | Waste strategy* is ensuring we all take responsibility for how we produce, manage and dispose of things. The strategy notes that to make circular approaches the norm, we need to run long-term programmes that address the barriers to adopting sustainable behaviours, and enable and encourage individuals, households and businesses to take action to prevent waste. This involves more than giving people clear information; we must invest in substantial behaviour change initiatives.

To achieve this, collaboration and engagement is a priority at national, regional and local levels alongside public reporting to increase transparency and accountability.

3.3.1 Collaboration

The councils have a history of collaboration at multiple levels from governance and policy, provision of infrastructure and services, and through education programmes. This has been an important action in the WMMP and will continue to be in the future, with the focus of councils on effective and efficient service delivery.

The implementation of the WMMP is the responsibility of the Joint Waste Futures Committee, a committee made up of three elected members from each of Napier City Council and Hastings District Council. The Joint Waste Futures Project Steering Committee provides governance to a range of programmes and interventions to achieve effective and efficient waste management and minimisation within the Ōmarunui Landfill catchment. A joint committee also oversees the management of Ōmarunui Landfill, which is jointly owned by Napier City Council and Hastings District Council.

The councils regularly collaborate to deliver education and behaviour change programmes, and jointly fund a construction and demolition waste advisor to specifically focus on change in this sector.

The councils are actively involved in national initiatives and campaigns through the Waste Management Institute of New Zealand sector groups and contribute to the national Territorial Authority Forum including collaborative funding. This has local benefits through learning from others in the sector and having a collective voice for local government perspectives in national policy development.

3.3.2 Council provided services

The previous joint WMMP identified a number of behaviour-change related actions for:

- Managing organic waste at home and within industry
- Supporting waste minimisation through funding and community support, collaboration with stakeholders and incentives
- Providing guidance to business and industry to reduce waste and improve resource efficiency
- Supporting healthcare establishments to appropriately manage their waste
- Advocating and supporting zero waste events and
- Empowering residents through education programmes.

These goals and actions in the Joint Waste Management and Minimisation Plan have been a key focus for the councils. Education initiatives are in place to encourage avoidance and reduction of waste,

encouraging behaviours that are higher up the waste hierarchy. Education has also been used to ensure that the councils' infrastructure and services are used appropriately, and reduction and diversion of waste is encouraged.

With the national standardisation of kerbside recycling collected, there is also opportunity to build on or maximise national collateral and campaigns within the local community. The councils have also been working to build awareness around food waste through national campaigns such as Love Food Hate Waste.

Since the last WMMP, there has been significant progress with education and behaviour change programmes (Table 3.6) through an increased capacity to deliver programmes, particularly in the Hastings district. There has also been increasing awareness in the community around waste, litter, and climate change, although this has been impacted by the pandemic (2020-2022), Cyclone Gabrielle (2023) and the ongoing cost-of-living crisis.

A dedicated education space – Te Whare Mukupara – was established at Ōmarunui Landfill in 2023. Te Whare Mukupara, its name gifted by local kaumatua Tamati Cairns, is the only waste education centre in Aotearoa New Zealand to be built within an operational landfill. Te Whare Mukupara was built using close to 80 per cent diverted materials and is a designated space where schools, community groups, businesses, sector groups and more can visit to learn about Ōmarunui Landfill and ways to reduce the amount of waste coming to landfill.

Hastings District Council have a community waste minimisation fund, providing financial assistance to local waste minimisation initiatives that contribute to achieving the goals outlined in the Waste Management and Minimisation Plan. This fund has a total pool of $150,000 available per year, an increase from $40,000 due to additional waste levy funds received. Recent recipients include Ātea a Rangi Education Trust (to hire reusable plates and cutlery for the 2024 Matariki celebration) and Repair Café (initial set up and promotion of events in 2023). Napier are in the process of setting up a waste minimisation fund.

Table 3.6: Number of people engaged with face to face on waste minimisation in Heretaunga Hastings and Ahuriri Napier

Financial year	Number of people engaged	Key activities/focus
2020/2021	1148	Kerbside level of service change
2021/2022	155	Covid-19 Pandemic
2022/2023	924	Reducing waste, Cyclone Gabrielle
2023/2024	3769	Food scraps, recycling, commercial waste

Schools and community

The core focus of education is through engagement with schools and the wider community including women's centres and other groups. Examples of initiatives are educational tours of Henderson Road and Redclyffe RTS and Ōmarunui Landfill, waste minimisation talks, Home and Living Shows (three), how recycling works and reducing plastic workshops, and Waste Awareness Newsletters. These engagements are effective in educating people how to reduce waste and correctly dispose of it. The councils have also engaged a provider to develop content for an Ōmarunui Landfill regional waste minimisation education programme for schools in line with the national curriculum.

Hastings District Council supports waste reduction at local events with information for event organisers and by providing waste recycling bins that can be hired for community events (Figure 3.6).

Figure 3.6: Event waste bins provided by HDC

For the past three years, the councils have also supported Enviroschools, a broader sustainability programme delivered through Hawke's Bay Regional Council, but this funding will not be continuing.

Existing collateral on waste minimisation and circular activity education include:

- Waste A-Z guide on the councils' websites
- Composting workshops
- Again Again (reusable coffee cup scheme)
- Waste minimisation newsletter
- Home shows
- Op shop map.

Industry (commercial and industrial)

The councils also seek to influence circular approaches to waste reduction in the commercial sector through a number of initiatives, primarily Sustainable is Attainable HB and the Construction & Demolition Focus Group.

Sustainable is Attainable is an initiative to support and promote waste reduction and better utilisation of by-products in the primary production sector. The programme started in South Canterbury under the banner of Venture Timaru, the district's economic and visitor agency. Hawke's Bay was the second region to adopt it in August 2021 with support from Hawke's Bays' 5 councils and 30 local producers and food processors. Early projects included plastic pallet wrap and strapping, label backing and apple pomace, with a number of other challenges and opportunities earmarked for further exploration. The programme combines the expertise of commercial, council and research/academic organisations to work towards a circular economy for our primary producers.

Waste at Work is another council initiative that provides information and support to businesses, including face-to-face meetings, events and resources about waste audits and minimising waste at work.

Construction and demolition

The councils support a Regional Construction and Demolition Waste Minimisation Advisor to work closely with the construction sector to reduce waste on building projects. Key activities have included:

- Heretaunga house deconstruction
- Tradie breakfasts
- Establishment of a focus group
- Flat glass recycling.

3.3.3 Non-council education services

There are non-council services provided that are in place to initiate education and behaviour change.

Para Kore is a te ao Māori, zero waste education programme. The programmes on offer aim to design out waste and strengthen the connection to Papatūānuku and Ranginuku. Para Kore Kaiarahi provided these programmes through wānanga up until late 2023. Due to funding cuts from central government, Para Kore are looking at other ways to deliver their kaupapa. Hastings District Council is having conversations with Para Kore about licensing opportunities.

Sustainable HB is another non-council service that has a vision of building a resilient community with strong regenerative food systems, biodiversity, and a circular economy within the Hawke's Bay. Sustainable HB also offers a waste warriors service for event waste minimisation.

Repair Café Napier and Hastings are separate groups operating once a month. Napier's Repair Cafe is on the last Saturday of each month, and Hastings the second Sunday of the month. They offer repairs for clothing and textiles, bicycles, jewellery, general items and toys, small appliances, and computers. It is part of a national movement managed by Repair Café Aotearoa New Zealand (**RCANZ**) which established in 2020. RCANZ supports existing repair cafés across the country with promotions, advocacy, and capacity building to amplify the impacts of repair for local communities. RCANZ also supports the growth of the network across the country.

3.4 Material quantities and composition

The change in waste material quantities and composition can provide useful insights into how effective current waste initiatives are, as well as provide information on future opportunities to reduce and divert waste from landfill. Waste data for the last eight years is presented in the following sections by service type (collections, RTS's and resource recovery facilities, and landfill), for the individual councils and commercial service providers, and consolidated data across both councils.

3.4.1 Kerbside collection quantities and composition

Kerbside quantities (rubbish and recycling)

There was an increase in rubbish collected by the councils in 2020 following the introduction of wheelie bins for this service (Figure 3.7). While the quantity of rubbish collected by the councils increased this was related to a shift in market share from predominately private collection services to the councils' collection services rather than an actual increase in rubbish disposal by residents (Figure 3.7).

When privately collected rubbish volumes are also included (Figure 3.7**)** the total amount of kerbside collected rubbish has remained relatively stable over time, despite a growing population. Overall, on a per capita basis, rubbish collected at kerbside (from the councils and private collections) is showing a stable trend over time (Figure 3.3), suggesting the service and supporting behaviour change programmes are effective in supporting residents to reduce and divert waste from landfill.

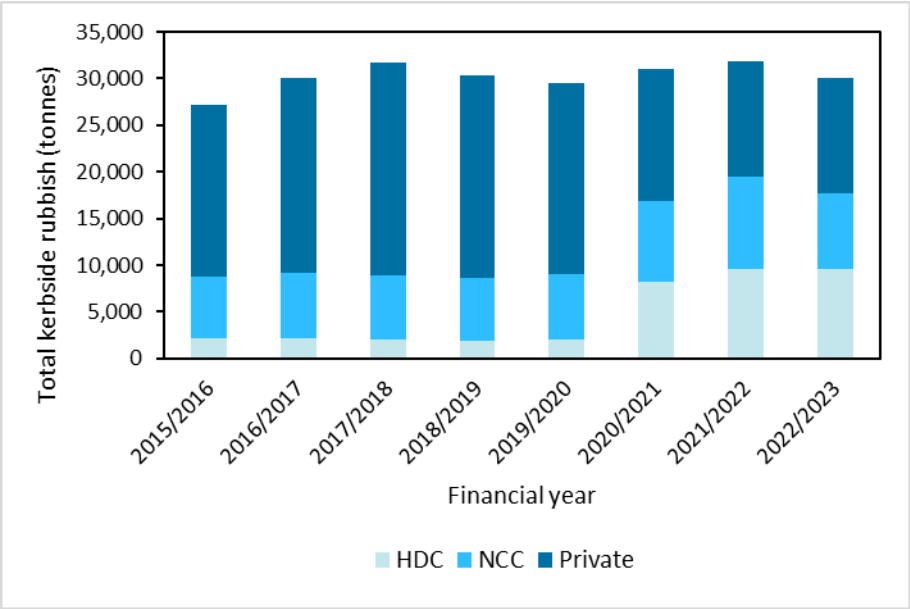

Figure 3.7: The total amount of kerbside collected rubbish from NCC, HDC and private collections

Recycling quantities collected at kerbside have been relatively constant over time with residents across the two councils recycling similar quantities (Figure 3.8).

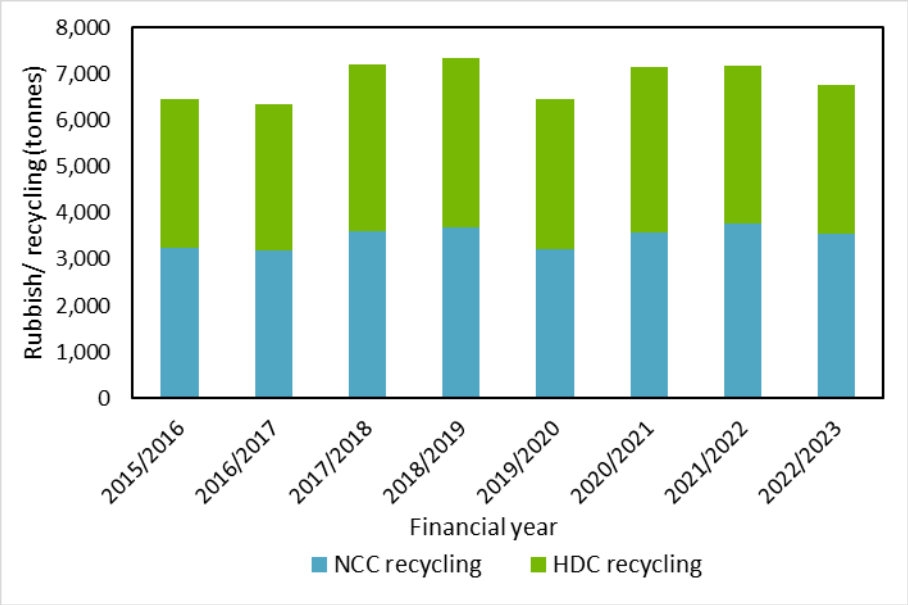

Figure 3.8: Annual kerbside recycling quantities from HDC and NCC

Kerbside rubbish composition

Rubbish bags and bins have been audited[7] on a regular basis to monitor changes in composition over time (Waste Not Consulting, 2016; 2019; 2022; 2024). The audits involve a brief targeted survey at a point in time (i.e. one week) using a subset of bins or bags from the kerbside and provide data that is indicative only. Where the data suggests there may be differences between Ahuriri Napier and Heretaunga Hastings communities, these may not be statistically significant.

In the most recent audit of kerbside rubbish bins in 2024, organic material (55 per cent in Ahuriri Napier and 47 per cent in Heretaunga Hastings) made up the greatest portion of rubbish for both Ahuriri Napier and Heretaunga Hastings residents (Figure 3.9 and Figure 3.10). While paper, cardboard, glass and metals made up between 24 per cent and 28 per cent of the kerbside rubbish, only 12 per cent was potentially recyclable.

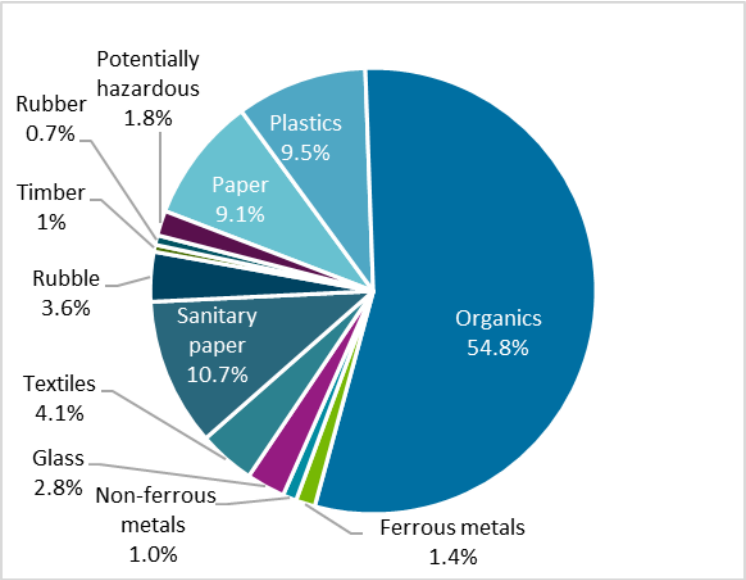

Figure 3.9 Typical composition of a 120L kerbside rubbish bin for NCC in 2024

[7] Using the Solid Waste Analysis Protocol (SWAP).

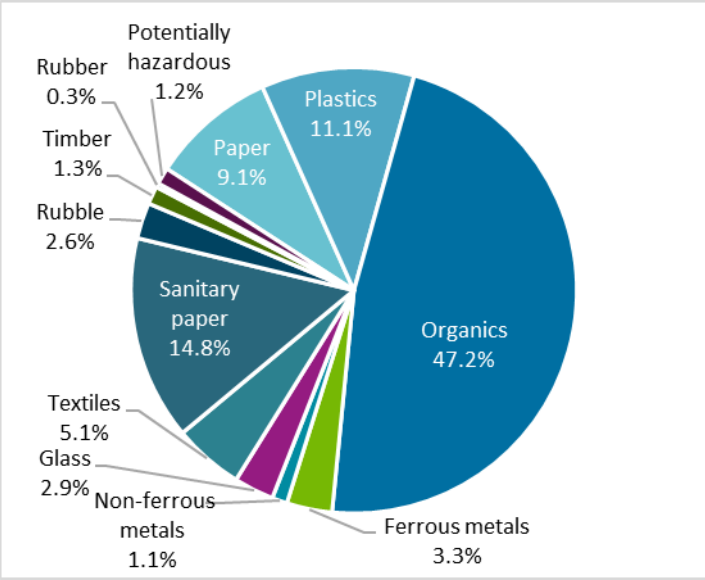

Figure 3.10 Typical composition of a 120L rubbish bin for HDC in 2024

Noting the change from user pays bags to rates funded 120L rubbish wheelie bins between the 2019 and 2022 Solid Waste Analysis Protocol **(SWAP)** audits, the change in composition percentage has changed for most materials between 2016 and 2024. There has been a decrease in plastics, organics and rubble for Hastings District (Figure 3.11) and a decrease in paper and organics in Napier city (Figure 3.12). In Ahuriri Napier, the change from bags to bins likely influenced an increase in rubble, timber and glass (Figure 3.12) as bins allow these materials to be disposed of more easily at the kerbside.

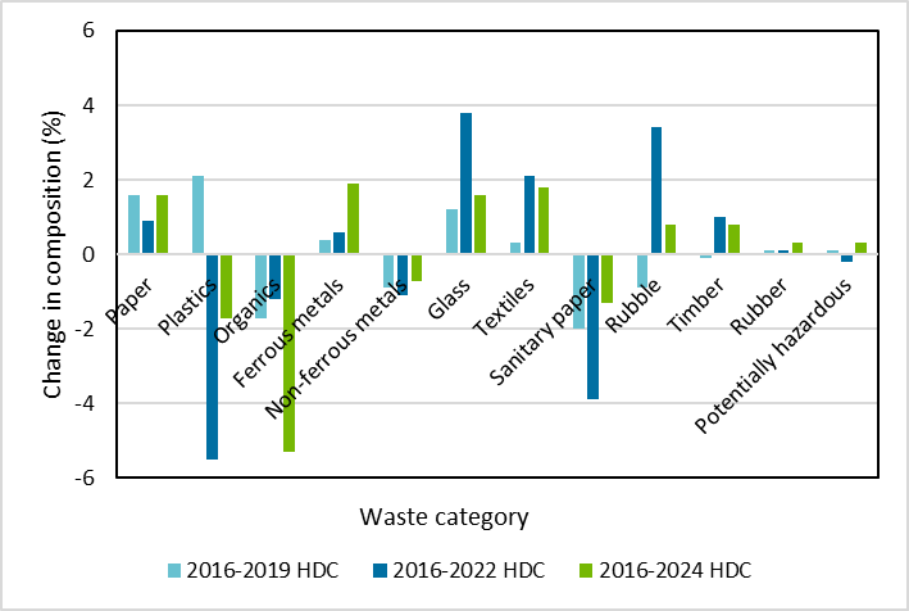

Figure 3.11: Change in quantity of different materials within a kerbside rubbish bag/bin for HDC

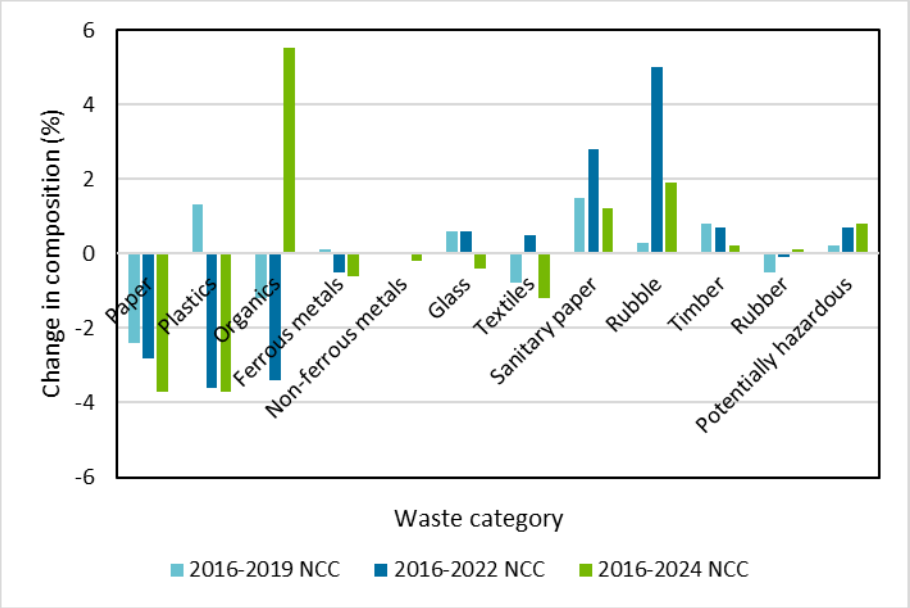

Figure 3.12: Change in quantity of different materials in kerbside rubbish bags/bins for NCC

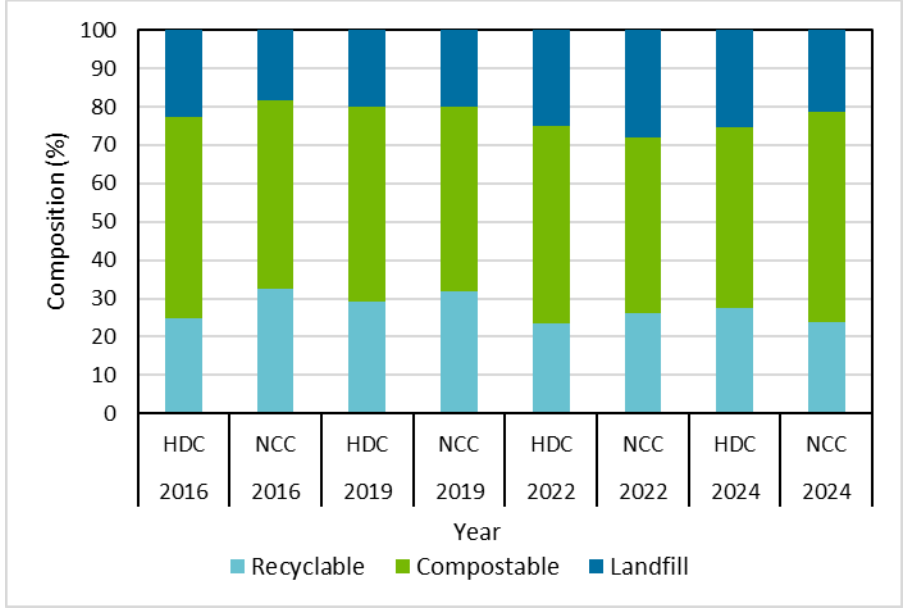

Figure 3.13: Change in portion of rubbish bags or bins that is potentially divertible (recyclable or compostable) for NCC and HDC since 2016

In 2024, about 75 per cent of waste disposed of in the rubbish wheelie bin could potentially be diverted to recycling or composting for the councils (Figure 3.13). The portion of recyclable material present in rubbish bins has remained the same or reduced over time indicating waste minimisation education initiatives may be having an impact. Organic waste continues to make up a significant portion (47 per cent or more) of rubbish bins across both councils with the majority made up of food waste. There is an opportunity to capture more compostable materials through the expansion of organic collection services in some form.

In considering what can be practically captured for composting through a collection service, it should be noted that a portion of the potentially divertible materials available from a household will likely still be disposed of through the rubbish collection. The effectiveness of capturing this material through waste services is discussed more in Section 4.

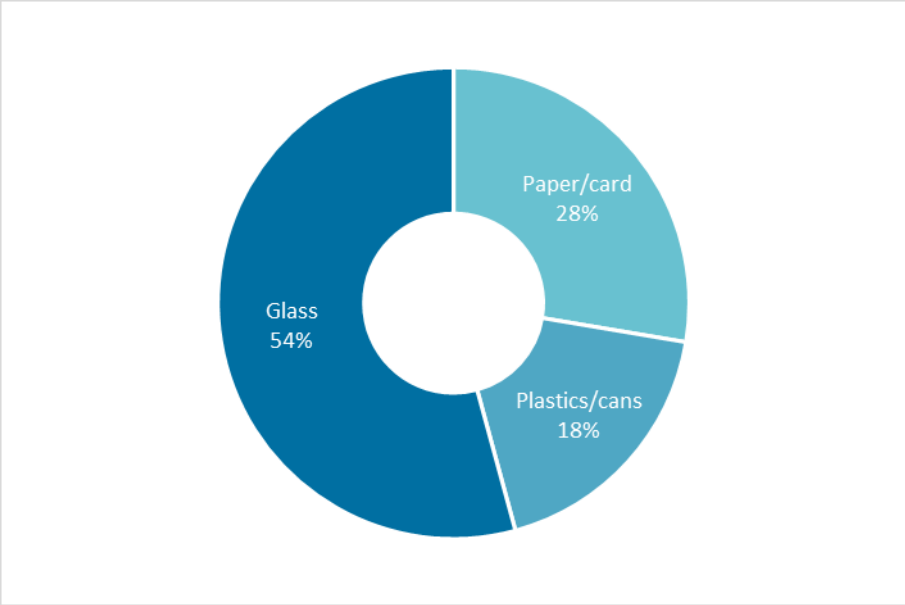

Figure 3.14: Composition of HDC kerbside recycling collected in 2022/2023

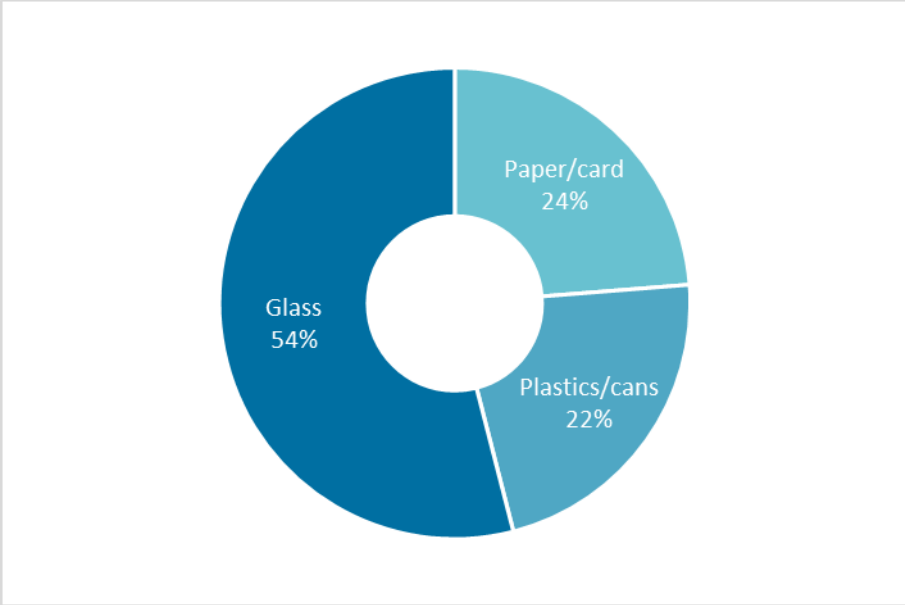

Figure 3.15: Composition of NCC kerbside recycling collected in 2022/2023

Kerbside recycling composition

Glass understandably forms the greatest portion by weight of recycling collected from kerbside across the council areas (Figure 3.14 and Figure 3.15), and Heretaunga Hastings residents generally recycle a greater proportion of paper and cardboard compared to Ahuriri Napier. However, the amount of paper and cardboard being recycled appears to have decreased over time with glass and plastics/cans increasing over the last 5-6 years, perhaps reflecting the more digital environment reducing paper use, and a change in beverage packaging (more ready to drink mixes in cans and glass).

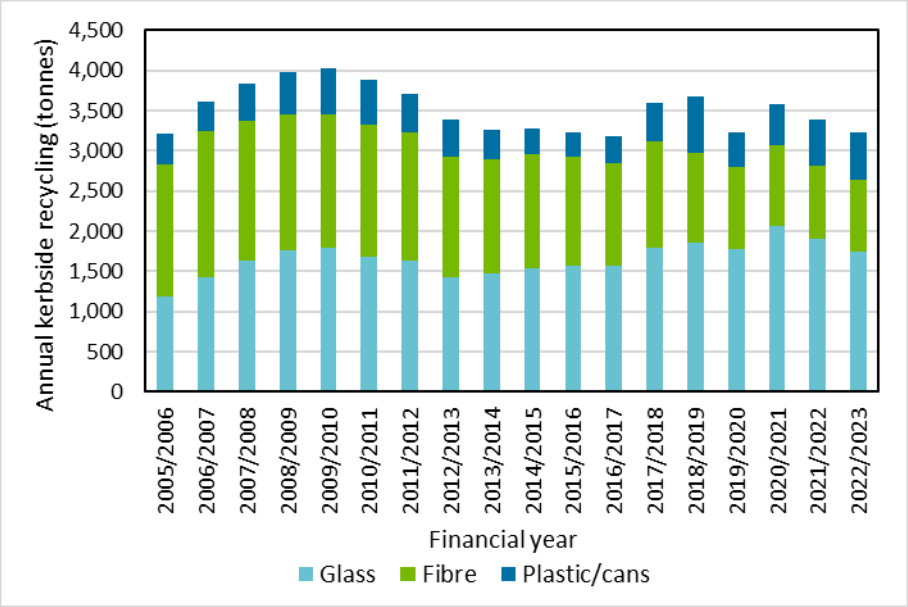

Figure 3.16: Annual tonnage and composition of recycling collected from HDC (NCC data not available)

3.4.2 Transfer stations

Transfer station material quantities

The amount of rubbish disposed to Ōmarunui Landfill from the three local RTS is shown in Figure 3.17. As expected, Henderson Road RTS handles the largest volume of waste followed by Redclyffe RTS. There has been a decreasing trend in rubbish volumes passing through RTS since 2016/2017, particularly at Henderson Road RTS. The reduction reflects a drop in use of RTS by kerbside collectors and commercial customers (which are now going straight to landfill). However, rubbish at Redclyffe RTS increased in 2022/2023, most likely due to disposal of flood waste associated with Cyclone Gabrielle[8]. A peak in rubbish disposal in 2021 at Redclyffe RTS can also be associated with disposal of flood waste from the November 2020 Napier flood event (estimated to be approximately 4,000 tonnes).

Blackbridge RTS did not have any rubbish recorded from 2019/2020 to 2021/2022 financial years due to a change in contract during that time and all rubbish was recorded as private contractor waste. The increase in waste volumes at the Blackbridge RTS in 2022/2023 can be attributed to the site opening hours increasing to 5 days per week, from 3 days, and an allowance for commercial loads.

[8] While most flood waste was recorded separately following Cyclone Gabrielle, some may have been recorded as normal rubbish – estimated 2,000 tonnes.

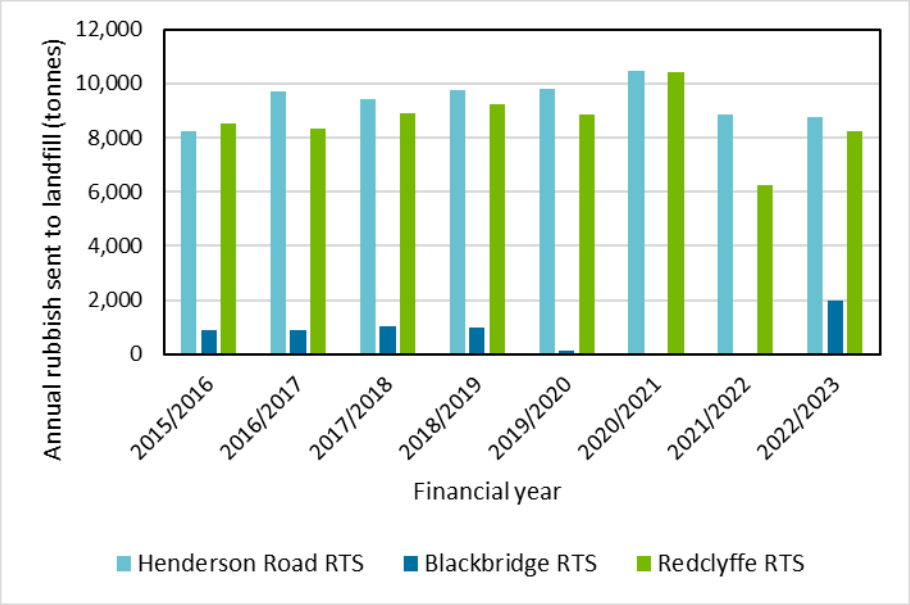

Figure 3.17: Annual rubbish from RTS disposed to Ōmarunui Landfill

Diverted material quantities have increased over time at Blackbridge RTS and Henderson Road RTS (Figure 3.19), likely a result of the Martin Place Recycling Station closing in March 2020. Increasing volumes at rural recycling stations in 2017/2018 and 2018/2019 was due to the establishment of Pukehamoamoa and Maraekakaho rural recycling stations (Figure 3.19). This meant that residents have previously had to drop recycling at other nearby locations. Recycling at Henderson Road RTS decreased significantly between 2019 and 2020, before increasing again in 2022 and 2023. The decrease in 2020 is most likely associated with pandemic (Covid) lockdowns and recycling markets (international markets for paper and plastics were significantly reduced in 2018 when China placed tight restrictions on what was imported for recycling - the China National Sword policy. This significantly impacted what could be recycled and also the public perception of what was actually recycled). In May 2019 Hastings District Council reduced plastic recycling from resin identification codes 1-7 to 1-2, adding 5 back in March 2022. Napier City Council made similar changes.

There is limited data on diverted material for Redclyffe RTS due to changes in site operators prior to 2022/2023 and how waste data was recorded. The current contractor operating the site actively diverts material, records it and reports on it, resulting in only data from 2022/2023 being available. The data on diverted material at Redclyffe RTS is inaccurate (Figure 3.18). This is partly due to Cyclone Gabrielle causing damage to weighbridge software, and some data being lost.

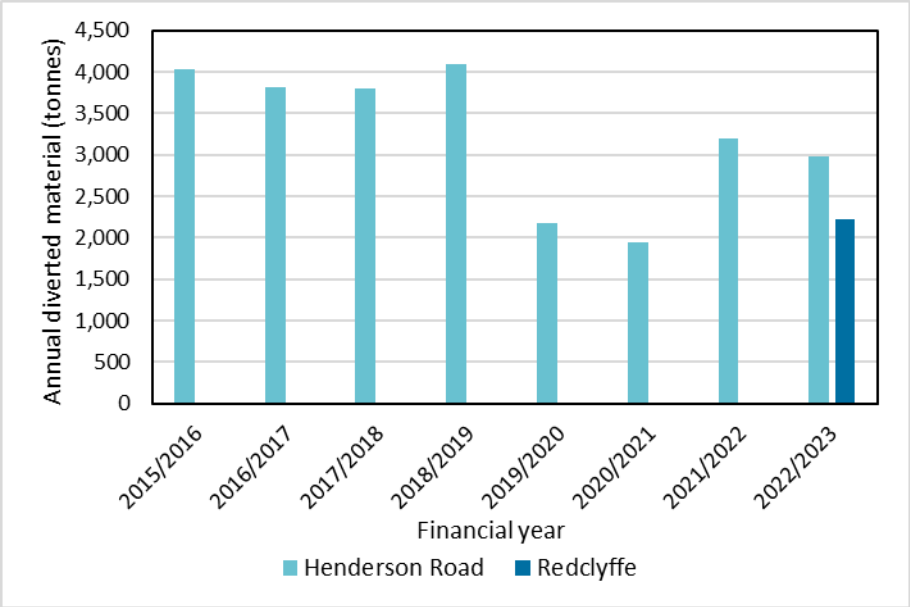

Figure 3.18: Annual quantity of diverted materials from Henderson Road RTS and Redclyffe RTS

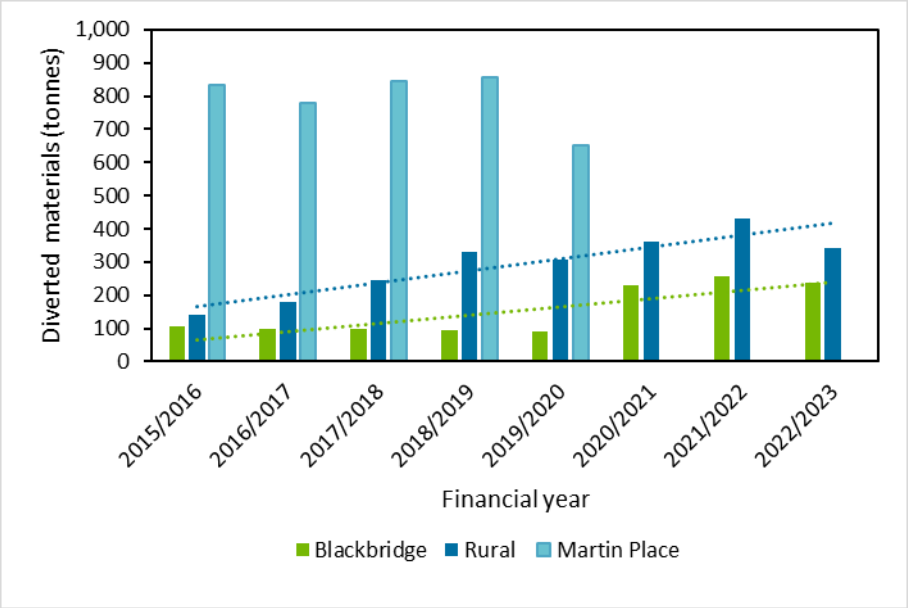

Figure 3.19: Annual quantity of diverted materials from Recycling Stations and Blackbridge RTS

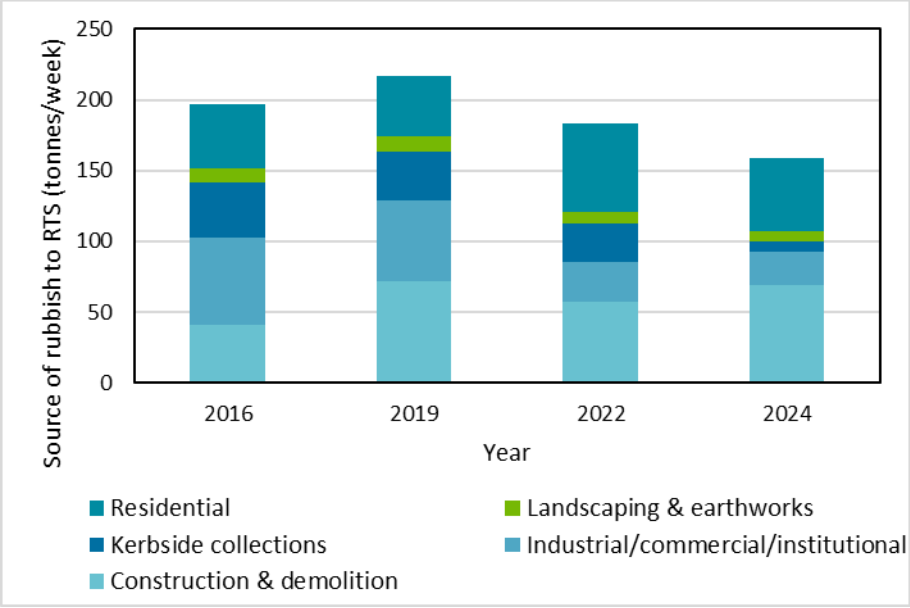

Figure 3.20: Source of rubbish at Henderson Road RTS

Sources of transfer station rubbish

The main source of rubbish dropped at the Henderson Road RTS in 2024 was from residents and construction and demolition activities (Figure 3.20). The overall decrease in rubbish going to Henderson Road RTS between 2022 and 2024 was associated with less residential and kerbside collections, and since 2019, there has been less industrial/commercial/institutional waste (likely going direct to landfill).

Rubbish going to Redclyffe RTS is predominantly from C+D, and residential sources (Figure 3.21). This has been the trend since 2019, with both C+D, and residential waste remaining high. As with Henderson RTS, since 2019, waste from ICI sources has decreased (Figure 3.21).

Despite the kerbside collection servicing 100 per cent of Napier city residents, the proportion of residential customers using the Redclyffe RTS indicates rural properties in Heretaunga Hastings north of Napier also use the transfer station (estimated to be one third of Heretaunga Hastings rural residents). There may be opportunities to increase diversion here by promoting or providing services at the transfer station specifically for household and farm waste.

At Henderson RTS and Redclyffe RTS, there is a reasonable portion of C+D waste. The planned C+D sorting area for Henderson Road RTS will help capture some of the divertible material and could also be considered for Redclyffe RTS.

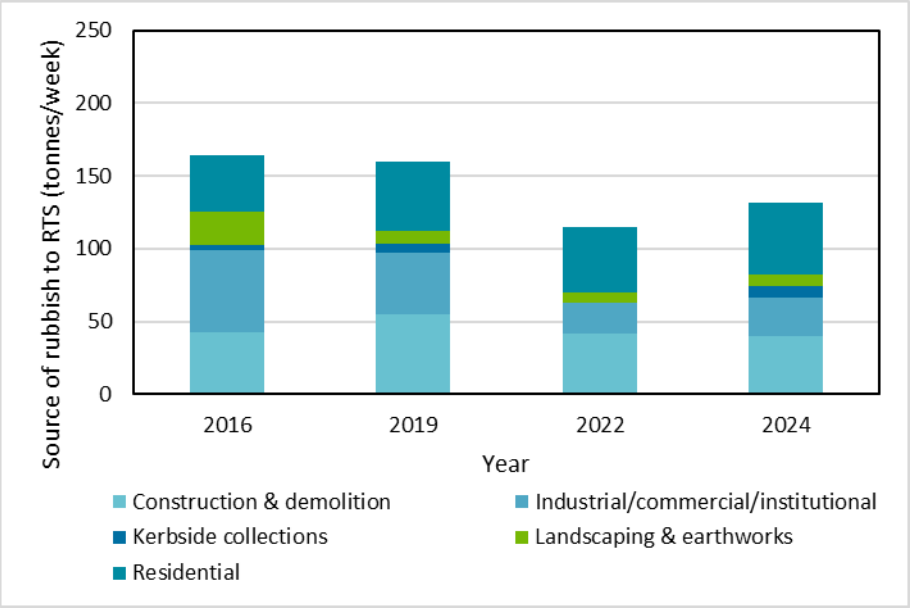

Figure 3.21 Source of rubbish at Redclyffe RTS

Transfer station rubbish composition

Based on SWAP audits (Waste Not Consulting, 2016; 2019; 2022; 2024) timber makes up the largest portion (40 per cent) of material going to Ōmarunui Landfill from Henderson Road RTS (Figure 3.22) however, the actual quantity of timber has decreased over time. Also present in reasonable quantities are textiles (14 per cent), rubble (13 per cent) and organics (9 per cent). Actual tonnages of organics, plastics and paper decreased, a potentially positive trend indicating more of these material types are being captured for recovery.

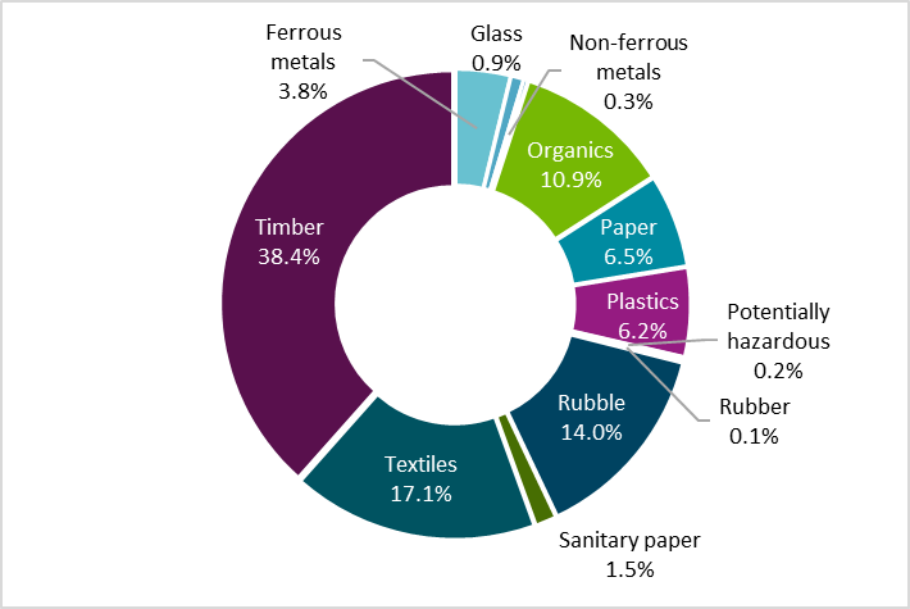

Figure 3.22: The overall composition of rubbish going to Henderson Road RTS in 2024

At Redclyffe RTS rubble (22 per cent) made up the largest portion of rubbish with timber the second most common material (21 per cent) (Figure 3.23). The portion of rubble and textiles have increased since 2016. There were also reasonable portions of textiles (16 per cent), organics (13 per cent) and plastics (12 per cent).

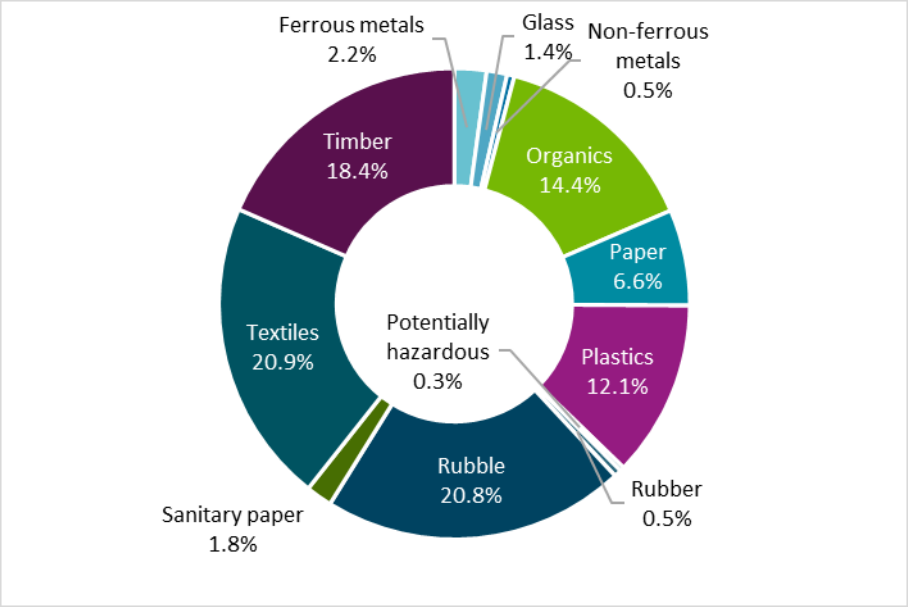

Figure 3.23: The overall composition of rubbish going to Redclyffe RTS in 2024

For rubbish going to both transfer stations, 36 per cent is potentially divertible through recycling (16 per cent) or composting (18 per cent) (Figure 3.24). Despite a price incentive offered at transfer stations for separating greenwaste, there is still some opportunity to divert organic material from Ōmarunui Landfill via RTS (although capturing all compostable material is unlikely (refer to Section 4).

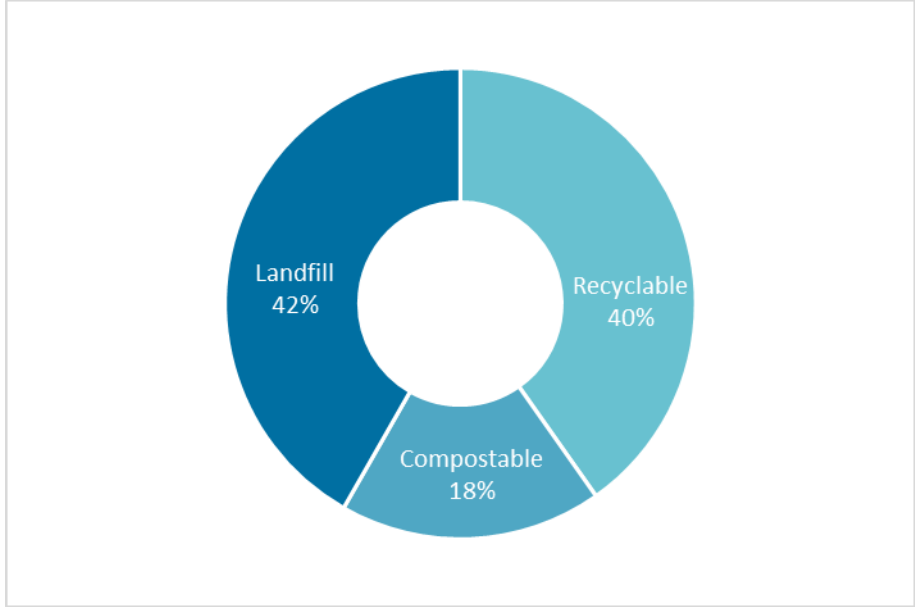

Figure 3.24: Potentially divertible material in the rubbish stream for Henderson Rd RTS and Redclyffe RTS for the 2022/2023 financial year

Transfer station diverted material composition

The composition of all diverted material for the 2022/2023 financial year for all Hastings District Council and Napier City Council transfer stations combined is shown in Figure 3.25. Greenwaste was the biggest portion of diverted material in 2023 (34.5 per cent), followed by glass (26.9 per cent) and ferrous metals (17.6 per cent).

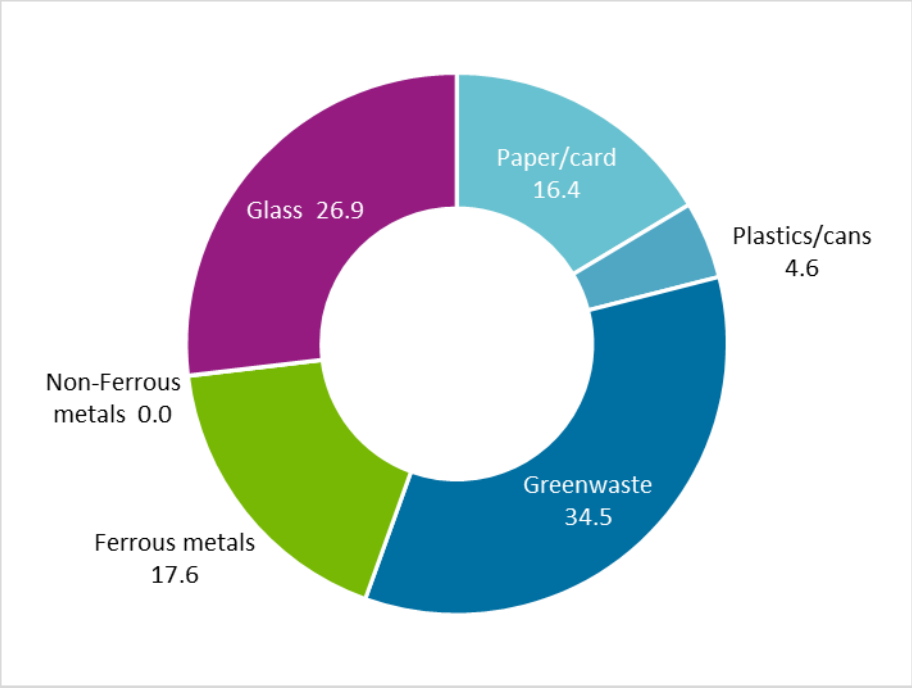

Figure 3.25: Composition of diverted material for 2022/2023 financial year for HDC and NCC transfer stations and recycling stations

3.4.3 Ōmarunui Landfill

Landfill quantities

The amount of rubbish disposed to Ōmarunui Landfill has varied over time (Figure 3.26). Waste disposal increased from 1990 peaking in 2004/2005 (140,400 tonnes). Following this peak, disposal reduced until 2012/2013, largely mirroring the economy (using the change in Gross Domestic Product as an indicator). Since then, there has been a gradual increasing trend in waste disposal, but overall disposal has remained well below the 2005 peak. The more recent (2016/2017 to 2020/2021) trend of increased waste disposal is also reflected in the improved economy but suggests waste disposal is starting to diverge from economic activity.

Increased volumes in 2020/2021 and a lower quantity in 2021/2022 may be associated with the pandemic, due to two lockdowns and the resulting impact on the economy.

Increased volumes in 2021 and 2023 resulted from flood waste disposal. When excluded, data (Figure 3.27) indicates that annual landfill disposal quantities are becoming more stable. In recent years, rubbish quantities from the councils' services have been consistent year on year, with commercial rubbish quantities influencing overall trends. The councils have less influence over rubbish generated in the commercial sector, but there is opportunity to build on the education and behaviour change initiatives established in the last six years to influence and collaborate with this sector.

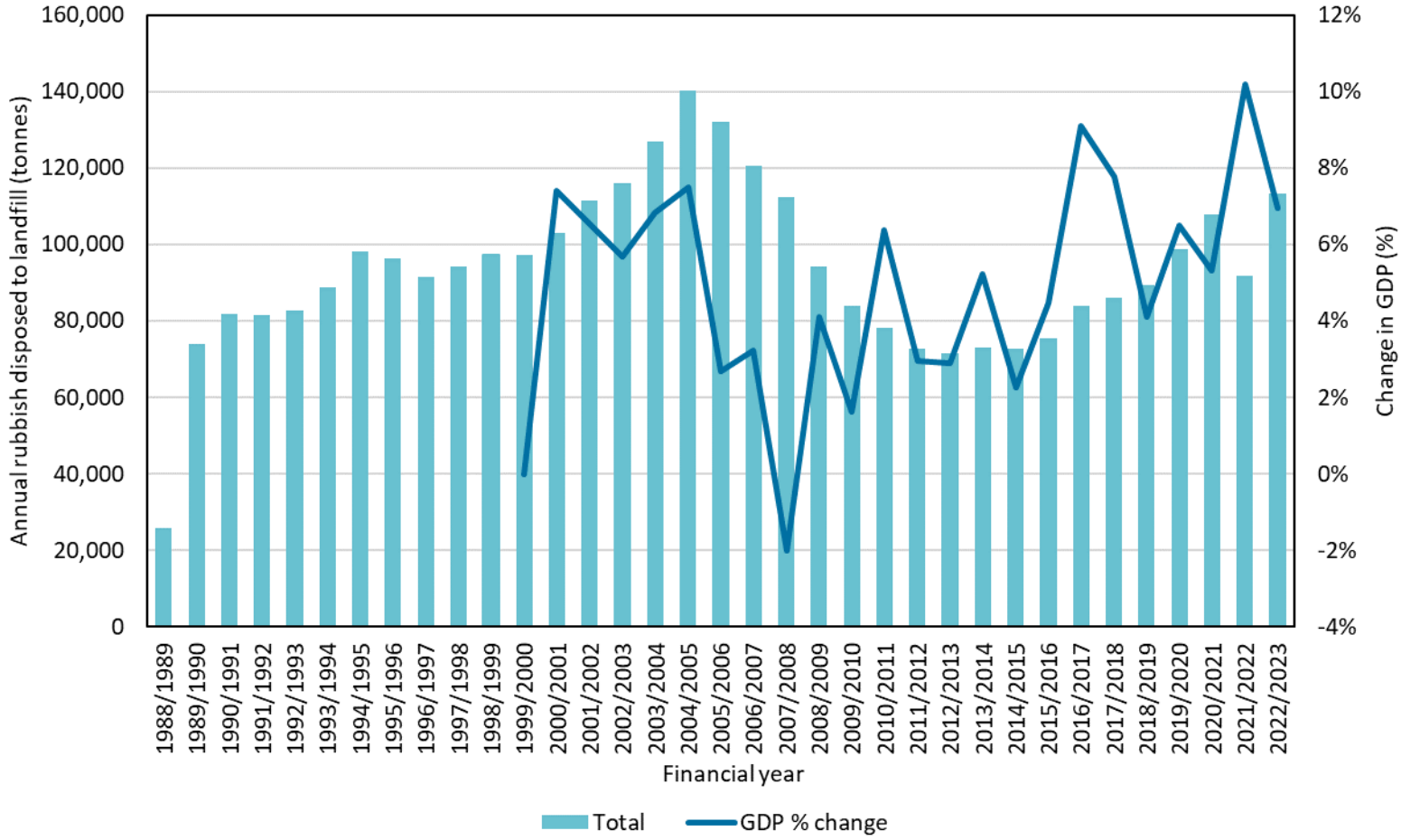

Figure 3.26: Annual tonnage of rubbish disposed to Ōmarunui Landfill since 1988 alongside the percentage change in GDP (Trading Economics, 2024)

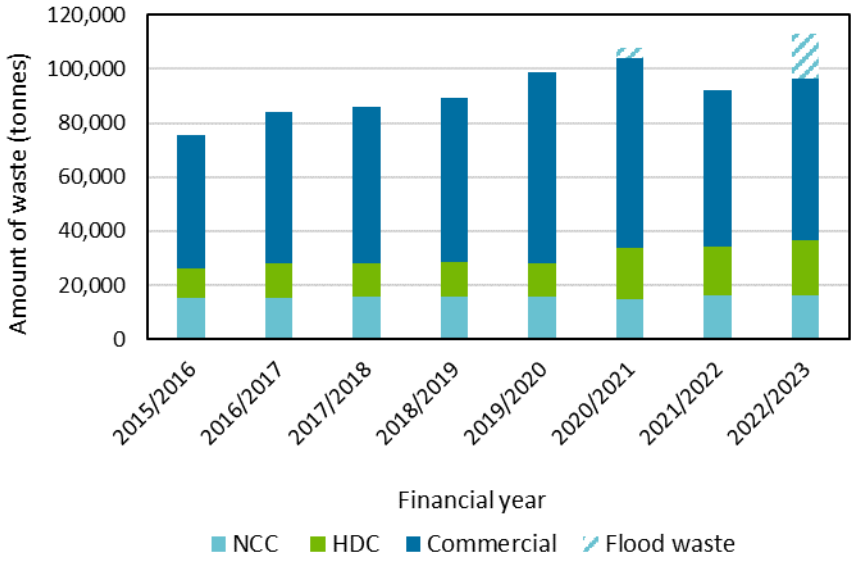

Figure 3.27 Quantity of rubbish disposed to landfill from the councils' services and commercial customers

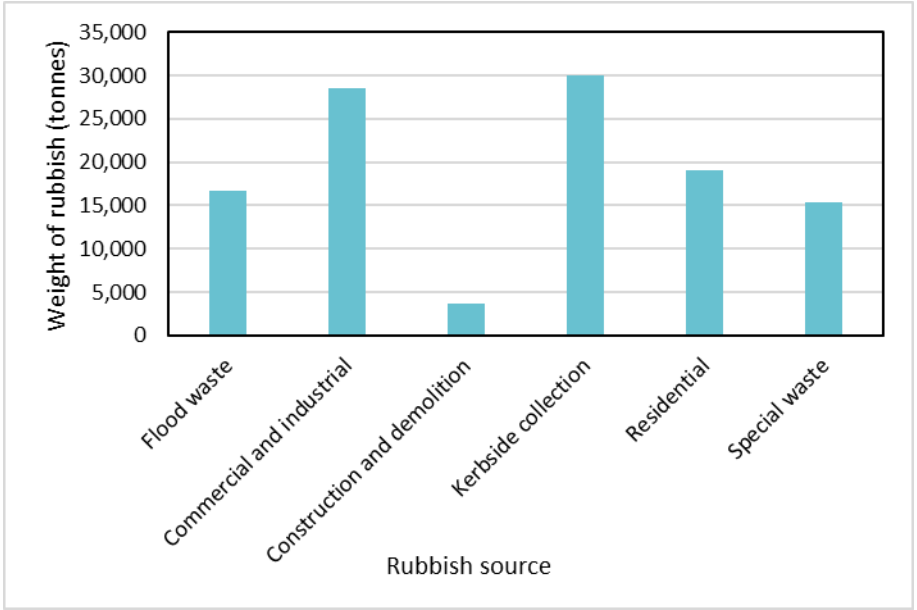

Figure 3.28: Source of rubbish disposed to Ōmarunui landfill from 2022/2023

Sources of rubbish disposed to landfill

The largest quantities of rubbish are from commercial and industrial activities, and kerbside collections (including non-council collections) (Figure 3.28). Residential waste (from transfer station drop-offs) also makes up a reasonable quantity. These three sources provide the biggest opportunity to divert materials from landfill. Waste quantities from C+D activities are lower, which may be associated with the source of this waste being classified as commercial when it enters the landfill, or this waste being more commonly disposed of at class 2-5 landfill facilities.

Landfill composition

The composition of landfill rubbish shown in Figure 3.29 indicates organics make up the largest portion of rubbish, followed by potentially hazardous and plastic materials, and then rubber, timber and paper (Figure 3.29).

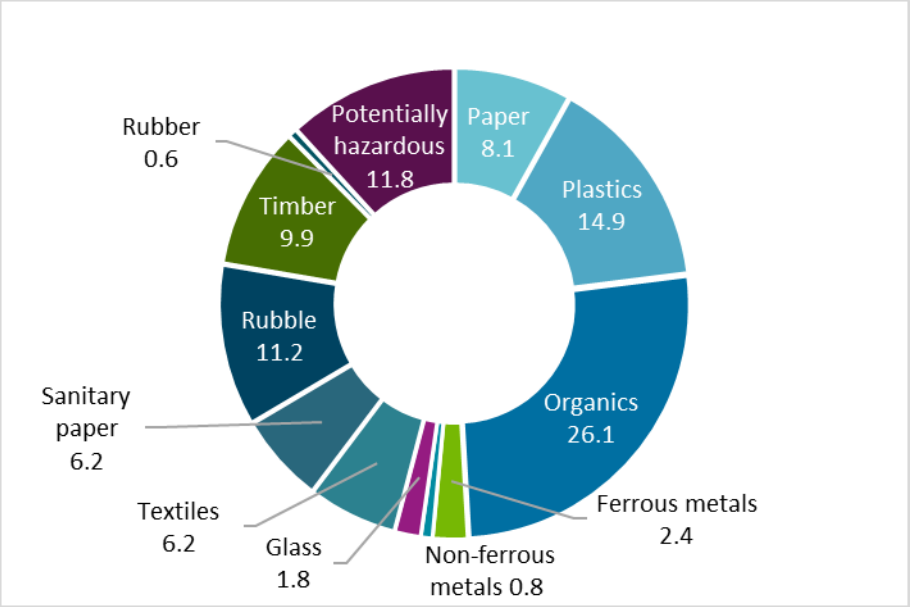

Figure 3.29: Composition of landfill rubbish in 2024

Since 2016, quantities of material types in the landfill rubbish stream have predominately increased. Quantities of sanitary paper, rubble, rubber and potentially hazardous waste have increased substantially over time, with smaller increases in plastics, textiles and timber. The large increases in hazardous material may be associated with increases in special waste disposal at the landfill, particularly tannery and offal (discussed further in the next section).

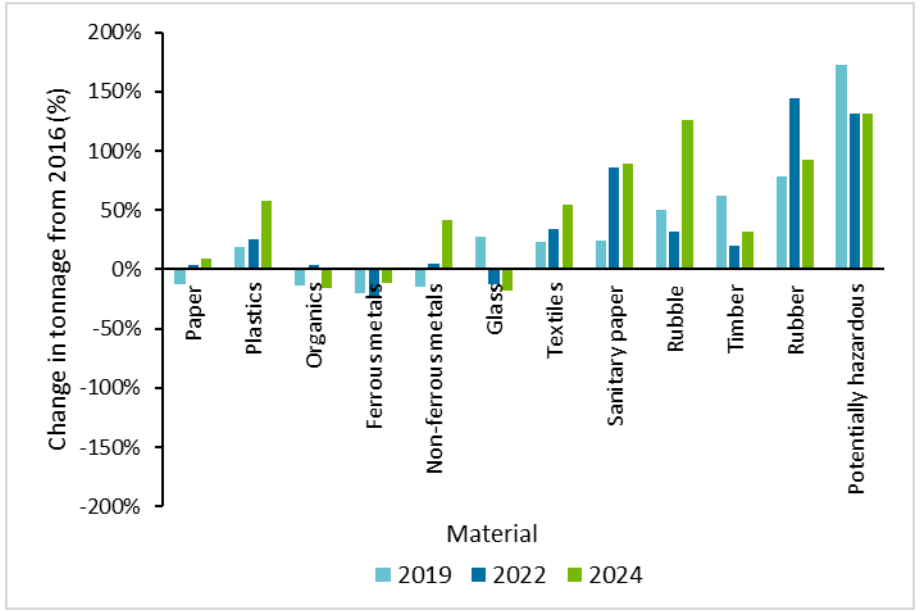

Figure 3.30: Change in composition of overall waste going to Ōmarunui landfill

While there is an increasing trend of waste to landfill, the amount of landfill waste that is potentially divertible has remained constant since 2016 (Figure 3.31). Organic material continues to provide the greatest opportunity for diversion from landfill, with organic material that is compostable being 25 per cent of total waste to landfill in the 2024 composition audit. The increase in rubble could be associated with construction work and increased volumes of plasterboard.

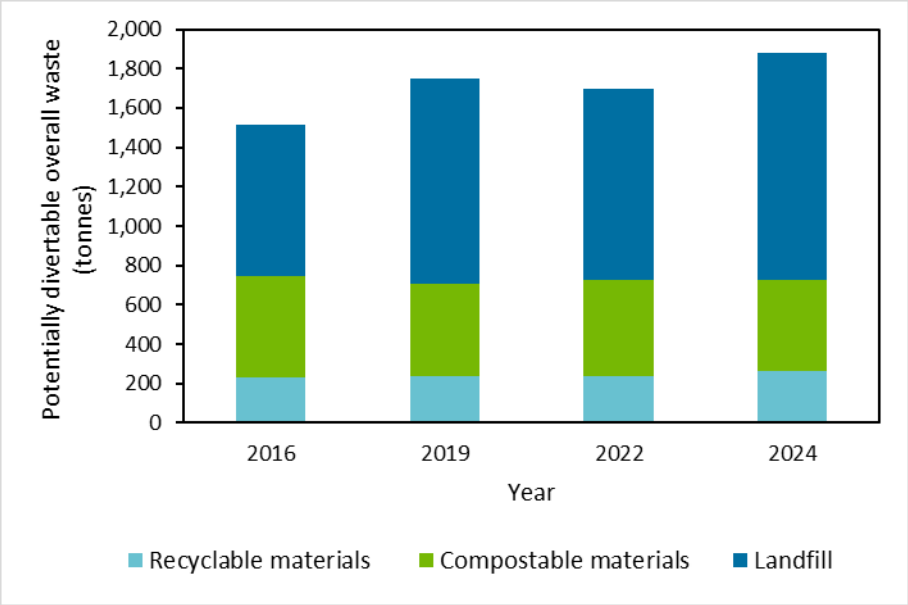

Figure 3.31: Potentially divertible waste at Ōmarunui landfill

Organic material

A reduction in organic material being disposed to landfill is one of the targets in the current WMMP, with a target reduction of 30 per cent by 2024 from the 2016/2017 baseline. The quantity of organic material disposed to landfill has increased over this time (Figure 3.32). When the sources of organic material are analysed in more detail, it is evident that special waste, and in particular tannery waste and offal, have significantly increased since 2019/2020. While there have been alternative options for tannery and offal waste in the past, there are currently no alternative options for these waste sources. If these waste types are excluded, organic material quantities have decreased, indicating some progress towards the WMMP target has occurred as a result of actions implemented over the last six years. The best opportunity of diversion of organic material is via the kerbside collections (Figure 3.32).

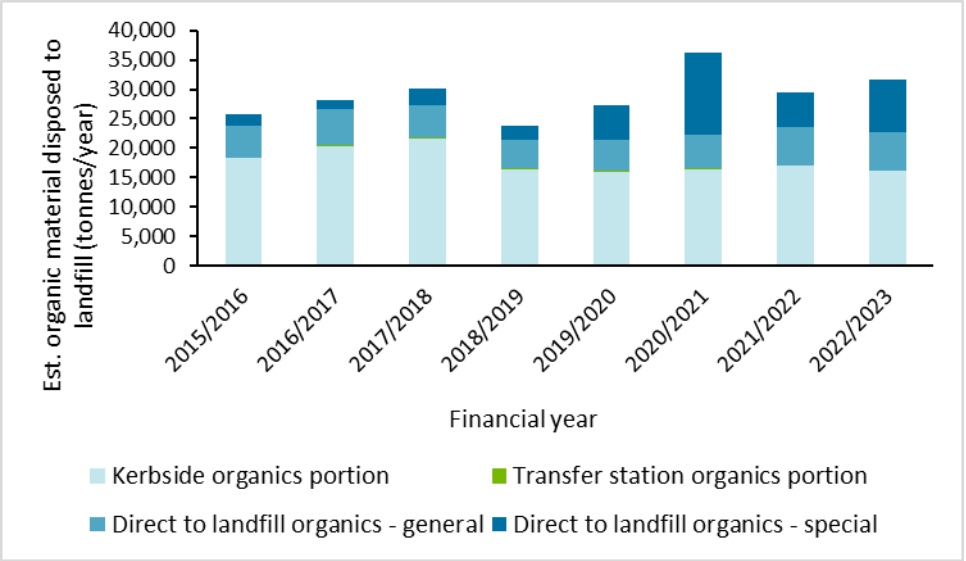

Figure 3.32: Estimated quantity of organic material disposed to Ōmarunui Landfill based on source

3.4.4 Other disposal facilities and processing sites

While there are a number of privately owned processing and disposal sites within Ahuriri Napier and Heretaunga Hastings, the councils have limited data on quantities of rubbish or diverted materials managed by these facilities. It is estimated that a significant volume of organic waste is composted or beneficially reused locally (est. 100,000 tonnes per year).

Construction and demolition activity is also likely to be diverting aggregates, soil, timber, paper and cardboard, or these are disposed to Class 2-5 landfills. Using national data for Class 2-4 landfills, on a per capita basis, the total estimated quantity of material disposed to Class 2-4 landfills could be almost 80,000 tonnes per year (Table 3.7).

Table 3.7: Estimated disposal at Class 2-5 landfills in HDC and NCC based on national data

Facility type	National disposal per capita (kg)[9]	Est. quantity based on population in HDC & NCC
Class 2	52	8,000
Class 3 & 4	455	70,700

[9] Sourced from national data set at Waste facilities and disposal | Ministry for the Environment

3.4.5 Other waste streams

Agrecovery rural recycling

Recycling of chemical containers through Agrecovery has increased significantly since 2017 (Figure 3.33). However, in 2023 recycling volumes dropped, most likely impacted by Cyclone Gabrielle.

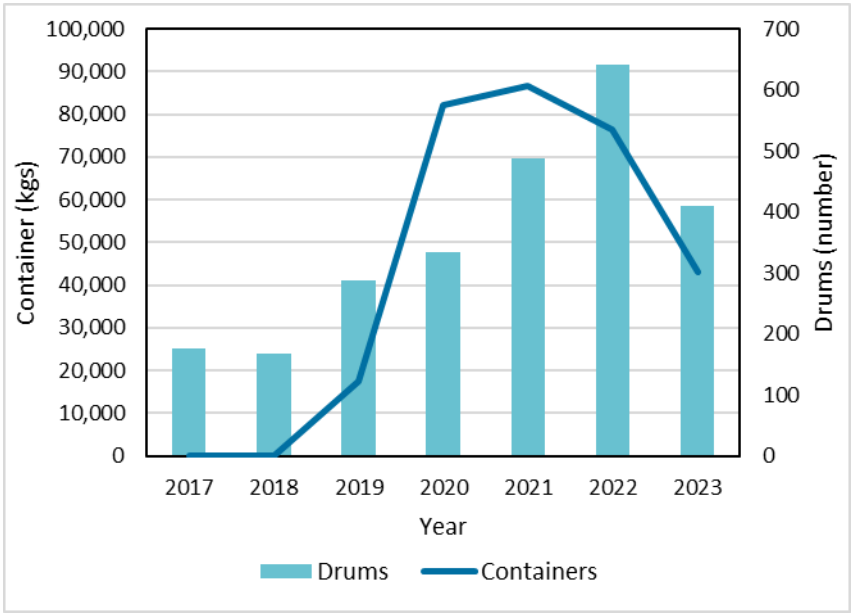

Figure 3.33: Agrecovery chemical containers collected in the Hawke's Bay region

Soft plastic recycling

Since the Soft Plastic Recycling scheme started at supermarkets in Hawke's Bay (July 2021), increasing quantities of plastics have been collected each year with more than 30 tonnes collected in 2023 (Table 3.8). This data includes all collections points in the Hawke's Bay region, including those outside Ahuriri Napier and Heretaunga Hastings.

Table 3.8: Quantity of soft plastic collected in Hawke's Bay

Calendar year	Tonnes
2021	6.58
2022	25.31
2023	30.51

Note: Scheme started in July 2021, so 2021 year is a part year

Hazardous waste

In the annual hazardous waste collections, Hazmobile, provided by the councils, paint has continued to be the most collected substance, increasing from 11,000 kg collected in 2020 to 19,000 kg in 2022 (Figure 3.34)Waste oil is the second most collected item with over 2,000 kg collected. Quantities of cylinders and household chemicals are decreasing. Small quantities of intractable chemicals (those chemicals that cannot be disposed in Aotearoa New Zealand) are collected, ranging between 77 kg and 100 kg per year.

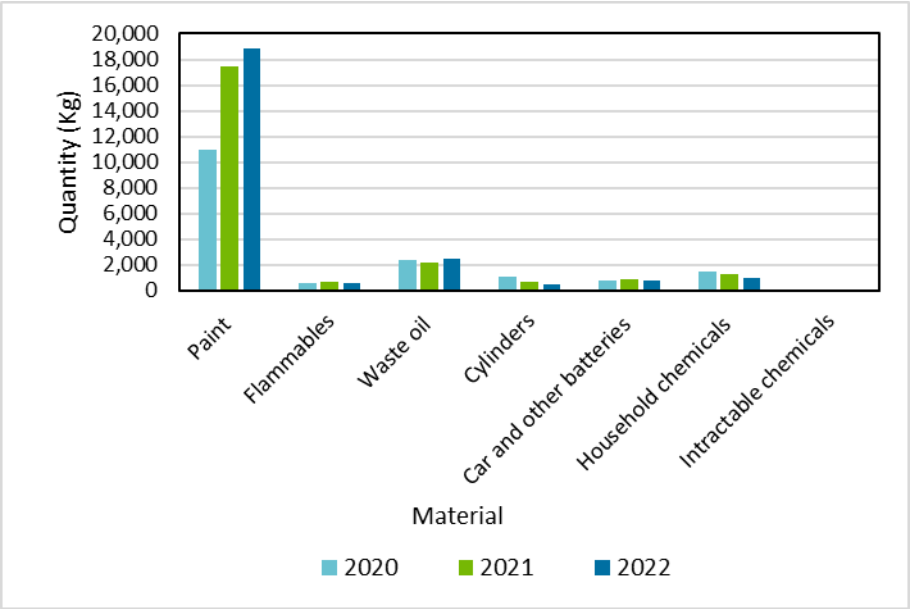

Figure 3.34: The amount of hazardous waste received at the annual collection for HDC and NCC Hazmobile event

Medical waste

With the aging population, the demand for medical and aged care facilities is growing. Te Whatu Ora Te Matau a Māui, Hawke's Bay (formerly Hawke's Bay District Health Board) have been monitoring the volume of rubbish at their six facilities (Hawke's Bay Hospital, CHB Health Care, Flaxmere Health Centre, Napier Health Centre, Springhill Treatment Centre and Wairoa Hospital) as well as their corporate offices. Overall rubbish generation has been decreasing (Figure 3.35). In 2023/2024, 530 tonnes was landfilled and 150 tonnes recycled or composted (22 per cent of the total waste stream).

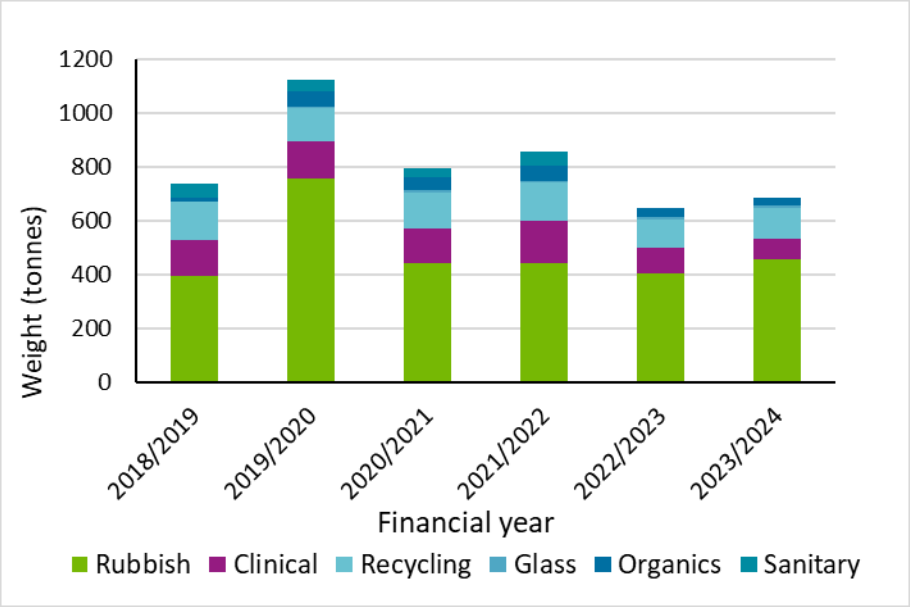

Figure 3.35: Volume of rubbish and diverted material from Te Whatu Ora Te Matau a Māui facilities

A number of key initiatives to reduce waste are in place including:

- Recycling of batteries, e-waste, printer ink and toner cartridges (returned to manufacturer), scrap metal, PVC – returned to manufacturer (Baxter) – IV fluid bags, oxygen tubing, oxygen masks, suction tubing, single-use medical devices (e.g. compression sleeves) – reprocessed by Mesalv, and fluorescent tubes (taken by Interwaste)
- Kitchen food scraps for stock feed
- Reusable isolation gowns
- Campaign to reduce unnecessary glove use (ICU)
- Reusable bluey trial (ICU)
- Community pharmacy expired/unwanted medicines (processed and disposed of by Interwaste).

There are also some initiatives under investigation at a national level.

Waste audits of clinical or biohazardous waste have also identified the potential to divert additional quantities.

Electronic waste

The Environment Centre Hawke's Bay (now known as Sustainable Hawke's Bay) collected e-waste up until July 2022, collecting 4,400 items of e-waste in 2019 including TVs as part of a local TV takeback scheme.

A user-pays e-waste service was introduced at the Henderson Road RTS in October 2022. This service collected 4,200 items in the 2023/2024 year. The most common e-waste dropped off includes Flat screen TVs and LCD computer monitors, modems and routers, computers, small printers, keyboards and docking stations, and DVD players.

TechCollect has also diverted over 20 tonnes of e-waste since 2018 (Table 3.9).

Table 3.9: E-waste collected as part of TechCollect NZ partnership

Site	Dates collected	Amount collected (kg)
OfficeMax (Hastings)	Nov 2018 to Oct 2020	5,572
The Warehouse Group at Noel Leaming (Napier)	Feb 2021 to Mar 2024	17,615

Illegal dumping

In 2022/2023, there were 342 illegal dumping events reported to Napier City Council and 310 reported to Hastings District Council (Figure 3.36). The councils assign officers who try to identify those responsible to recover costs.

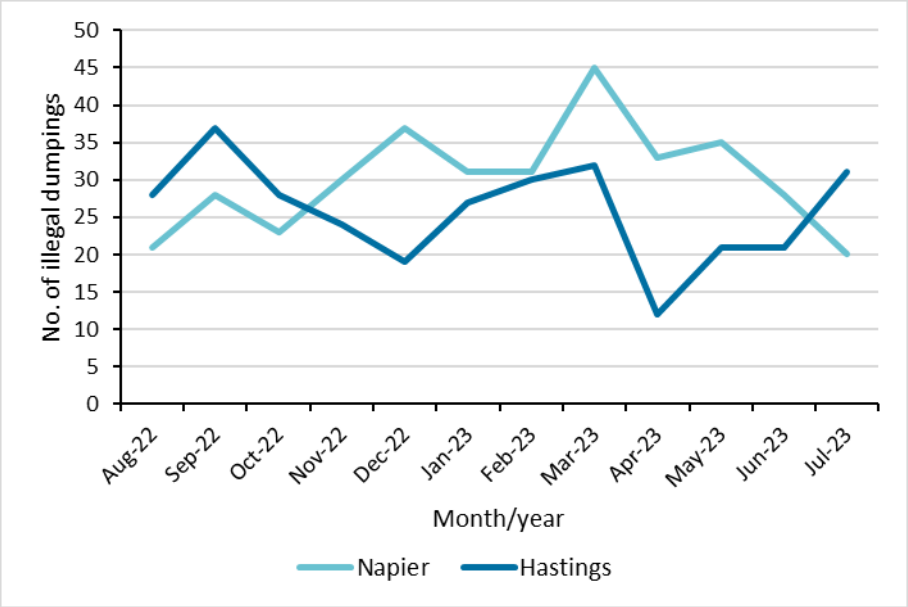

Figure 3.36: Number of illegal dumping events reported to NCC and HDC from August 2022 to June 2023

The number of illegal dumping events reported to Hastings District Council and Napier City Council from 2017 to 2023 is shown in Figure 3.37. The number of events varied across the councils, with HDC reports peaking in 2022 before declining in 2023. Napier City Council had the highest number of reported dumping events in 2023.

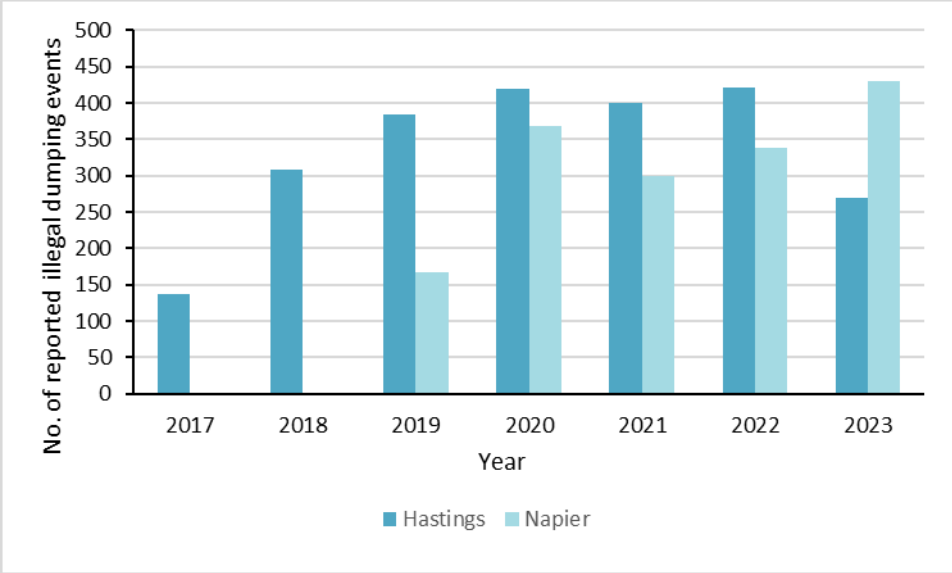

Figure 3.37: The number of illegal dumping events reported to HDC and NCC from 2017 to 2023

Contaminated soil

Contaminated soil disposed to Ōmarunui Landfill (Figure 3.38) show a peak in 2019/2020 and 2020/2021, potentially as a result of some large development works in the region (fuel tank and subdivision works), as well as changes to regulations regarding the handling and disposal of soil. Since the 2019/2020 financial year the amount of contaminated soil disposed to landfill has decreased from near 6,000 tonnes to less than 500 tonnes.

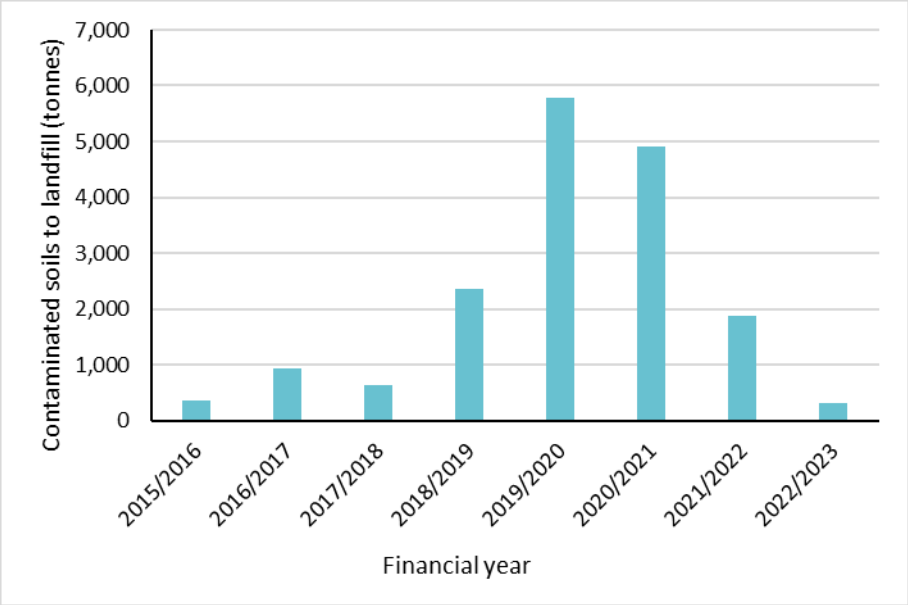

Figure 3.38: The amount of contaminated soils going to Ōmarunui Landfill

3.4.6 Cyclone and flood waste

Cyclone Gabrielle hit the Hawke's Bay on 13 and 14 February 2023. The event caused widespread flooding resulting in a significant amount of waste from flood debris, horticulture waste, and damaged property contents and buildings. Waste infrastructure was also damaged, with the landfill temporarily closed and weighbridge damaged, and some damage at Redclyffe RTS affecting weighbridge and kiosk operations. Some local industries processing waste were temporarily unable to operate and, in some cases, have been unable to resume recovery activity (i.e. Pan Pac processing timber).

The Silt Recovery Task Force, managed by Hawke's Bay Regional Council has been responsible for the clean-up and disposal of silt and woody debris from the cyclone. The task force has collected over 1,650,000 cubic metres of silt, approximately 160,000 tonnes of woody debris and processed an estimated 125,000 cubic metres of mixed waste (Hawkes Bay Regional Council, 2024). This has been processed at purpose built cleanfill sites and recycled (e.g. fence posts sent to Repost) or landfilled.

The amount of waste taken to Ōmarunui Landfill as a result of the cyclone is shown in Figure 3.39. Around 11,000 tonnes of flood waste was disposed to Ōmarunui Landfill in March 2023. From February 2023 to January 2024 18,500 tonnes of waste was taken to Ōmarunui Landfill. In addition, waste was disposed to an out-of-region landfill (Bonny Glen Landfill in Marton) and food waste was sent to Ecogas (Reporoa) for processing (Table 3.10). Alongside general flood waste, disposal of offal and carcases, wool and hides, and packaging was required. Over 28,000 tonnes of flood waste have been landfilled to date and recovery work is continuing with demolition of buildings now underway.

Table 3.10: Cyclone Gabrielle flood waste and disposal points (February 2023 to January 2024)

Disposal point	Quantity (tonnes)
Ōmarunui Landfill	18,541
Bonny Glen Landfill	9,902
Ecogas (food)	545
Scrap metal	97
Total flood waste	29,085

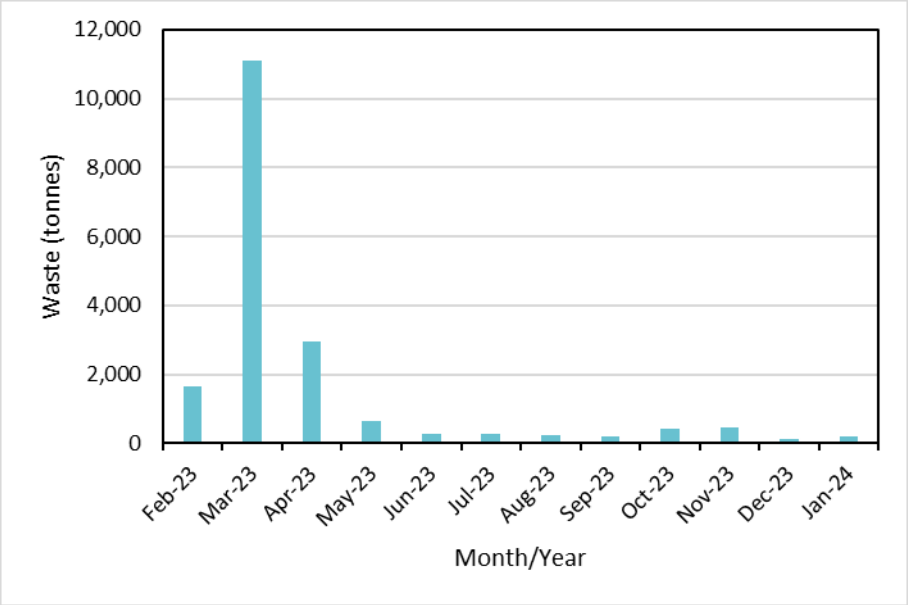

Figure 3.39: Flood-related waste disposed to Ōmarunui Landfill caused by Cyclone Gabrielle

3.5 Waste-related emissions

Based on the Hawke's Bay Community Carbon Footprint report, there are three major sources of emissions from waste within the scope of this waste assessment (open and closed landfills and composting) in Heretaunga Hastings and Ahuriri Napier (Figure 3.40). Emissions associated with the disposal of solid waste from operating landfills are the primary source of emissions, being close to 45,000 tonnes of CO_2e across Ahuriri Napier and Heretaunga Hastings (note this assumes default emissions factors).

Waste emissions comprised 2 per cent of all emissions in Hawke's Bay in 2020/2021 (AECOM New Zealand Limited, 2022). Napier City Council's total emissions from waste were 13 per cent of their overall emissions in 2022/2023[10].

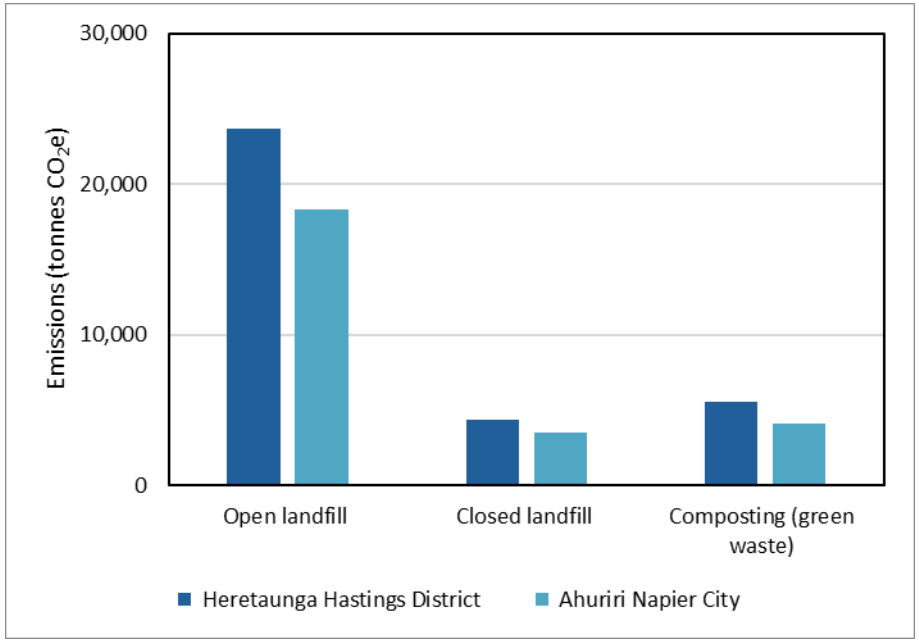

Figure 3.40: Waste emission sources for the HDC and NCC 2020/2021

[10] Calculations provided by NCC

Te rautaki para | Waste strategy contains a target reduction (30 per cent) of waste-related biogenic emissions. While baseline emissions are still to be determined, current biogenic emissions from waste for Ahuriri Napier and Heretaunga Hastings are summarised in Table 3.11. Of these emission sources, 920 tonnes of biogenic methane was derived from solid waste in 2021/2022 and within the scope of this waste assessment.

Table 3.11: Quantity of biogenic methane emissions for Heretaunga Hastings

Source	Biogenic methane (tonnes)		
	2018/2019	2019/2020	2020/2021
Biofuel	70	71	71
Biodiesel	-	-	-
Composting (greenwaste)	**94**	**94**	**94**
Landfill gas	**811**	**816**	**826**
Wastewater treatment	136	151	164
Enteric fermentation	28,379	25,595	26,273
Manure management	562	517	518
Total biogenic CH_4	30,053	27,243	27,947

Note: **Bold items** are within the scope of this waste assessment

3.5.1 Impact of landfill gas capture

Ōmarunui Landfill has a landfill gas capture system which in 2023 had a gas collection and destruction efficiency of 62.4 per cent. A Unique Emission Factor for Ōmarunui Landfill was calculated for the waste disposed to landfill in 2022/2023 compared to default emissions factors. Actual emissions from Ōmarunui Landfill are 66 per cent less than assumed using default emissions factors (Figure 3.41). The emissions from processing recovered material in Heretaunga Hastings and Ahuriri Napier is lower again (970 t CO_2e[11], excluding transport).

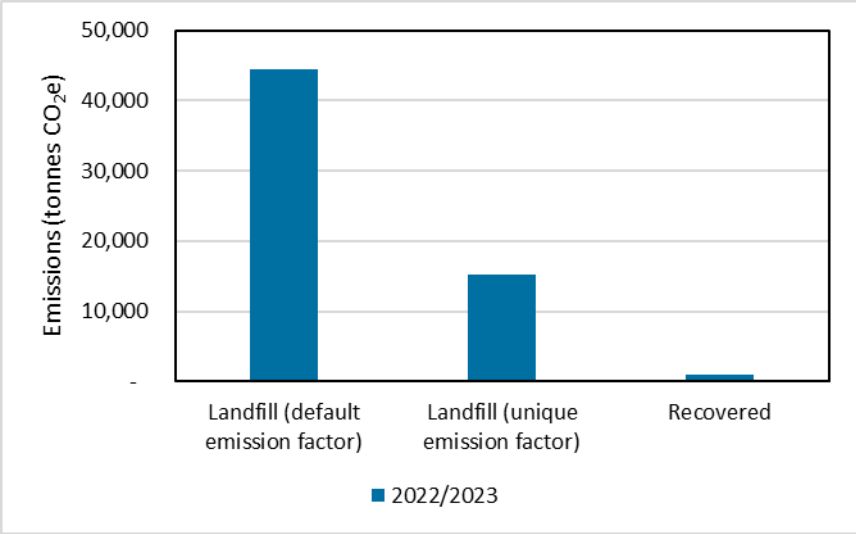

Figure 3.41: Comparison of HDC and NCC waste emissions without and with landfill gas capture, alongside recovery

[11] Using UK Government GHG Conversion Factors for Company Reporting from DEFRA

3.6 How much does it cost?

3.6.1 Budget and rates for waste

The rates for kerbside collections for the councils are shown in Table 3.12 and the total budget for delivering waste services by the councils are shown in Table 3.13.

Table 3.12: Rubbish and recycling targeted rate cost by council

Council	Revenue	Per household (including GST)
NCC	Kerbside rubbish collection and disposal	$222
	Kerbside recycling	$102
HDC	Kerbside rubbish collection and disposal	$155 residential
		$310 commercial CBD
	Kerbside recycling	$105

Table 3.13: Total budget to deliver waste services by council

Council	Capital expenditure 2023/2024	Operating expenditure 2023/2024
NCC	$5.6 m	$13.5 m
HDC (2024/25)	$10.3	$23.7 m

3.6.2 Waste disposal levy

The territorial authority portion of the waste disposal levy collected by the government is distributed to councils based on population. With the increase in the waste levy occurring since 2021, revenue from this levy has increased significantly in the last three years (Figure 3.42). In 2022/2023 financial year a total of $1.4 m was received. With the ongoing increases in the waste disposal levy up to 2027, this revenue is forecast to increase to $2.15 m per year (subject to the proportion of levy allocated to councils remaining at 50 per cent and similar waste disposal to landfill (Table 3.14).

This funding can be spent on waste minimisation activity as defined in the relevant WMMP. Since 2020, the Hastings District Council waste levy has funded waste minimisation grants for community initiatives, education events, new kerbside recycling crates, establishment of rural recycling facilities and polystyrene recycling trial.

Since 2020, the Napier City Council waste levy has funded recycling services at Redclyffe RTS, the recycling drop-off centre in Onekawa, the waste education schools' programme, kerbside recycling service changes and education campaigns, organic waste workshops, waste minimisation community and organisation initiatives and the Regional Construction and Demolition Waste Minimisation Advisor role.

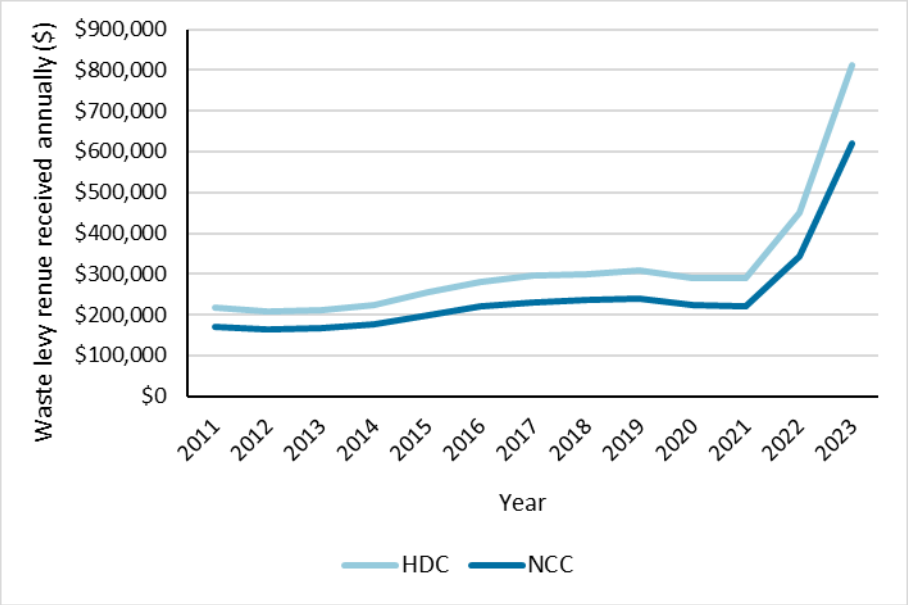

Figure 3.42: Waste levy revenue received by HDC and NCC since 2011

Table 3.14: Forecast waste levy revenue for HDC and NCC based on legislated increases to 2027

Council	Financial year ending				
	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
HDC	$813,300	$976,000	$1,057,300	$1,138,700	$1,220,000
NCC	$620,900	$1,055,047	$1,143,000	$1,231,000	$1,319,000

Note: Assumes proportion of levy allocated to the councils will remain at 50 per cent and waste disposal remains constant

4 System performance

4.1 Introduction

This section provides a holistic view of the waste system, identifying areas where waste minimisation is progressing and those that could be improved with future actions.

4.2 Waste per capita

There are two population-based indicators in the Te rautaki para|Waste strategy – waste disposal and waste generation.

Waste disposal to landfill per capita is a key indicator of overall performance of the waste system and can be used to benchmark against other territorial authorities.

Since 2007, there has been a decreasing trend in waste per capita for Heretaunga Hastings and Ahuriri Napier communities (Figure 4.1). However, over the period of the last WMMP, per capita disposal has increased above 2016 (WMMP baseline) levels and in 2024 was 600 kg per capita. This is driven largely by commercial activity, as kerbside waste disposal per capita has shown a stable to decreasing trend over the same period (Figure 4.2) with 191 kg per capita disposed in 2024.

Waste generation per capita is a new indicator in Te rautaki para | Waste strategy, measuring the increase in circular activity with the aim that material entering the waste management system (as opposed to waste disposed to landfill) should also decrease as more waste avoidance and reduction occurs. Based on data currently available (noting data on diverted material is limited particularly from the commercial sector), the total waste generated within Ahuriri Napier and Heretaunga Hastings in 2022/2023 was 808 kg per capita, lower than the national figure of 1055.1 kg per capita (Ministry for the Environment, 2024).

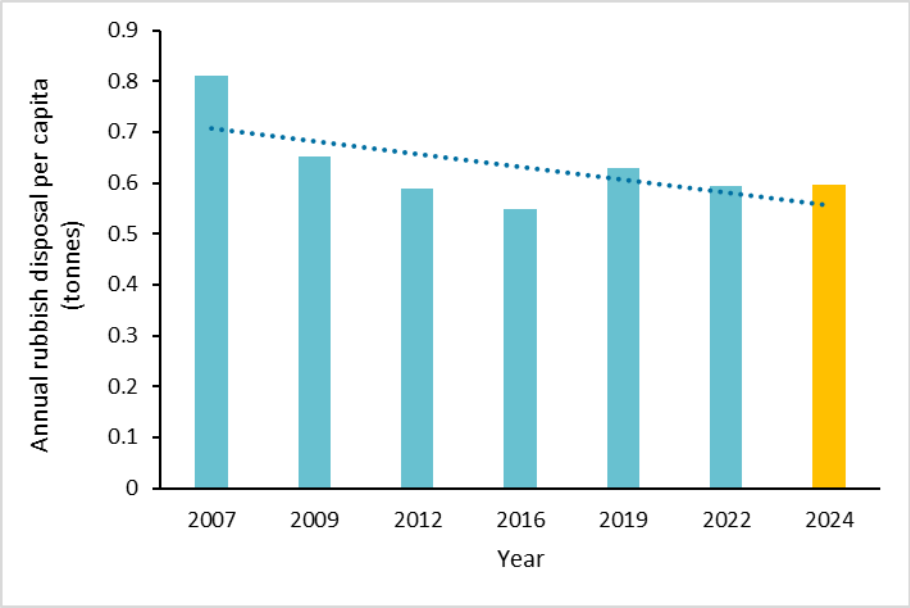

Figure 4.1: Annual rubbish disposed to landfill per capita

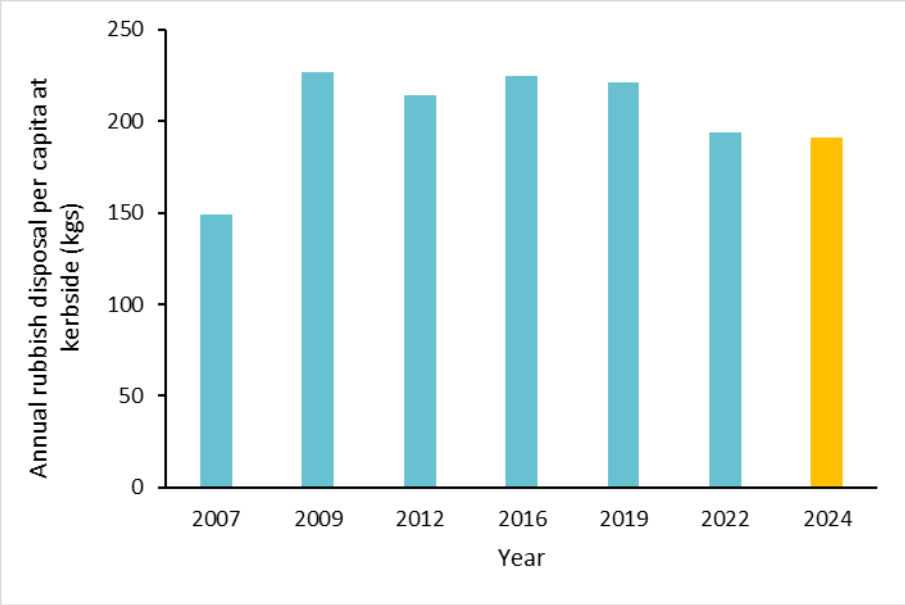

Figure 4.2 Annual household rubbish disposed at kerbside per capita

Comparing the waste generated per capita to landfill (all disposal) in Heretaunga Hastings and Ahuriri Napier to that of other the councils (Figure 4.3) indicates rubbish disposal in the area is in the middle of the range. The waste per capita is lower than the national per capita disposal for 2022/2023 of 706 kg (Ministry for the Environment, 2024), but more than that of comparable districts such as New Plymouth, Tauranga and Western Bay of Plenty.

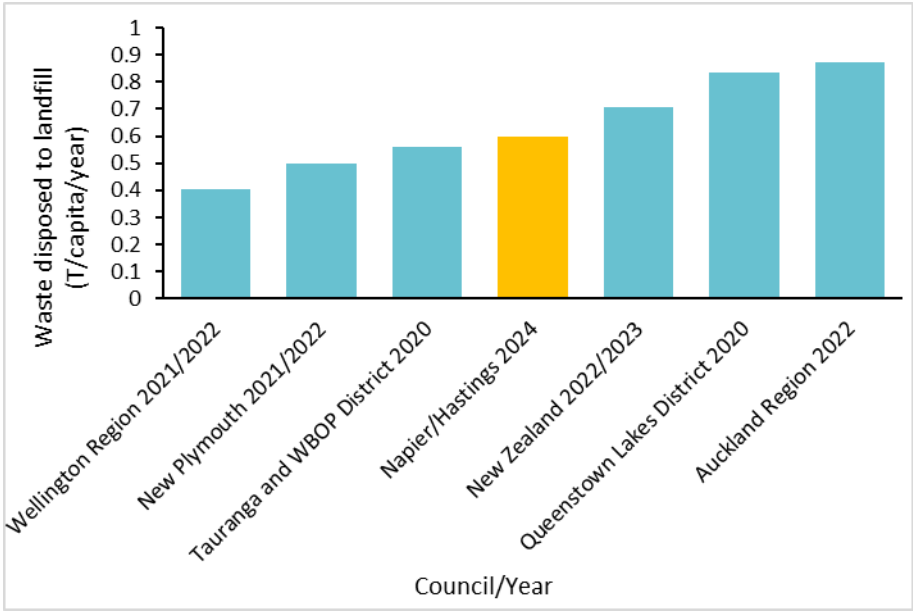

Figure 4.3: The amount of waste per capita to landfill a year for select councils

When kerbside rubbish disposal is compared across councils a similar picture emerges. The total disposal of rubbish per capita at kerbside for the councils (191 kg/capita/annum) is the median value for the waste disposal to landfill values for councils used in Figure 4.4. Among the councils with lower waste disposal at kerbside, New Plymouth City and Tauranga and Western Bay of Plenty councils have food scraps collections as part of their kerbside service. The low disposal rate for Wellington councils may be influenced by user pays rubbish bag collections and commercial data being excluded.

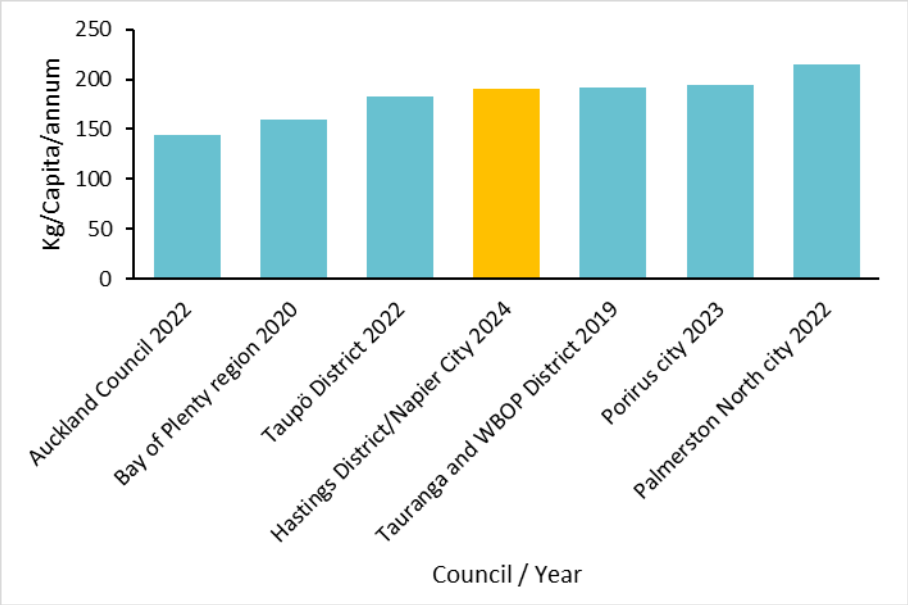

Figure 4.4: Annual rubbish disposed of at kerbside for select councils

4.3 Material capture

The capture of materials from the waste system into reuse and recycling is also a good indicator of how well recovery networks are performing. Material capture is calculated by identifying what material is diverted and what material is landfilled based on composition audits.

4.3.1 Kerbside material capture

Kerbside recycling only includes paper, plastics and cans[12], and glass, shown in Figure 4.5. Of all glass disposed at kerbside through recycling crates and rubbish bins, 83 per cent is recycled, indicating the glass collection at kerbside is performing well for the councils. Figure 4.5 shows that about half of the paper and plastics disposed at kerbside is captured in recycling, indicating reasonable performance, but an area where further capture could be achieved through targeted education.

[12] Recycling data for plastics and cans included within plastics as data on separate streams has not been collected.

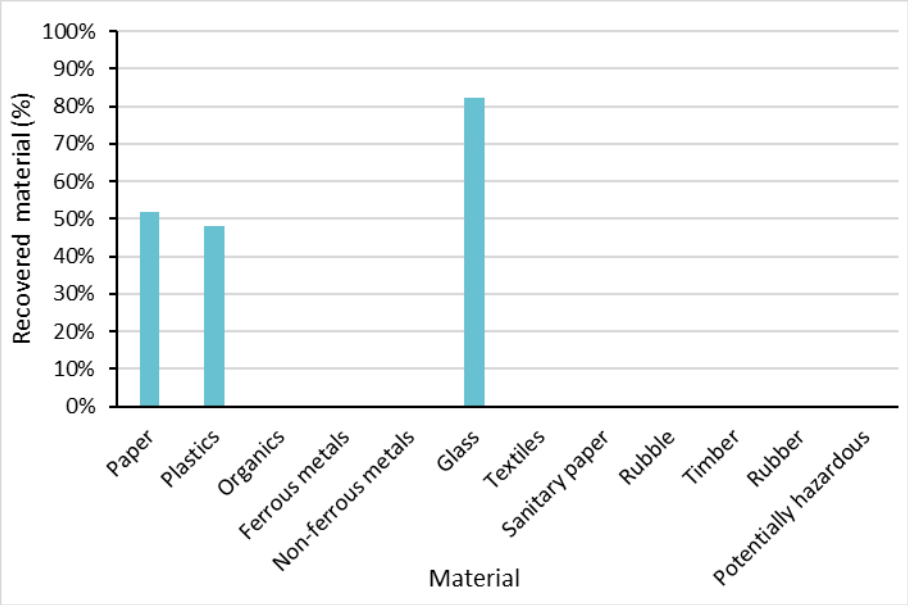

Figure 4.5: The amount of recovered waste as a portion of total waste from kerbside collections based on material type

4.3.2 Transfer station material capture

At the RTS more material streams can be recovered compared to kerbside, with organic material and metals being recovered on top of glass, paper and plastics (Figure 4.6). Material capture at the RTS has been calculated through identifying the portion of material recovered compared to the overall material that is landfilled from the RTS. Glass has the highest capture rate of 82 per cent. Approximately 40 per cent of organic material is captured indicating that price incentives to separate greenwaste may be increasing organic recovery but there is still opportunity to capture more. There is also an opportunity to recover more paper and plastics at transfer stations.

There are recovery options for rubble, timber (Blackbridge and Redclyffe RTS only)[13] and rubber (tyres) but capture rates are low, most likely due to the lack of data on the recovery of these material streams.

[13]A new timber recovery initiative introduced in 2023/24 means that all three RTS now divert large volumes of timber e.g. Henderson Road RTS diverted 590 tonnes of timber in 2023/24.

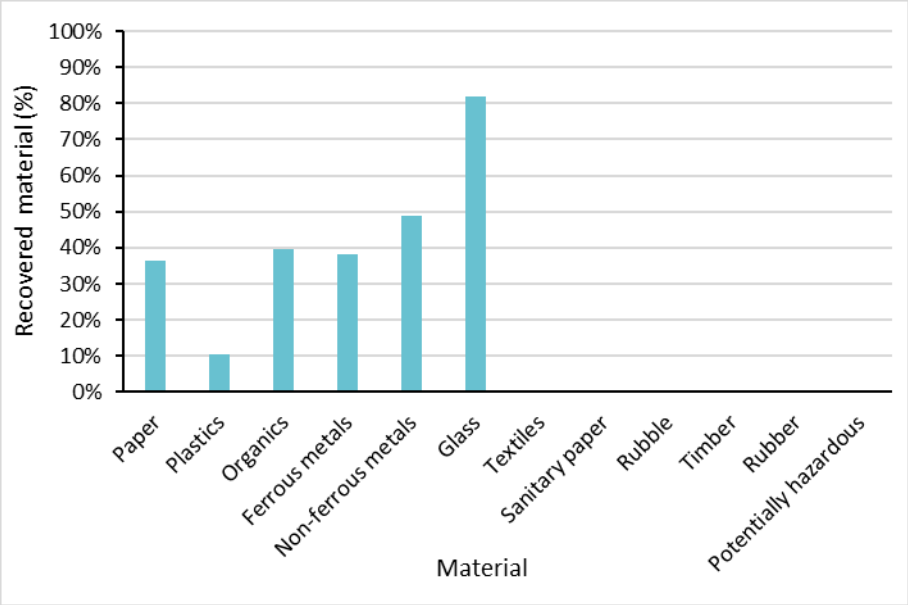

Figure 4.6: The amount of recovered waste from total RTS waste

The overall material capture across all services (kerbside, transfer stations and landfill) for 2022/2023 is shown in Table 4.1. There are significant data gaps in commercial recovery because limited data is available and therefore, overall material capture is likely to be underestimated. There is an opportunity to work with the commercial sector to further explore how this information could be accessed without sharing any commercially sensitive information.

Table 4.1: Overall material capture of total waste generated

Material	Overall recovery
Paper	26%
Plastics	12%
Organics	5%*
Metals	32%
Glass	73%
Timber	8%

Note: *Council services only; if estimated commercial recovery is included recovery is 77 per cent

Glass has the best capture rate overall (i.e. 73 per cent of glass in the waste system is diverted to recycling), indicating existing services cater well for this material stream.

Organic material captured overall based on council provided services is very low with 5 per cent getting recovered, all of this at transfer stations. This is influenced by the lack of data from commercial operations (i.e. composting) which is approximately 100,000 tonnes per year[14]. When this commercially sourced organic material is included, 77 per cent of organic material within the whole waste system is captured for composting. As noted in the previous section, there is opportunity to increase the capture of organics at the kerbside and transfer stations.

[14] Note: much of this commercial organic material was never destined for landfill.

There are relatively low capture rates for paper, card and plastics as well as metals. As markets for scrap metal are well established and strong, it is likely that capture rates are actually much higher, but again there is a lack of data to demonstrate this.

As Ōmarunui Landfill is reasonably accessible, the commercial sector has the option to go directly to landfill, particularly with larger loads (i.e. skip bins). This is evident in the predominantly residential customer base at transfer stations, alongside the quantity of waste disposed directly to landfill from commercial customers. There is an opportunity to increase capture of divertible material by directing more commercial waste through transfer stations, if fit for purpose facilities could be provided with transfer station upgrades e.g. noting work is underway to recover more C+D from Henderson Road RTS (Figure 4.7).

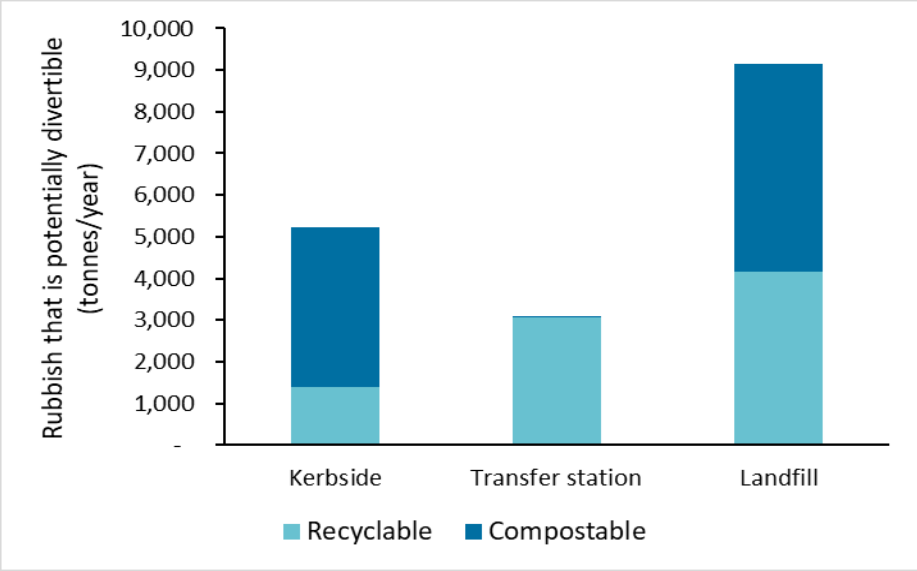

Figure 4.7: Estimated quantity of potentially divertible rubbish disposed to landfill in 2022/2023

An estimated 17,000 tonnes of rubbish currently landfilled is potentially divertible with existing recovery services (based on composition audits completed in 2022 and rubbish quantities for 2022/2023, Figure 4.7). This estimation is in addition to what is currently recovered and restricted to materials that currently have an end market.

Note however, that the actual recovery that could be achieved is likely to be lower than this and the overall system capture is unlikely to achieve 100 per cent.

4.4 Material flows

Overall, material flow from waste generated (entering the waste system) to landfill disposal or recovery for different material streams is presented in a sankey diagram in Figure 4.8. The sankey diagram shows how materials are captured (i.e. through commercial collections direct to landfill or processor, or via kerbside collection or transfer stations) and the proportion of these materials that are recovered or disposed to landfill.

From Figure 4.8 it is evident that:

- The majority of waste generated is commercial.
- A significant portion of recyclable or compostable material is currently landfilled and not captured by existing recovery systems
- Over half of organic material entering the system is recovered
- A low percentage of recycling (excluding glass) from RTS pits and commercial sources are recovered
- Kerbside services are reasonably effective in recovering recyclable materials but there is potential for residents to use this system better.

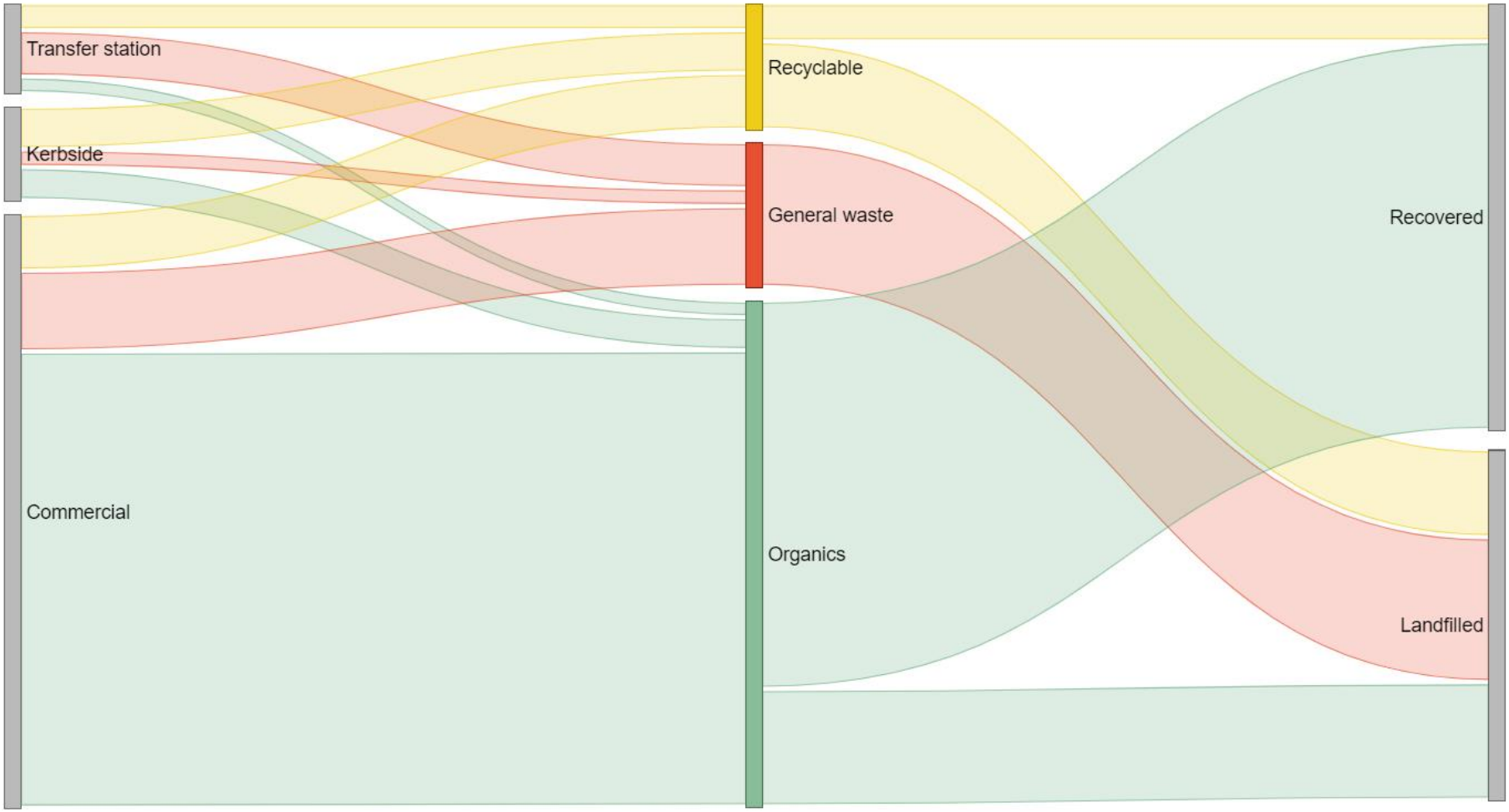

Figure 4.8: Overall waste streams from kerbside, transfer stations and commercial sources that are landfilled or recovered

4.5 2018 WMMP progress

The previous WMMP for Heretaunga Hastings and Ahuriri Napier was prepared in 2018. The WMA requires that each waste assessment includes a review of the previous WMMP, including an assessment of data, key issues from the previous WMMP, any other issues not addressed, and an update on the action plan including progress.

4.5.1 Data availability

A goal from the 2018 WMMP was to improve information on waste generation and movement in Ahuriri Napier and Heretaunga Hastings (Hastings District Council, 2018). Hastings District Council has continued to collect robust data for transfer stations and kerbside collection services throughout the last eight years. Napier city council has some historic data gaps but since the new kerbside contract has commenced, data capture has improved. Hastings District Council is in the process of establishing a data warehouse which should enable efficient reporting of waste and diversion data. With the increased data reporting requirements at the national level, ongoing improvements to data management will ensure efficient reporting when required.

Access to commercial data on material diversion to recycling or composting continues to be challenging. National data sets are starting to become available however these cannot be accessed at the regional level. Local collaboration with the private sector to improve understanding of diverted material, and potentially local policy drivers (i.e. licencing through bylaws) could be considered as potential future options.

Capturing information on reduction and reuse of material is also unknown.

4.5.2 What are we doing well?

The 2018 WMMP had a total of 55 actions (Hastings District Council, 2018). Of those actions, 30 have been completed and 13 are on-track or underway (Table 4.2). Some of the actions that have been implemented are:

- New kerbside collection services with rubbish bins and rate-funded collection services aligned across the councils
- Assisted service where feasible for residents with physical restrictions or impairments
- Inclusion of a RFID chip in kerbside rubbish bins to reward households that produce low amounts of waste
- A permanent rural recycling site at Waipatiki
- Continuing to undertake the three yearly SWAP surveys
- Continued support of product stewardship
- New cell development at Ōmarunui Landfill providing local disposal capacity for the next 30 years
- Both the councils jointly fund and operate the annual Hazmobile collections providing free disposal for household hazardous waste
- Resource consent was granted in 2022 for the development of Area B for Ōmarunui Landfill
- Development of regional waste branding for education
- Established a regional C+D waste advisor role and began the construction of a C+D drop-off area at Henderson Road RTS.

Table 4.2: The status of the 55 actions from the previous 2018 WMMP

Status	Number of actions
Completed	30
On-track	13
Limited or no action	10
No longer required	2

4.5.3 Where could we improve?

There are still 10 actions with limited progress, partly due to lack of demand or limited engagement with relevant sectors. The main inactions are:

- Investigating options to allow for properties not serviced to utilise a local drop off facility for waste
- Investigating the location and operation of transfer stations
- Investigating options for diversion of organic waste
- Public place recycling (due to contamination issues)
- Supporting Hawkes's Bay healthcare establishments
- Rewarding waste minimisation behaviour across the community
- Partnering and build relationships to enable stakeholders
- Reviewing landfill pricing to include material specific pricing
- Monitoring behaviour change.

Key factors impacting the progress of WMMP actions have included:

- Covid-19 pandemic
- Cyclone Gabrielle response and recovery
- Staff changes.

4.5.4 Previous WMMP targets

The 2018 WMMP had two targets to measure progress with the actions

1 20 per cent total tonnage increase in common recyclables diverted from Ōmarunui Landfill

2 30 per cent total tonnage decrease in organics to Ōmarunui Landfill.

The performance against these targets is provided in Table 4.3.

While not quite achieved, the target of increasing common recyclables diverted by 20 per cent did increase by 15 per cent on the 2016/2017 baseline.

The target of decreasing organics to landfill by 30 per cent by 2024 has not been achieved. In 2022/2023 there was an 8 per cent increase in organics disposed to landfill since the baseline financial year of 2016/2017. However, this has been due mainly to the increased disposal of special wastes that have no other alternative disposal option than landfill. When special waste is removed, there has been an 11 per cent reduction.

The progress towards targets aligns with progress on related actions in these areas and reflects the changing environment where the councils have had little control (i.e. pandemic, cyclone, slow pace of regulated product stewardship, deferment of CRS, and commercial sector waste).

Table 4.3: The 2018 WMMP targets for recyclables and organic materials

Target	By when	Baseline (2016/17)	Target	2022/23	Percentage increase
20 per cent total tonnage increase in common recyclables diverted from Ōmarunui Landfill	2024	9,800	≥ 11,760	11,232	15% increase
30% total tonnage decrease in organics to Ōmarunui Landfill	2024	28,580	≤ 19,150	30,788 Special waste included	8% increase
				25,438 Special waste excluded	11% reduction

5 Issues, gaps and future demand

5.1 Summary of current circular activity and gaps

This section has provided an overview of the local waste system in the context of national strategy for the councils and how these link to key issues and opportunities for the next WMMP.

Te rautaki para|Waste strategy provides clear direction for Aotearoa New Zealand to shift to a circular economy with ambitious targets for 2030 in relation to waste and emissions reduction. However, the pending review of the WMA creates some uncertainty on the future legislative context. Key areas that the councils need to plan for include:

- Māori and mana whenua partnerships
- Kerbside standardisation including food scraps collections
- Data collection and reporting requirements
- Implications from regulated product stewardship schemes
- Waste disposal levy changes (both an opportunity with increased revenue, but also uncertainty regarding future allocation to territorial authorities)
- Contributing to an effective resource recovery infrastructure network (local and national)
- An increased focus on the importance of behaviour change programmes (local and national)
- Contaminated land and remediation.

A review of local waste infrastructure and services indicates waste infrastructure is provided from both the councils and the commercial sector. Current education and behaviour change approaches to support local services are having a positive impact on the community with waste per capita remaining stable or decreasing. However, the increasing population across both the council areas and little measurable progress on commercial waste minimisation is leading to an overall increase in waste to landfill each year. There are opportunities to:

- Prioritise services that support more circular activity (i.e. reduction and reuse), supported by education and behaviour change
- Utilise and strengthen partnerships with Māori and mana whenua organisations to inform waste management and minimisation
- Improve the capture of material for recycling and recovery at the kerbside, transfer stations, and the landfill
- Review the transfer station infrastructure and network to increase resource recovery
- Reduce emissions through a focus on key waste streams - organic waste, C+D waste, and commercial waste
- Improve collaboration to support solutions and research that minimises waste and develops a circular economy.

Alongside this, there are key challenges to progress, including:

- Ahuriri Napier and Heretaunga Hastings are facing a challenging economic climate and dealing with the impacts of climate change. This has caused financial restraints for the councils, making it difficult to action change
- Resilience and adaption to climate change will continue to be important with the ongoing recovery from Cyclone Gabrielle still evident
- Genuinely giving effect to the expectations and aspirations of all mana whenua groups is challenging to achieve given timeframes, and internal capability and capacity

- A large portion of landfilled waste from the commercial sector, where the councils have less visibility and direct influence
- There is also local recovery activity occurring but very little data to confirm the effectiveness of current systems and where future opportunities lie. This makes it difficult to effect change to the overall waste system, without collaboration across sectors, and organisations.

The strong food production and manufacturing sector in the region provides an opportunity to build on existing recovery infrastructure (paper/cardboard and organic recovery) and shift into a fully circular system. This requires the councils, local growers, manufacturers, processors, solutions providers and research organisations to work together. Sustainable is Attainable HB is an example of this in practice.

There is an opportunity to partner with mana whenua in the development of the WMMP and for waste management and minimisation activities in Heretaunga and Ahuriri to be guided by mana whenua going forward.

Some improvements to collecting data are needed to further identify opportunities and priorities. The main data gaps identified were:

- Council data collection is comprehensive but inconsistent between the councils
- Diverted materials from the private sector including recycling, organics and scrap metal
- Disposal in class 2-5 landfills (including cleanfills)
- Effectiveness of education programmes.

5.2 Forecast of future demand

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

- Increasing costs of waste disposal to landfill resulting from the waste levy expansion and Emissions Trading Scheme
- Changes resulting from Te rautaki para | Waste strategy including potential changes to the WMA, and requirements for territorial authorities
- The introduction of product stewardship schemes
- Activities and policy resulting from the Second Emissions Reduction Plan
- Increased commercial sector capacity to recycle and reprocess materials
- Changes to markets for materials
- Economic development in the region
- Export market demand and supply chain resilience
- Consumption behaviour.

5.3 Forward projections

Forecasts of waste generated have been developed using population projections and historic waste quantities. The forecasted recovery and disposal numbers are based on the 2023 waste per capita value and are then projected with population growth estimates. The projected recovery and disposal numbers are shown in Figure 5.1. The projections show that even if waste per capita remains the same, population growth will drive

an increase in waste generation in Heretaunga Hastings and Ahuriri Napier.

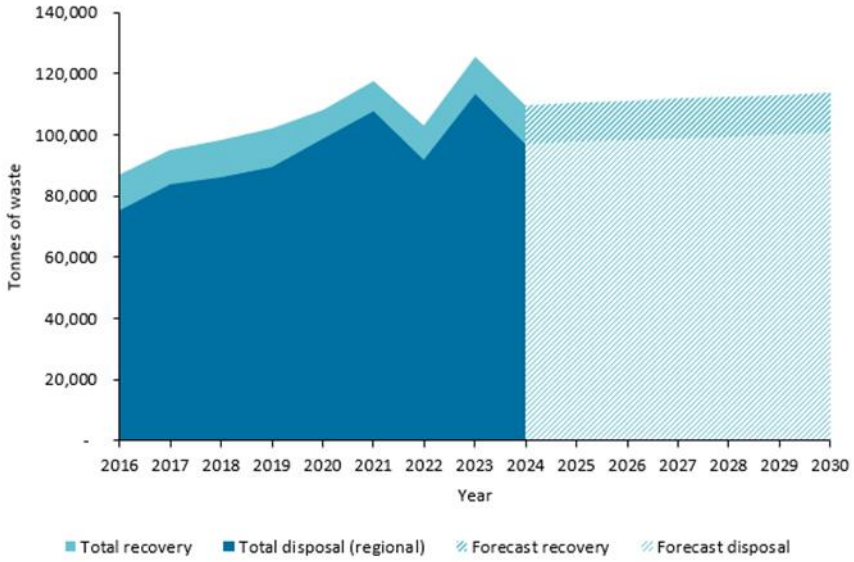

Figure 5.1: Projections of waste disposal and recovery out to 2030

5.4 Te rautaki para | Waste strategy targets

Te rautaki para | Waste strategy sets three national targets to be achieved by 2030 (Ministry for the Environment, 2023). This includes:

1 Waste generation: reduce the amount of material entering the waste management system, by 10 per cent per capita

2 Waste disposal: reduce the amount of material that needs final disposal, by 30 per cent per capita

3 Waste emissions: reduce the biogenic methane emissions from waste, by at least 30 per cent.

These targets have been set at a national level and therefore they may not accurately reflect the situation in Heretaunga Hastings and Ahuriri Napier.

If the national targets were to be adopted by the councils, waste generation will need to decrease from 800 to 720 kg per capita by 2030 (Figure 5.2). Waste disposal will need to decrease from 730 to 510 kg per capita by 2030 (Figure 5.2).

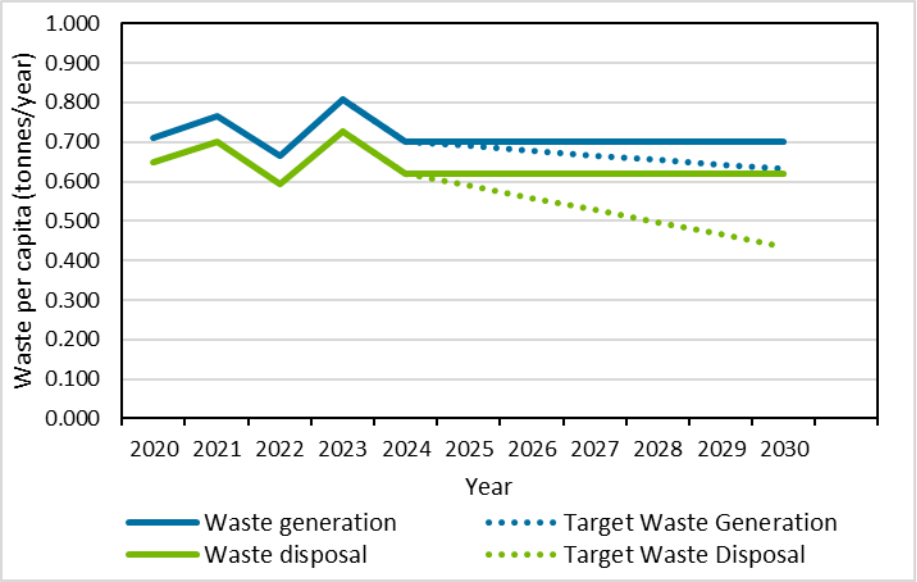

Figure 5.2: Waste disposal and generation, and target reduction based on national targets

5.5 Proposed kerbside standards

The Government has proposed minimum performance standards for kerbside collection that need to be met by the councils over the next six years. The 2026 performance target is 30 per cent recovery of material at the kerbside. Currently, 28 per cent of the councils' kerbside waste is diverted (Figure 5.3), close to the minimum standard.

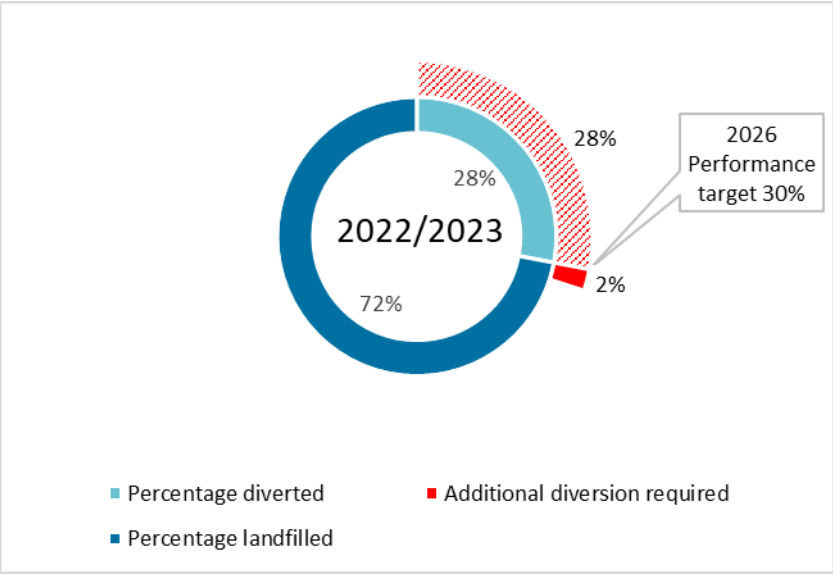

Figure 5.3: Kerbside diversion rate for the councils in comparison to the 2026 minimum diversion standards

However, when commercial kerbside collections are included, the diversion is 18 per cent, leaving a further 12 per cent more to be diverted to reach the proposed minimum standards (Figure 5.4). It is likely that a portion of commercial collections is business rather than residential waste (and therefore not included in the performance standard). The portion of commercial collections and the level of diversion of waste occurring is unknown. This highlights a common theme throughout the report that the councils have less influence over commercial waste. Options to address this could be considered in Section 1.

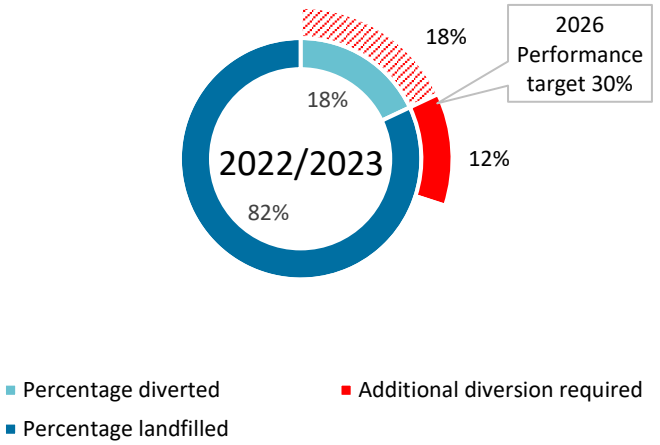

Figure 5.4: Kerbside diversion rates for the councils in comparison to the 2026 minimum diversion standards including private collections

There are further diversion rates required by 2028 and 2030 that the councils would need to meet under the proposed minimum standards (Figure 5.5). Under the 2028 standard, 40 per cent of material would have to be diverted and 50 per cent by 2030. The 2028 and 2030 targets will require a plan to recover more materials such as organic waste collections and better capture of recycling.

The introduction of some regulated product stewardship schemes (i.e. plastic packaging) or a CRS may also impact on the ability of councils to achieve these minimum standards.

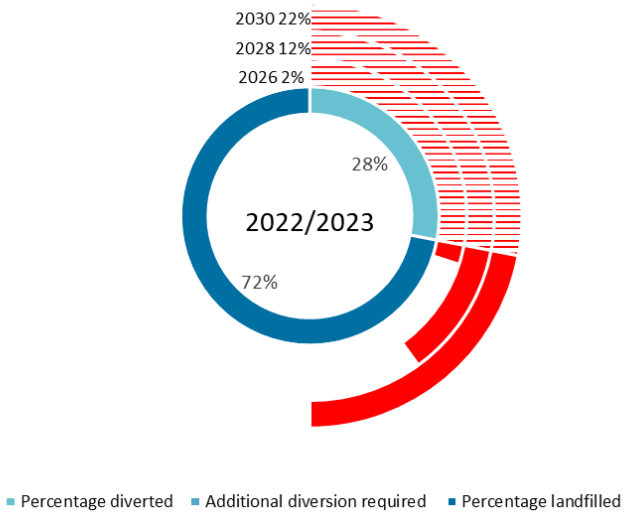

Figure 5.5: The percentage of material diverted in 2023 and the required diversion to reach the 2026, 2028 and 2030 proposed kerbside standards

The options available to the councils and preferred range of initiatives are considered in Section 7.

Part 2 - Where do we want to be?

6 Strategic framework

6.1 Introduction

This section introduces the approach to developing the vision, goals, objectives, and targets (strategic framework) for waste management and minimisation in the Hastings district and Napier city. Together, the vision, goals, objectives, and targets establish the planning foundations for the waste management and minimisation plan (WMMP).

The relationship between vision, goals and objectives is illustrated in Figure 6.1.

Figure 6.1: Vision, goals, objectives, and targets (Ministry for the Environment , 2015)

6.2 Approach to developing the strategic framework

6.2.1 Key drivers

There are a number of key drivers that influence the future direction of waste management and minimisation:

1 Alignment with the vision and goals of Te rautaki para|Waste strategy

2 Partnership with mana whenua

3 The existing WMMP strategic framework

4 Community visions for Heretaunga Hastings district and Ahuriri Napier city

5 The focus and priorities of the Joint Waste Futures Committee.

6.2.2 What the community have told us

During the development of this waste assessment, pre-engagement with the community on what was important for waste was undertaken through Social Pinpoint. Nearly 300 comments were received from the community and the key feedback themes are summarised in Figure 6.2. There was support for a focus on waste minimisation and circular economy approaches, but a strong focus on recycling when compared to the waste hierarchy (Figure 6.3).

Alongside the pre-engagement further sector specific engagement is planned, particularly with the commercial sector and waste service providers.

Figure 6.2: Key themes from community engagement in June 2024

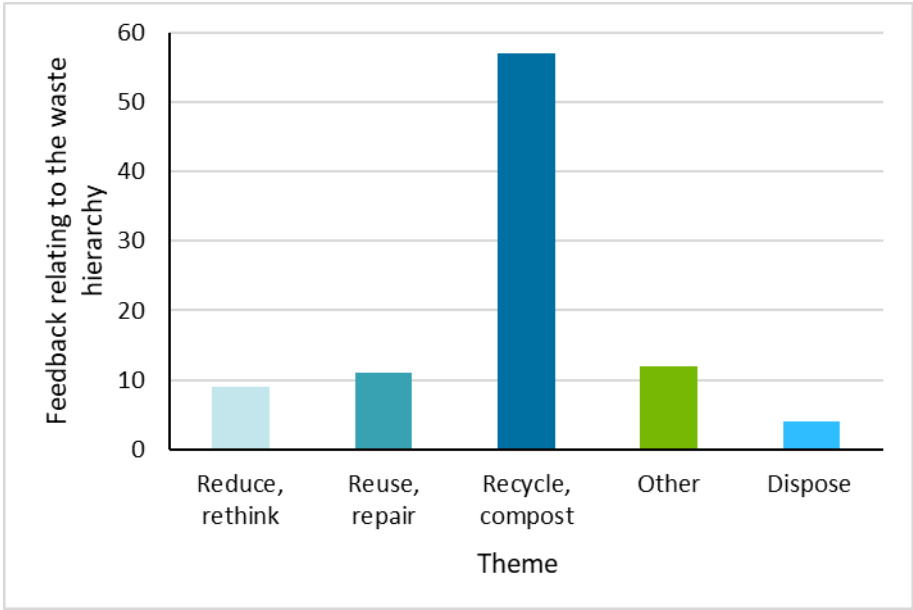

Figure 6.3: Feedback themes in relation to the waste hierarchy

6.3 Joint Waste Futures Committee

The Joint Waste Futures Committee have responsibility for setting the direction for waste activities and overseeing the implementation of the WMMP. The Committee has a desire to strengthen partnerships with Māori and mana whenua to form and pursue collective aspirations for the future of waste management and minimisation. What that partnership looks like is yet to be determined but the intended approach is provided in the next section. While initial steps are taken to strengthen relationships with mana whenua and create a foundation for a future of genuine partnership, the Committee has proceeded to establish a strategic framework that reflects the Committee's views and captures their dream of a partnered future.

Based on the key drivers, and information provided through the analysis of the current waste situation, the Joint Waste Futures Committee drafted a vision and goals over two workshops with council officers. The strategic framework from the existing WMMP was discussed alongside that of Te rautaki para|Waste strategy. An updated vision and goals were developed reflecting the local context and aligning with Te rautaki para |Waste strategy. Council officers then drafted detailed objectives to align with the draft vision.

Figure 6.4 outlines the Joint Waste Futures Committee's draft vision, four goals and 10 objectives.

Figure 6.4: Draft Strategic Framework by Joint Waste Futures Committee

6.4 Approach to strengthening mana whenua partnership

Napier City and Hastings District Councils both have teams dedicated to nurturing Māori partnerships. These teams are a key internal resource for the WMMP project team due to their wealth of expertise and experience, and collective of strong relationships with mana whenua across the region. The Māori partnerships teams are crucial in supporting the development process for the strategic framework of the WMMP by supporting the project team with appropriate pathways for engaging mana whenua as well as leveraging their own relationships to further the waste management and minimisation kaupapa.

In 2023, HDC demonstrated another step toward fostering partnership and created a role that is the first of its kind in local government in Aotearoa New Zealand. That role, Mātanga Mukupara (Waste Minimisation Specialist) has a strong focus on strengthening relationships with mana whenua partners to inform our joint future of waste management and minimisation. This role, within the technical space of the project team and in collaboration with the Māori Partnerships teams of both the councils, provides a strong foundation for HDC and the joint WMMP to move forward in an enhanced manner.

The foundation above provides a promising outlook to enhancing partnership and gaining mana whenua input and guidance for developing this WMMP and the future of waste for both the councils. However, the internal expertise, experience, and existing partnerships (for other kaupapa) provide coherence when navigating this growing partnership as opposed to concrete strategies. The rationale for this is that the partnership itself, like the outcomes it seeks to achieve, should be responsive and reciprocal. Meaning, genuine partnership should be jointly determined by all participating parties, rather than prescribed by one. To begin this, the project team has been carrying out initial engagements with mana whenua partners. These initial engagements, which are still underway during the development of this waste assessment, intend mainly to secure relationships with mana whenua to then begin jointly determining what a partnered future looks like.

It cannot yet be stated what the aspirations or expectations of mana whenua are for this WMMP or the longer-term waste management and minimisation journey. However, the councils, as Te Tiriti partners in their own right, are deeply invested in the co-creation of a partnered future. The hope is that through partnership, the councils' ability not only to comply with their governing legislation and regulation, but deliver strong waste minimisation practices, is enhanced by genuinely and seamlessly incorporating the knowledge and guidance that mana whenua deems appropriate.

Without determining the future, a simple model of the approach is included in Figure 6.5 as an indication of the intention. This should be perceived as flexible and responsive to the needs or expectations of the mana whenua partners of either or both Councils.

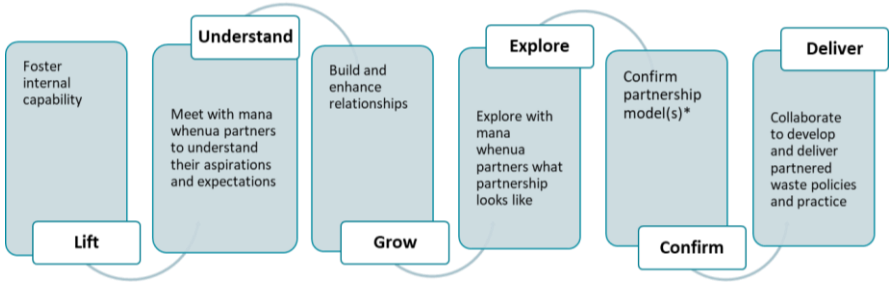

Figure 6.5: Approach to strengthening mana whenua partnership

* The model for partnership may be unique for different mana whenua partners. They can't be expected to all share the same aspirations and expectations

6.5 Confirmation of strategic framework

The final strategic framework will be subject to the approach determined with mana whenua and also consultation with the wider community as part of the WMMP consultation.

6.6 Proposed targets

Given the alignment of the draft strategic framework with Te rautaki para |Waste strategy the national targets have also been proposed for local application, adjusted and informed by the priority actions identified in Section 7.6. The following targets are proposed:

Table 6.1: Proposed targets

Targets	Baseline (2023)	Target (2030)
Waste generation:		
Reduce the amount of material entering the waste management system by 10 per cent per capita	702 kg/capita/year	631 kg/capita/year
Waste disposal:		
Reduce the amount of material that needs final disposal by 30 per cent per capita	621 kg/capita/year	435 kg/capita/year
Waste emissions:		
Reduce the biogenic methane emissions from waste by at least 30 per cent	31,358	21,950

Note: 2023 baselines exclude flood waste

Performance standards, specific to national kerbside standardisation, have also been proposed by Central Government, which the councils must aim to achieve. Of the total household waste placed at kerbside, Councils will need to divert:

- 30 per cent by 2026
- 40 per cent by 2028
- 50 per cent by 2030.

Part 3 - How are we going to get there?

7 Options identified

7.1 Introduction

Section 51 of the WMA requires that the waste assessment contains a statement of options available to meet the forecast demands of the region with an assessment of the suitability of each option.

This section summarises the identification and evaluation of options to meet the forecast demands of the region and to meet the goals and targets set out in Section 6. The process started by identifying a wide range of possible options, or 'possibilities,' and agreeing on a set of evaluation criteria. The list of 'possibilities' have then been evaluated against the criteria to identify priority options. The priority options from this assessment will be incorporated into the draft WMMP Action Plan.

For the councils, the total quantity of waste generated is forecast to increase over the life of this plan as more residents utilise the council waste services offered, and economic activity and population growth in the region increases. The action plan needs to take account of these factors, while driving a reduction in total waste generated (whether recovered or landfilled) and a reduction in waste disposed to landfill.

7.2 Identifying options

There are a wide range of possible approaches that could be adopted by the councils to achieve, or work towards, their vision and goals. A useful way to consider how to make effective change is whether the option addresses infrastructure (including collection), education/information and regulation/policy. These are supported by having the right data to inform strategic and operational decision making.

Ensuring the councils are in a good place to transition to a circular economy involves considering materials through their entire life cycle, through production, product design, use and disposal. Maximising the value of materials recovered through waste minimisation and management activities, and actively collaborating with the community and private sector, are important when making this transition. Figure 7.2 details the components of councils' contribution to a circular economy with multiple elements in place to set strong foundations for success.

The influence of national policy, local policy, infrastructure, and education sit across different areas of the circular economy (Figure 7.1).

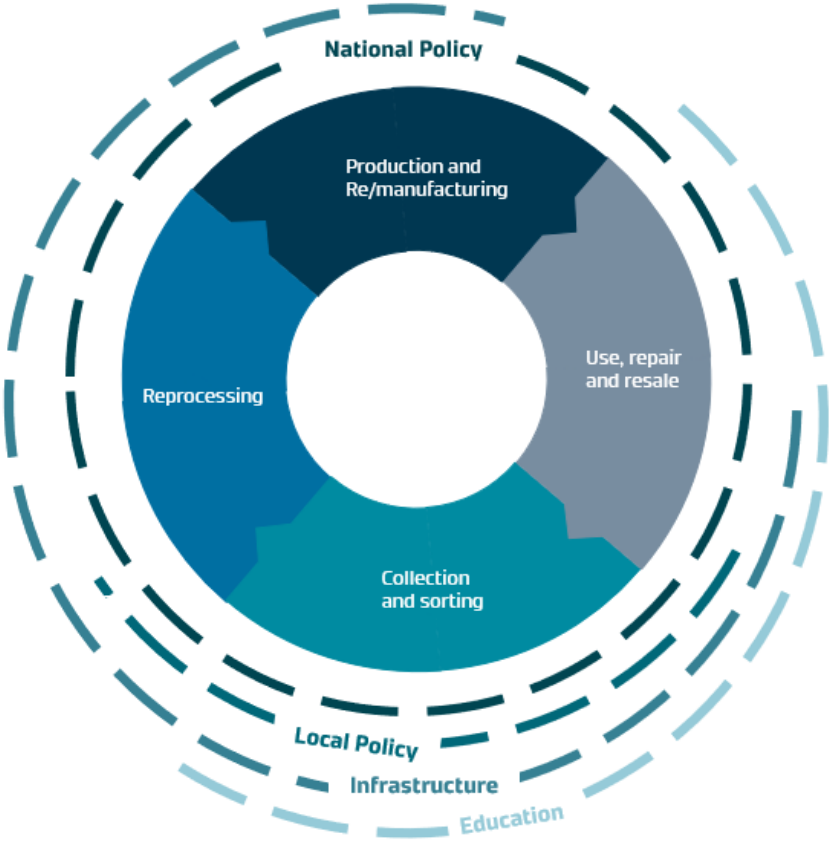

Figure 7.1: Level of influence of change levers in the circular economy framework

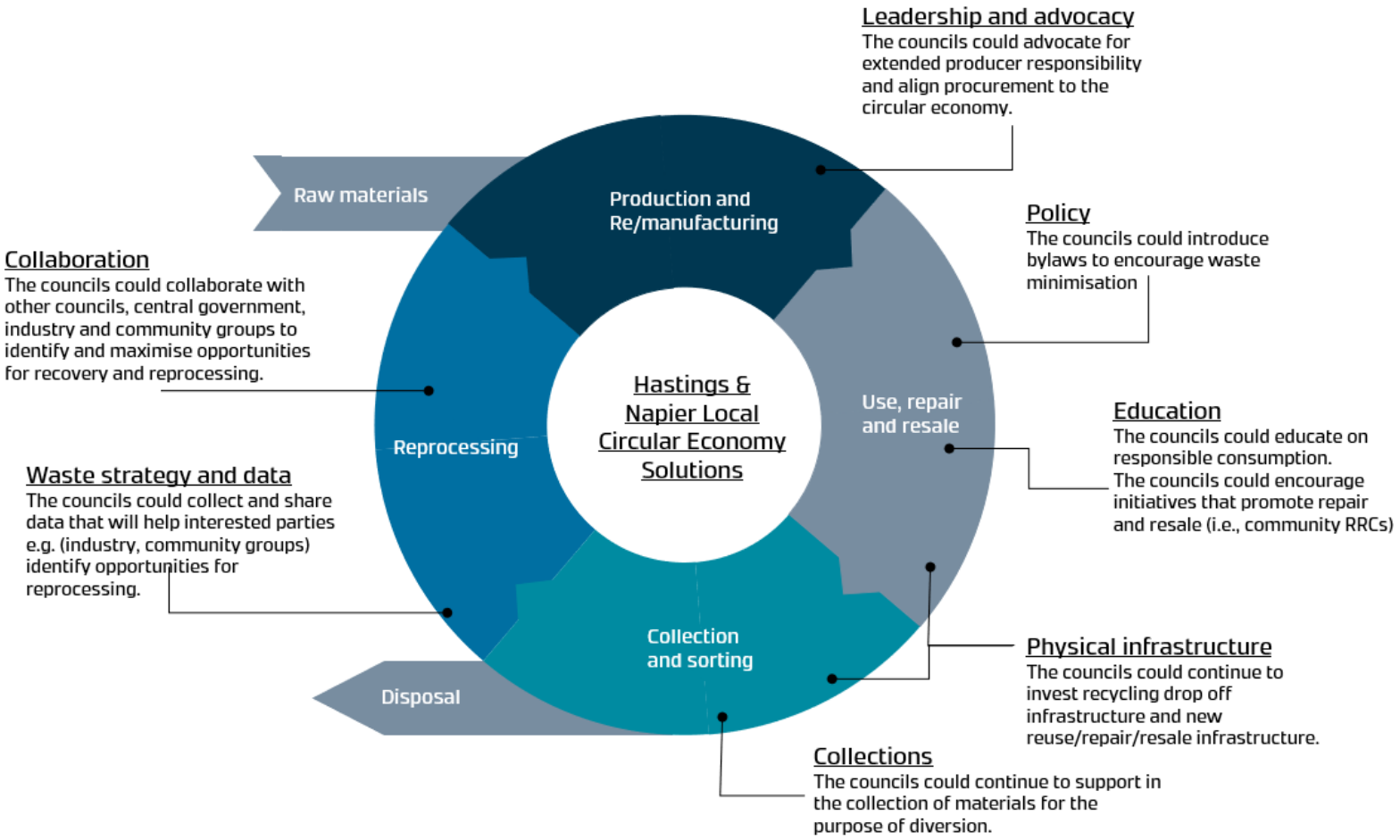

Figure 7.2: Components of the councils contribution to a local circular economy

7.3 Possibilities for the councils

From the assessment presented in Part One of this document the following key focus areas have been identified:

1 Mana whenua partnership and giving effect to te ao Māori
2 Driving change in a challenging economic climate
3 Understanding materials flows to Class 2-5 disposal facilities
4 Climate change (adaptation and mitigation)
5 Data gaps and technology
6 Anticipating and responding to future national policy changes
7 Increasing recovery of materials
8 Addressing infrastructure gaps
9 Limited council influence on large portion of commercial waste
10 Driving local circular initiatives.

To make progress towards the vision and goals, actions or opportunities have been identified and could be implemented in a number of ways. This document refers to these as the possibilities. These possibilities build on existing, and already planned, activities.

To develop pathways for circularity for the councils and to achieve effective change in each of the focus areas (Table 7.1), there would ideally be a combination of possibilities covering:

- Policy (e.g., central government policy, local bylaws)
- Infrastructure (e.g., regional disposal facilities, transfer stations, kerbside collections, signage)
- Education (e.g. targeted education and behaviour change programmes).

Policy and governance interventions across all the focus areas will likely include mana whenua partnership possibilities. This approach can be explored as relationships develop, and a specific focus area for mana whenua partnership within this waste assessment provides an opportunity to capture this within the WMMP.

Table 7.1 sets out a list of possibilities, using this three-pronged approach, with consideration given to:

- The current activities in place
- Planned changes still to be implemented and budgeted for
- Possibilities - future options not currently planned.

The list of possibilities is tested against the applicability for the councils using the evaluation criteria in Section 7.4. This evaluation determines whether it will be a priority option.

Table 7.1: Possible options development in line with current and planned activities

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
Mana whenua partnership and giving effect to te ao Māori	Policy & Governance 	• Upskill in Te Tiriti, partnerships and tikanga and how this relates to circular economy and waste minimisation.		• Give effect to the role of mana whenua in decision making processes as Te Tiriti partners and establish opportunities for collaboration • Build on organisational capability to enhance our relationship with mana whenua partners, utilising mātanga mukupara (HDC) to engage with mana whenua, hapū and marae.
	Infrastructure & Services 			• Support mana whenua to establish circular economy initiatives.
	Education & Behaviour Change 	• Increase awareness of waste management and minimisation within Māori communities in Heretaunga Hastings and Ahuriri Napier e.g. waste kaupapa series.	• Engage with Māori organisations (i.e. Para Kore) to identify opportunities for collaboration and education.	• Support the development of waste plans for marae and Māori organisations.
Driving change in a challenging	Policy & Governance 	• Maintain LTP funding for current levels of service.		• Publicise diverse funding sources including funding focused on innovation, waste reduction, and environmental and social outcomes.

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
economic climate	Infrastructure & Services	• No significant change to services provided by councils.		• Leverage the waste levy expansion by submitting applications to the WMF, targeting priority waste streams, or resource recovery network infrastructure • Evaluate alternative models to finance, govern and deliver infrastructure • Collaborate with commercial sector to identify co-investment opportunities.
	Education & Behaviour Change	• Leverage national initiatives and programmes (e.g. LFHW) locally to provide the community with consistent information and maximise value for money • Collaborate across councils to deliver waste education and behaviour change programmes.		• Collaborate with other organisations to maximise education and behaviour change opportunities.
Understanding materials flows to Class 2-5 disposal facilities	Policy & Governance			• Investigate contaminated soil material flows and identify opportunities to reuse soil beneficially.
	Infrastructure & Services	• C+D area (area E) at Ōmarunui (currently used for asbestos).		

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
	Education & Behaviour Change 			• Engage with commercial sector to better understand class 2-5 landfill activity and data and encourage diversion away from all landfill facilities (1-5).
Climate change (adaptation and mitigation)	Policy & Governance 	• Support waste related initiatives identified in climate change policy including: – Eco District Strategy (HDC) – Emissions reduction plan (NCC, HBRC) – Regional climate risk assessment.	• Establish and review processes for emergency waste management and business continuity • Develop a climate policy framework (HDC)	
	Infrastructure & Services 	• Effectively manage and fund Ōmarunui Landfill to ensure that emissions from waste are efficiently managed and reduced • Monitor, manage, maintain and report on closed landfills to ensure that consent conditions are met.	• Complete an assessment of the condition of all closed landfills with a focus on climate change impacts • Review the business continuity plan for Ōmarunui Landfill biennially.	• Include an evaluation of climate change impacts in all feasibility and design work for waste infrastructure • Set emissions targets and reporting requirements for all Council contractors as part of the procurement / contract management process.
	Education & Behaviour Change 	• Deliver waste education programmes focused on organic material and timber.		• Support businesses with initiatives that minimise waste as well as reduce emissions.

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
Data gaps and technology	Policy & Governance 	• Undertake a regional SWAP survey of kerbside, transfer station and landfill composition every 3 years • Build a data warehouse for Council waste management data with a focus on automation and streamlined reporting.	• Pilot innovative data management solutions that reduce resourcing pressure • Resource appropriately for data collection and reporting that is aligned to national requirements.	• Review the effectiveness of local licensing of waste transporters and facility operators to obtain data on waste and material flows in the region (should a national approach not provide the required data quality) • Use technology to engage households in collecting and accessing data related to kerbside collections, litter and resource recovery • Resource a regional officer role specific to waste data and technology • Promote and partner with technology providers reducing organic waste at source (e.g. Foodprint, depackaging solutions) or for data gathering • Promote and partner with technology providers that facilitate sharing, reuse and recycling for C&D, or for data gathering.
	Infrastructure & Services 	• Weighbridges at council RTS • RFID tags on kerbside wheelie bins • Continue to stay informed of alternative technologies for waste disposal or recovery.		• Stay abreast (including research) of emerging opportunities and innovation for the reduction, recovery, treatment and disposal of materials in line with national policy direction and the waste hierarchy.
	Education & Behaviour Change	• Use of Council websites, and social media platforms to ensure information is accessible.	• Develop joint waste branding and a collaborative website.	

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
		• Sustainable is Attainable as a platform for data gathering or sharing.		
Anticipating and responding to future national policy changes	Policy & Governance 	• Advocate to central government on policy that supports waste minimisation and the circular economy • Prepare submissions to Central Government for policy impacting on C+D waste informed by our community • Prepare submissions to Central Government for policy impacting on organic material management informed by our community and local context • Regularly attend and support regional and national hui to ensure we are kept informed, learn from others and can contribute to development of national initiatives • Participate in development of future product stewardship schemes to ensure the position of TAs is communicated and considered in scheme design.	• Engage and align with other regulators (including regional council, other TAs and central government) to ensure effective implementation of policy and controls.	• Review internal council process and methods to enable efficient and timely submissions on central government policy • Respond to future Building Act changes in relation to the requirement for waste minimisation plans as part of building consents.
	Infrastructure & Services		• Review staff resourcing biennially with a focus on delivering WMMP actions and achieving Central Government requirements.	• Assess the role of transfer stations in supporting proposed product stewardship schemes e.g. Tyrewise.

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
				• Introduce organics services in line with proposed national standards • Complete a feasibility study to determine best option for diverting organic waste.
	Education & Behaviour Change 	• Update council information and collateral to reflect national policy including product stewardship schemes.		
Increasing recovery of materials	Policy & Governance 	• MfE Waste and resource recovery infrastructure road map (also in infrastructure gaps).	• Build relationships with external stakeholders who are working to recover materials at their highest value to identify opportunities to increase recovery • Review pricing at landfill and transfer stations to incentivise and generate more opportunities to divert commercial waste into reuse, recycling and recovery • Complete review of bylaws and implement changes that will support use of infrastructure based on engagement with elected members and community.	• Consider bylaw controls that will support the reduction or recovery of key waste streams (e.g. organics, C&D).

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
	Infrastructure & Services 	• Complete construction of C&D improvement project at Henderson Road Transfer Station • Provide opportunities to divert recyclable materials, and safe disposal options for difficult to dispose of items e.g. e-waste, tyres, polystyrene through the transfer station network • Continue to provide rural recycling stations for standardised recyclables in the absence of product stewardship schemes • Recover clean and high value divertible materials from the kerbside and at transfer stations where there are viable end markets • Service urban areas with kerbside collections in line with standardisation requirements set by central government • Review provision and delivery of annual hazmobile collection for households • Provide a household e-waste recycling service in the absence of product stewardship schemes.	• Investigate specific recovery/diversion opportunities for construction materials. Investigate options to provide increased capacity for households generating large quantities of recyclable materials.	

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
	Education & Behaviour Change 	• Continue education programmes to ensure council services are used to maximise waste minimisation and resource recovery • Utilise contractors to educate households that present non-complying kerbside bins and crates • Update A-Z waste guide to promote available recovery services • Support Hawke's Bay healthcare and aged care facilities in practical waste management and minimisation.	• Develop education or behaviour change programmes for commercial and rural sectors.	
Addressing infrastructure gaps	Policy & Governance 	• Landfill license conditions for use of Ōmarunui Landfill • Complete solid waste activity plans to assess the condition and effectiveness of waste infrastructure • MfE Waste and resource recovery infrastructure road map.		• Collaborate with wider Hawkes Bay stakeholder group to implement recommendations from the Waste and Resource Recovery Infrastructure Roadmap • Investigate status of regional and national waste infrastructure activity including landfill closures and capacity, bans on materials, gate rates to assess risks or opportunities for Ōmarunui Landfill.
	Infrastructure & Services 	• Complete construction of additional regional landfill capacity • Flat glass recycling hub.	• Complete a feasibility study to determine targeted improvements to transfer station network and (if appropriate) implement recommendations.	• Investigate and (if feasible) develop a Regional Recovery Park to provide a circular activity destination that caters for city, commercial and district/rural communities.

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
				• Support / expand existing organic processing by collaborating with the commercial sector • Upgrade existing transfer stations (Henderson Road and Redclyffe) to focus on increased reuse, repair and recovery opportunities including for commercial waste streams • Undertake a review of transfer station facilities in Napier city • Review kerbside services based on demand, accessibility and equity for households outside the existing collection area, multi-unit dwellings and new developments • Undertake a scoping study including community engagement for additional rural recycling stations including Bayview.
	Education & Behaviour Change 	• Collaborate across councils to deliver waste education and behaviour change programmes.		
Limited council influence on large portion	Policy & Governance 		• Facilitate an industry focus group, e.g. food processors and producers, and retail, to inform submissions, share best practices, and engage with the sector.	• Work with waste operators and transport companies to divert organic materials from landfill

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
of commercial waste			• Build relationships with the producers of waste, particularly in horticulture and food manufacturing sectors, to better understand commercial sector waste flows in the region and identify opportunities to reduce waste • Engage in waste sector working groups to highlight regional issues and understand solutions.	• Investigate and map the material flows in the regional circular economy to identify opportunities to shift to a more circular approach.
	Infrastructure & Services 	• Commercially operated MRF for C&D.		• Explore options with commercial sector to increase storage and recovery for commercial volumes of materials and items for reuse.
	Education & Behaviour Change 	• Facilitate a C&D focus group to inform submissions, share best practices, and engage with the sector • Support Sustainable Is Attainable.		
Driving local circular initiatives	Policy & Governance 	• Enable the community to undertake more circular activity through contestable funding using waste levy revenue • Provide a rebate for low-waste producers using the kerbside collection service.		• Evaluate frameworks and formal governance arrangements to enable more collaboration on waste and circular economy as a region • Implement circular economy principles in council operations e.g. deconstruction of council assets

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
				• Develop an internal circular economy policy that prioritises designing out waste, utilising recovered materials and supports the local circular economy via their procurement • Review framework to award waste levy contestable funds, exploring the possibilities of pooling levy funds, or providing diversified funds to enable circular activity • Support waste minimisation and circular approaches to events through bylaw requirements for event waste minimisation plans.
	Infrastructure & Services 	• Actively engage with local recycling markets to identify opportunities to collaborate and strengthen local recycling markets • Provide bins and event recycling trailer for event waste to facilitate sorting of materials and normalise waste minimisation in the local event industry • Reuse shop at Henderson Road RTS.		• Support trials for organic material recovery e.g. community composting network, localised anaerobic digestion • Support trials for C&D recovery e.g. solutions for timber, plasterboard & concrete, on demand collections, providing containers for recycling on building sites.
	Education & Behaviour Change 	• Continue to provide a regional C+D waste advisor working across Ahuriri Napier and Heretaunga Hastings.	• Establish a regional waste education officer role to enable waste and circular economy education across both HDC and NCC.	• Research and develop a programme to formally recognise local circular economy champions in industry.

Focus area	Intervention	Current What is happening now?	Planned What is planned to happen?	Possibilities What opportunities are there to improve?
		• Work with local partners to facilitate education sessions, focus groups and networking events for the C+D sector • Provide education sessions at Te Whare Mukupara • Raise awareness for waste minimisation and circular activity through promotion at local expos and events • Attend environmental educators hui quarterly • Raise awareness for programmes and events that encourage waste reduction at source across social media, newsletters and advertising • Publish information using a variety of mediums to ensure waste management and minimisation services can be accessed by our diverse communities • Update the A-Z waste guide regularly to provide current information on reuse, recycling and disposal options for household and commercial volumes of materials.	• Share circular economy case studies in the region and facilitating business to business learning, and highlighting community groups • Regularly meet with sector stakeholders to discuss opportunities for collaboration to support circular activity within the region e.g. Hawke's Bay Chamber of Commerce • Engage with Hawkes Bay Tourism to understand opportunities to reduce waste in the local tourism industry • Develop and deliver a school waste education programme.	• Research and develop a programme to formally recognise local circular economy champions in the C+D sector • Evaluate and update education and engagement strategy biennially • Deliver behaviour change programmes using a research-based approach and quantify the impact of initiatives focusing on priority waste streams, and the co-benefits of waste programmes for climate change, public health and social impact.

7.4 Prioritising options

7.4.1 Workshop with council staff

To assess the feasibility of the possibilities listed in Table 7.1, a workshop took place with council staff representing the waste and resource recovery teams for each district. The focus areas were reviewed to ensure the key themes were aligned with the challenges and opportunities the councils currently face. The current and planned activities under each focus area was then reviewed to ensure all the work to date had been captured. A review of the possibilities then took place by focus area, with Council Staff amending specific actions required by the Possibility and adding additional options where required.

7.4.2 Evaluation criteria

As not all the possibilities can be implemented within budget and resource constraints, nine evaluation criteria (explained in Appendix 0) have been developed to assist the councils' decision making on priority areas for investment and confirm what actions can be proposed in the draft Joint WMMP. The criteria have been developed to align with the proposed vision and goals and have been weighted based on importance for this analysis.

Each possibility is rated as either high, medium or low for each criterion based on the outcomes that can be achieved (Table 7.2). They are colour-coded using a traffic light system (i.e., 'low' is red, 'medium' is orange and 'high' is green) with a score applied. The individual "raw" criteria scores are then adjusted based on the weighting for that criterion. The sum of all criteria weighted scores becomes the overall weighted score for the possibility.

Table 7.2: Rating and weighting key

Colour	Rating	Score
	High	3
	Medium	2
	Low	1

7.5 Evaluation

The evaluation of all possibilities from Table 7.1 are detailed in Appendix A4. Those possibilities which rate higher (2.25+) show greater alignment with the vision and goals and therefore, are recommended to be considered as an option for action in the WMMP (Table 7.3).

Table 7.3: Overall prioritisation guide

Colour	Overall weighted score	Priority
	2.25-3	Option recommended to be taken forward as priority option in the WMMP.
	1.75-2.25	Options to be considered to be taken forward into WMMP.
	1-1.75	Options may not be taken forward into the next WMMP but may be considered for future WMMPs or after the priority actions have been achieved.

7.6 Priority options and actions

Once the list of possibilities was evaluated, a list of priority options emerged.

The next stage of assessment (the Shortlist Assessment) identifies actions of high priority (Table 7.5). Where the options complement or align with other options these have been grouped into Focus Areas (by initial issue or challenge identified in section 7.2). Each of the options identified will contribute in some way to circular outcomes for the Ahuriri Napier and Heretaunga Hastings with additional benefits where an integrated programme is delivered.

The goals which the priority options are assessed against during the Shortlist Assessment include:

- Goal 1: Enhance partnership with mana whenua, communities and the commercial sector to improve resource recovery and diversion from Ōmarunui Landfill
- Goal 2: The building blocks are in place to enable change
- Goal 3: More activity is circular, and we produce less waste
- Goal 4: Emissions and other environmental indicators are improving.

7.6.1 Role of local government in the circular economy

The WMA specifies that a waste assessment must consider how waste is managed and minimised, whether by local government, the commercial sector or through not-for-profit organisations. While local government agencies can become agents for the circular economy as managers of waste and resource recovery services for their communities, they may have limited direct influence over waste before it enters the waste management system or where it is generated by the commercial sector.

Opportunities for local government to enable the circular economy do exist beyond just waste activity and include councils' roles as:

- Designers/builders and maintainers of infrastructure and assets
- Community educators
- Legislators
- Drivers of economic development
- Facilitators of response to climate resilience and adaptation, and emissions reduction.

Based on the three key circular economy principles, Table 7.4 provides examples where council activities interface with an opportunity to reduce impacts and help move towards delivering restorative and regenerative outcomes through a circular economy approach.

Table 7.4: Role of local government in the circular economy

Circular economy principles	Council activities
Designing out waste and pollution	• Designing for low waste, low emissions outcomes and the most efficient amounts of energy, materials and other resources to be used in: – The building and maintenance of council assets – The delivery of council run activities • Driving community behaviour change to promote waste avoidance through conscious consumption[15] • Driving waste avoidance through purchasing goods and services with the least harmful impacts on the environment • Lobbying for responsible production including product stewardship and central government policy regulating producers.
Keeping products and materials in use	• Providing infrastructure that will maximise the recovery of materials for reuse or recycling • Mapping the key industry, businesses and markets within the region and collaborating to overcome shared challenges or identify higher value recovery activities • Using recovered or recycled material in council projects and infrastructure (where it meets the required standard or relevant building codes).
Regenerating natural systems	• Preserving and enhancing the natural and urban environment through environmental design of council provided infrastructure and services • Creating resource recovery pathways for returning nutrients back to the environment e.g., through enabling compost or mulch production and using recovered organic materials in operations • Creating opportunities for collaboration within the community to support the regeneration of natural systems e.g. community gardens, re-vegetation projects.

[15] Conscious consumption can be described as avoiding purchasing unnecessary items and purchasing products that have a positive social, environmental or economic impact.

The councils' intended roles are also detailed in the Shortlist Assessment. These roles include:

- Advocate/promote – to central government, community, or industry for change
- Regulator – to direct / govern the region / district
- Service provider – to host the service (infrastructure, programme, service)
- Collaborator/connector – to be the connecting party between groups
- Enabler – to guide and assist along with collect information to assist in decision making.
- Advisor – to support community groups, mana whenua, residents, industry and other.

Table 7.5: Shortlist assessment (priority options)

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
Mana whenua partnership and giving effect to te ao Māori	1. Upskill in Te Tiriti, partnerships and tikanga and how this relates to circular economy and waste minimisation	Current	R	G1, G2	Advocate, Service provider, Collaborator, Enabler, Advisor
	2. Give effect to the role of mana whenua in decision making processes as Te Tiriti partners and establish opportunities for collaboration	Future	R	G1, G2	Advocate, Collaborator, Enabler, Advisor
	3. Build on organisational capability to enhance our relationship with mana whenua partners, utilising mātanga mukupara to engage with mana whenua, hapū and marae	Future	R	G1, G2	Advocate, Service provider, Collaborator, Enabler, Advisor
	4. Support mana whenua to establish circular economy initiatives	Future	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor
	5. Increase awareness of waste management and minimisation within Māori communities in Heretaunga Hastings and Ahuriri Napier e.g. waste kaupapa series	Current	R	G1, G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	6. Engage with Māori organisations (i.e. Para Kore) to identify opportunities for collaboration and education	Planned	R	G1, G2	Advocate, Service provider, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	7. Support the development of waste plans for marae and Māori organisations	Future	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor
Driving change in a challenging economic climate	8. Publicise diverse funding sources including funding focused on innovation, waste reduction, and environmental and social outcomes	Future	R	G1, G2	Advocate, Service provider, Collaborator, Enabler
	9. Leverage the waste levy expansion by submitting applications to the WMF, targeting priority waste streams, or resource recovery network infrastructure	Future	R	G2, G3	Advocate, Collaborator, Enabler
	10. Evaluate alternative models to finance, govern and deliver infrastructure	Future	R	G1, G2	Service provider, Collaborator
	11. Leverage national initiatives and programmes (e.g. LFHW) locally to provide the community with consistent information and maximise value for money	Current	R	G1, G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	12. Collaborate across councils and with other organisations to deliver waste education and behaviour change programmes	Current/Future	R	G1, G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
Understanding materials flows to	13. Investigate contaminated soil material flows and identify opportunities to reuse soil beneficially	Future	R	G2, G4	Advocate, Collaborator, Enabler

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
Class 2-5 disposal facilities	14. Engage with commercial sector to better understand class 2-5 landfill activity and data and encourage diversion away from all landfill facilities (1-5)	Future	R	G1, G2	Advocate, Collaborator, Advisor
Climate change (adaptation and mitigation)	15. Support waste related initiatives identified in local climate change policy including: Eco District Strategy (HDC), emissions reduction plan (NCC, HBRC) and regional climate risk assessment	Current	R	G1, G2, G3, G4	Advocate, Service provider, Collaborator, Enabler, Advisor
	16. Establish and review processes for emergency waste management and business continuity	Planned	R	G2	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	17. Effectively manage and fund Ōmarunui Landfill to ensure that emissions from waste are efficiently managed and reduced	Current	R	G2, G4	Advocate, Service provider
	18. Monitor, manage, maintain and report on closed landfills to ensure that consent conditions are met	Current	R	G4	Advocate, Service provider, Collaborator, Enabler, Advisor
	19. Complete an assessment of the condition of all closed landfills with a focus on climate change impacts	Planned	R	G2, G4	Advocate, Service provider, Collaborator, Enabler, Advisor
	20. Include an evaluation of climate change impacts in all feasibility and design work for waste infrastructure	Future	R	G2, G3, G4	Advocate, Service provider,

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
					Collaborator, Enabler, Advisor
	21. Set emissions targets and reporting requirements for all Council contractors as part of the procurement / contract management process	Future	R	G2, G4	Regulator, Service provider, Advisor
	22. Deliver waste education programmes and support businesses with initiatives that minimise waste and reduce emissions (e.g. focused on organic material and timber)	Current/Future	R	G1, G2, G3, G4	Advocate, Service provider, Collaborator, Enabler, Advisor
Anticipating and responding to future national policy changes	23. Advocate to central government on policy (including support for the Local Government Waste Manifesto) that supports waste minimisation and the circular economy, including C+D and organic material.	Current	R	G2	Advocate, Collaborator, Enabler, Advisor
	24. Regularly attend and support regional and national hui to ensure we are kept informed, learn from others and can contribute to development of national initiatives (including supporting WasteMINZ TAO collaborative fund)	Current	R	G1, G2	Collaborator, Enabler, Advisor
	25. Regularly attend and support regional and national hui to ensure we are kept informed, learn from others and can contribute to development of national initiatives (including supporting WasteMINZ TAO collaborative fund)	Current	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	26. Engage and align with other regulators (including regional council, other TAs, and central government) to ensure effective implementation of policy and controls	Planned	R	G1, G2	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	27. Review internal council process and methods to enable efficient and timely submissions on central government policy	Future	R	G2	Advocate, Collaborator, Enabler, Advisor
	28. Respond to future Building Act changes in relation to the requirement for waste minimisation plans as part of building consents	Future	R	G2, G3, G4	Advocate, Regulator, Service provider, Advisor
	29. Assess the role of transfer stations in supporting proposed product stewardship schemes e.g. Tyrewise	Current	R	G2, G3	Advocate, Service provider
	30. Review staff resourcing biennially with a focus on delivering WMMP actions and achieving central government requirements	Planned	R	G2, G3	Service provider
	31. Complete a feasibility study to determine best option for diverting organic waste	Future	R	G1, G2, G3, G4	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
Increasing recovery of materials	32. Build relationships with external stakeholders who are working to recover materials at their highest value to identify opportunities to increase recovery	Planned	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	33. Complete review of bylaws and implement changes that will support use of infrastructure and recovery of key waste streams	Planned/Future	R	G2, G3, G4	Regulator, Service provider, Collaborator, Enabler, Advisor
	34. Review pricing at landfill and transfer stations to incentivise and generate more opportunities to divert commercial waste into reuse, recycling and recovery	Future	R	G2	Regulator, Service provider
	35. Complete construction of C&D improvement project at Henderson Road Transfer Station	Current	HDC	G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	36. Provide opportunities to divert recyclable materials, and safe disposal options for difficult to dispose of items e.g. e-waste, tyres, polystyrene through the transfer station network	Current	R	G3, G4	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	37. Provide kerbside, transfer station and rural recycling services to recover high value divertible material where there are viable end markets, are in line with standardisation requirements set by central government, or where there are no product stewardship schemes i.e. e-waste	Current	R	G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	38. Provide a rebate for low-waste producers using the kerbside collection service	Current	R	G2	Regulator, Service provider, Advisor
	39. Review provision and delivery of annual hazmobile collection for households	Current	R	G2, G4	Service provider, Collaborator

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	40. Investigate specific recovery/diversion opportunities for construction materials	Planned	R	G2, G3	Service provider, Collaborator, Enabler, Advisor
	41. Continue and expand education programmes to maximise use of council services and support commercial and rural sector	Current/Planned	R	G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	42. Utilise contractors to educate households that present non-complying kerbside bins and crates	Current	R	G3, G4	Regulator, Service provider, Advisor
	43. Support Hawke's Bay healthcare and aged care facilities in practical waste management and minimisation	Current	R	G1, G2, G3, G4	Advocate, Collaborator, Enabler, Advisor
Addressing infrastructure gaps	44. Compete solid waste activity plans to assess the condition and effectiveness of waste infrastructure	Current	R	G2, G4	Service provider
	45. Investigate status of regional and national waste infrastructure activity including landfill closures and capacity, bans on materials, gate rates to assess risks or opportunities for Ōmarunui Landfill	Future	R	G2, G4	Advocate, Regulator, Service provider, Enabler, Advisor
	46. Complete construction of additional regional landfill capacity	Current	R	G2, G4	Service provider
	47. Collaborate with wider Hawkes Bay stakeholder group to implement recommendations from the Waste and Resource Recovery Infrastructure Roadmap.	Future	R	G1, G2, G3, G4	Advocate, Regulator, Service provider,

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
					Collaborator, Enabler, Advisor
	48. Collaborate with wider Hawkes Bay stakeholder group to implement recommendations from the Waste and Resource Recovery Infrastructure Roadmap.	Future	R	G1, G2,G3,G4	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	49. Complete a feasibility study(s) for the transfer station network: - in Napier city - across HDC/NCC network to determine targeted improvements to increase reuse and recovery (including C&D)	Future	R	G1, G2, G3, G4	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	50. Investigate development of a Regional Recovery Park to provide a circular activity destination that caters for city, commercial and district/rural communities (note implementation will be in future plans)	Future	R	G2, G3	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	51. Review kerbside services based on demand, accessibility and equity for households outside the existing collection area, multi-unit dwellings and new developments	Future	R	G2, G3	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
Limited council influence on large portion of commercial waste	52. Build relationships with the commercial sector to inform submissions, share best practice and identify opportunities to reduce waste including: - facilitating industry focus groups with waste producers (i.e. horticulture and food manufacturing, and C+D sectors); and - engaging with waste and transport sectors to understand regional issues	Planned	R	G1, G2, G3, G4	Advocate, Collaborator, Enabler, Advisor
	53. Investigate and map the material flows in the regional circular economy to identify opportunities to shift to a more circular approach	Future	R	G1, G2, G3, G4	Advocate, Service provider, Collaborator, Enabler, Advisor
	54. Explore options with commercial sector to increase storage and recovery for commercial volumes of materials and items for reuse	Future	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor
Driving local circular initiatives	55. Enable the community to undertake more circular activity through contestable funding using waste levy revenue	Current	R	G1, G2, G3	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	56. Evaluate frameworks and formal governance arrangements to enable more collaboration on waste and circular economy as a region	Future	R	G1, G2	Advocate, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	57. Develop and implement an internal circular economy policy that prioritises designing out waste, utilising recovered materials and supports the local circular economy within council operations and via procurement	Future	R	G3	Advocate, Regulator, Service provider
	58. Review framework to award waste levy contestable funds, exploring the possibilities of pooling levy funds, or providing diversified funds to enable circular activity	Future	R	G2	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	59. Support waste minimisation and circular approaches to events through bylaw requirements for event waste minimisation plans	Future	R	G2, G3	Advocate, Regulator, Collaborator, Enabler, Advisor
	60. Actively engage with local recycling markets to identify opportunities to collaborate and strengthen local recycling markets	Current	R	G1, G2, G3, G4	Advocate, Collaborator, Enabler, Advisor
	61. Provide bins and event recycling trailer for event waste to facilitate sorting of materials and normalise waste minimisation at community events	Current	R	G1, G3	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	62. Continue to provide a regional C+D waste advisor working across Ahuriri Napier and Heretaunga Hastings	Current	R	G1, G2, G3, G4	Service provider
	63. Work with local partners to facilitate education sessions for the C+D sector	Current	R	G1, G3	Advocate, Service provider,

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
					Collaborator, Enabler, Advisor
	64. Provide education sessions at Te Whare Mukupara	Current	R	G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	65. Raise awareness and increase accessibility of waste minimisation and circular activity through promotion at local expos and events, utilising a variety of communication channels	Current	R	G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	66. Attend environmental educators hui quarterly	Current	R	G1, G2	Advocate, Collaborator, Enabler, Advisor
	67. Update the A-Z waste guide regularly to provide current information on reuse, recycling and disposal options for household and commercial volumes of materials	Current	R	G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	68. Establish a regional waste education officer role to enable waste and circular economy education across both HDC and NCC	Planned	R	G2	Service provider, Collaborator, Enabler, Advisor
	69. Share circular economy case studies in the region and facilitating business to business learning, and highlighting community groups	Planned	R	G1, G3	Advocate, Service provider, Collaborator, Enabler, Advisor

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	70. Regularly meet with sector stakeholders to discuss opportunities for collaboration to support circular activity within the region e.g. Hawkes Bay Chamber of Commerce, Hawke's Bay Tourism	Planned	R	G1, G2, G3	Advocate, Collaborator, Enabler, Advisor
	71. Develop and deliver a school waste education programme	Planned	R	G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	72. Deliver behaviour change programmes using a research-based approach and quantify the impact of initiatives focusing on priority waste streams, and the co-benefits of waste programmes for climate change, public health and social impact	Future	R	G1, G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	73. Research and develop a programme to formally recognise local circular economy champions in industry and C+D sector	Future	R	G1, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	74. Evaluate and update education and engagement strategy biennially	Future	R	G1, G2, G3	Service provider
Data gaps and technology	75. Build a data warehouse for Council waste management data with a focus on automation and streamlined reporting	Current	R	G2, G4	Service provider

Focus area	Actions	Current, planned or future action	Regional (R) or district specific (NCC or HDC)	Alignment with goals	Councils intended role(s)
	76. Stay abreast (including research) of emerging opportunities and innovation for the reduction, recovery, treatment and disposal of materials in line with national policy direction and the waste hierarchy	Future	R	G2, G3	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor
	77. Use of Council websites, and social media platforms to ensure information is accessible	Currentfigure	R	G2, G3	Advocate, Service provider, Enabler, Advisor
	78. Develop joint waste branding and communications channels	Planned	R	G1, G2, G3	Advocate, Service provider, Collaborator, Enabler, Advisor
	79. Undertake a regional SWAP survey of kerbside, transfer station and landfill composition every 3 years	Current	R	G2	Service provider, Enabler
	80. Develop joint waste branding and communications channels	Planned	R	G2	Service provider, Enabler
	81. Review the effectiveness of local licensing of waste transporters and facility operators to obtain data on waste and material flows in the region (should a national approach not provide the required data quality).	Future	R	G2	Advocate, Regulator, Service provider, Collaborator, Enabler, Advisor

7.7 Evaluating the impact of priority actions

Following the prioritisation of the options, an analysis of the contribution of priority actions to the proposed targets was undertaken. A high-level analysis of waste avoided or the additional capture of materials for recovery (i.e. reducing waste to landfill), and reduction in carbon emissions, alongside associated spend is presented in this section.

Given the current challenging economic environment and the focus for the councils on maintaining core services, two scenarios have been considered:

1 Realistic

A realistic approach assumes current levels of service are maintained, with any new initiatives focused in increasing the efficiency of existing services, staged timing to delay significant investment, and utilising increasing waste disposal levy revenue. Initial actions include a focus on enabling actions, developing relationships and collaboration to identify opportunities.

2 Stretch

This approach focuses on what would be needed to achieve the Te rautaki para | Waste strategy 2030 targets, included increased resource and budget, and truncated timing for planning and implementation of actions. Alongside this, there is an assumption that there will be progress with central government actions, and commitment from local sectors through collaboration and co-investment.

7.7.1 Waste avoided and material capture

Table 7.6 presents the material capture for recycling or recovery of the tangible infrastructure options which are included in the priority options.

The greatest wins for diversion of material from landfill is to focus on organic materials (food and garden waste) and commercial waste including that of the construction sector.

Figure 7.3 and Figure 7.4 compare the expected impact of priority options with Te rautaki para | Waste strategy targets for waste generation (all waste entering the waste system) and waste disposal to landfill based on the realistic scenario. Assumptions have been made regarding the timeline of implementation of these options, taking into consideration the need to allocate sufficient budget for upgrades or new infrastructure in the next Long-Term Plan (2027), as well as time for planning and construction.

Using the realistic scenario forecast waste reduction and recovery of priority options will likely result in some progress towards the targets, however it is unlikely to achieve national targets by 2030 without greater investment. It is evident that the councils cannot achieve these targets on their own. There may be opportunities to fast-track actions, or increase the effectiveness of actions, through supporting and enabling actions, identifying partnerships and alternative investment opportunities. This is covered in section 8 alongside the councils' roles in implementing actions.

The stretch scenario includes a stronger regulatory approach (through bylaws), and increased behaviour change initiatives. This scenario does achieve the 2030 targets (Figure 7.5) but also assumes progress with the central government work programme and opportunities identified through relationships and collaboration will result in tangible waste reduction and recovery during the term of the next joint WMMP. Both these assumptions are outside the control of the councils.

Table 7.6: Summary of estimated waste recovered for priority options

Options	Realistic		Stretch	
	Waste recovered (tonnes/year)	Year	Waste recovered (tonnes/year)	Year
Behaviour change and education	5,400	2025	12,500	2025
Product stewardship schemes	1,200	2027	1,200	2026
E-waste	500	2026	500	2026
Resource recovery park	6,100	2034	6,100	2029
Transfer station upgrades	1,000	2027	2,100	2026
Expanding kerbside services	800	2025	800	2025
Resource recovery trials	3,000	2026	5,900	2025
Feasibility for organics	5,400	2027	5,400	2027
Regulatory	-		3,400	2025
TOTAL	**23,400**		**37,900**	

Note: waste avoided or captured through behaviour change and education encompasses all education related actions proposed.

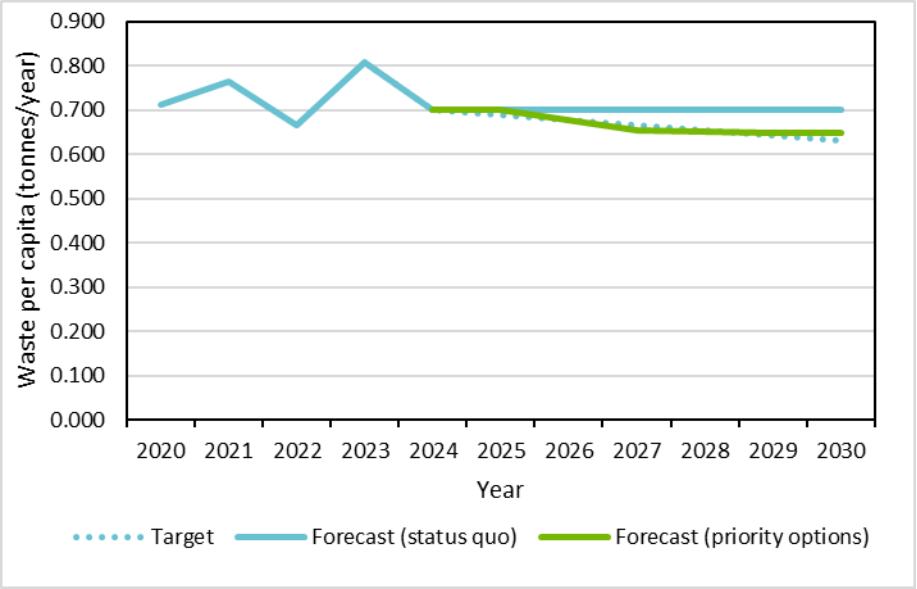

Figure 7.3: Forecast waste generation if priority options are implemented based on realistic scenario, compared to target

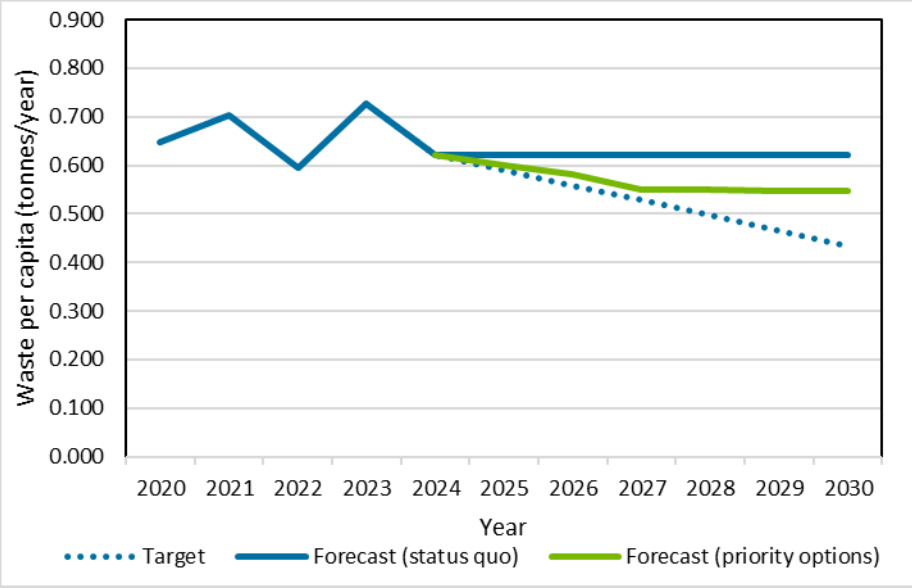

Figure 7.4: Forecast waste disposal if priority options are implemented under the realistic scenario, compared to target

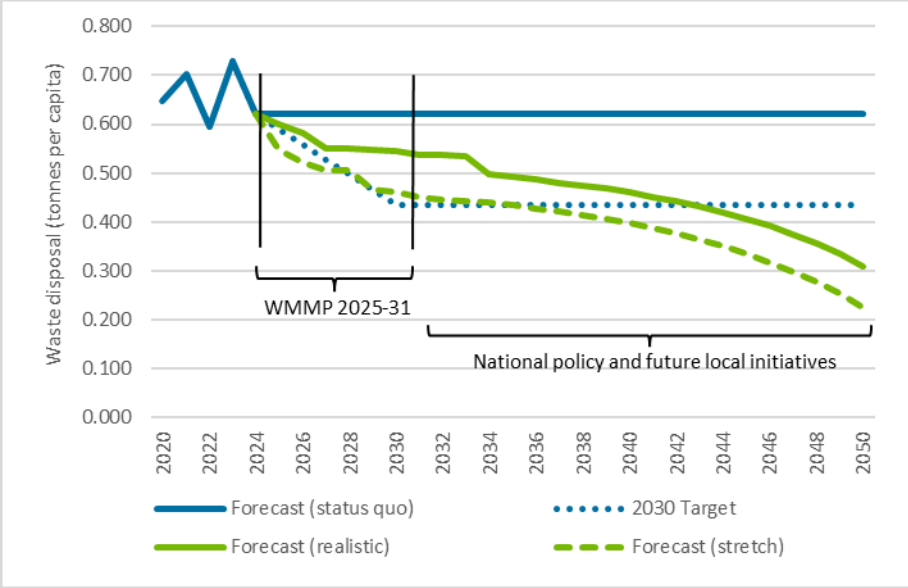

Figure 7.5: Forecast waste disposal to 2050 with priority actions and current national work programme

The Te rautaki para | Waste strategy envisions a low waste, low emissions circular economy by 2050 and provides a high-level roadmap to achieve this. Over the next 26 years or four WMMPs, a significant reduction in waste will need to be achieved. To make progress, action is needed at the national, regional and local level.

Figure 7.5 shows how this could map out based on the current national work programme alongside local actions for both realistic and stretch scenarios.

7.7.2 Emissions reduction

Figure 7.6 compares the expected impact of priority options alongside with Te rautaki para | Waste strategy targets for the reduction in biogenic emissions. The priority actions influencing progress for this target include the organics feasibility study and C+D actions. As with the waste generation and disposal targets, there is likely to be some reduction in biogenic emissions, but this is unlikely to reach the national target of 30 per cent reduction in biogenic emissions by 2030 by council action alone.

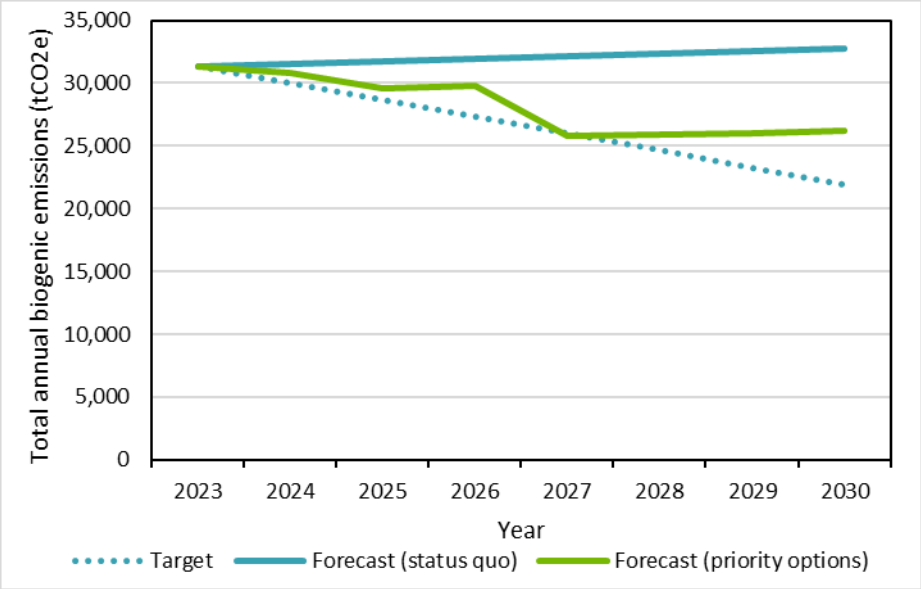

Figure 7.6: Forecast reduction in biogenic emissions if priority options are implemented under the realistic scenario, compared to target

7.7.3 Supporting initiatives

There are multiple actions that are not directly related to target waste streams or infrastructure but are critical in supporting capital and operational activities. This lack of quantifiable link makes it difficult to present the potential savings (waste reduction and emissions) of these supporting initiatives. It is more helpful to consider these options as underpinning the increased capture and reduced emissions delivered by the capital investments. The capital and operational activities will have limited impact without the supporting activities and the supporting activities will have limited impact without the infrastructure and ongoing services.

7.7.4 Funding new priority actions

Existing and planned actions are funded within the councils' current Long-Term Plans. However, the funding of any new actions will need to be confirmed once the WMMP is approved. The estimated total cost of actions (across both councils) is approximately $10m (excluding capital costs to build a Resource Recovery Park which has been assumed to be outside the current WMMP). However, the annual cost is estimated to be $2.1m (assuming land and infrastructure capital costs are amortised over 30 years). Total costs of the stretch scenario are estimated to be $36m, or $3.3m per year if capital costs are amortised. It is also assumed that there would be significant investment from non-council funding partners.

Given the current tough economic climate, any additional investment needs to provide value for money and offer tangible contributions to the vision and goals for waste management and minimisation. It may be prudent to use the next three years (within the existing LTP) to complete feasibility studies and business cases with actions requiring significant investment implemented in the later three years of the WMMP to allow appropriate funding models to be confirmed.

Key opportunities for funding (across both councils) include:

1. Increasing waste levy revenue (estimated to be an additional $700,000 per year by 2027 compared to 2023)
2. Budgeting certain projects in the next LTP (2027-2037)
3. Enabling investment ready opportunities through feasibility and business case development that will provide access to wider funding opportunities such as:

a National Waste Minimisation Fund (where an action aligns with national priorities and significant capital investment is required)

b Through collaboration or partnership within the region (e.g. mana whenua and commercial sector).

A high-level assessment of the cost of implementing the prioritised actions compared to the impact of actions on waste or emissions reduction is provided in Figure 7.7. The most cost-effective options are generally those that will result in significant waste reduction i.e. infrastructure upgrades, and organics feasibility, or those that are self-funding (product stewardship schemes).

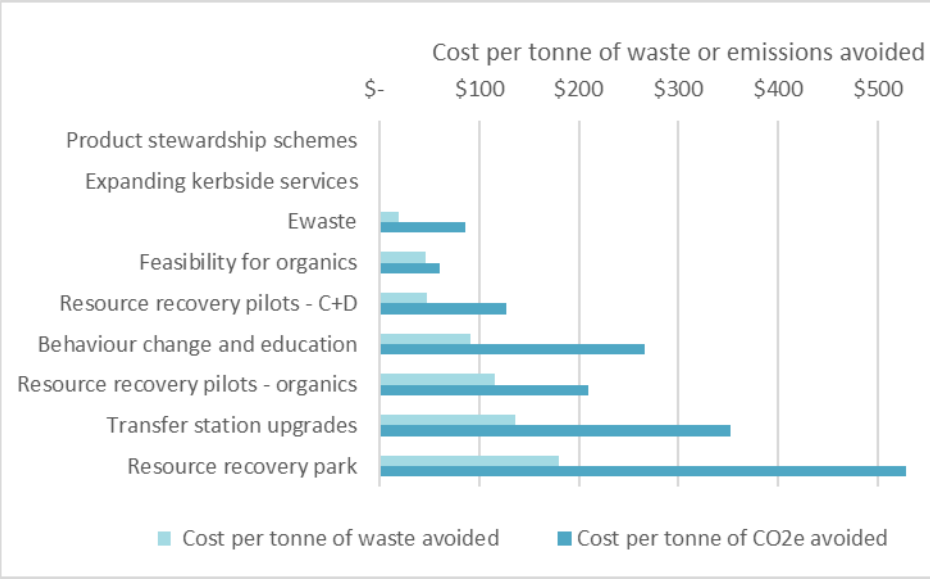

Figure 7.7: Comparison of the cost per tonne of waste or carbon emissions avoided

8 Statement of proposal

Within a waste assessment, the councils must:

- Include a statement of their proposal for meeting the forecast demands including proposals for new or replacement infrastructure.
- A statement about the extent to which the proposals will:
  - Ensure that public health is adequately protected
  - Promote effective and efficient waste management and minimisation.

Table 7.5 summarises the priority options the councils propose for meeting and managing the forecast demands on waste in the district (subject to consultation). These options have been aligned to the strategic framework including goals and objectives set out in Part 2 – Where do we want to be?

The current waste minimisation services and activities provide a good foundation and will continue to be delivered and built on to ensure:

1 The councils are set up to respond to future national policy changes
2 Improved data collection and reporting to enhance planning and transparency
3 Councils can tackle specific waste streams and improve the capture of materials
4 Support and increase the focus on circular economy activities.

8.1 Councils' intended role in meeting the forecast demand

The councils currently provide waste services in the district via contracts for kerbside collection (to those in eligible areas), transfer station and landfill disposal services supported by education and behaviour change programmes. This ensures public health is adequately protected by providing facilities for the safe recovery and disposal of waste. The councils also provide information specific to disposal options and educational resources to encourage recovery and waste minimisation.

However, councils cannot progress towards a circular economy alone. The proposed vision focuses on ensuring systems are set up to enable successful recovery of waste and change in mindset towards consumption and the generation of waste. Over the next six years, through the proposed objectives in Part 2 – Where do we want to be? councils will continue to improve the delivery of waste services and facilities including a focus on supporting and enabling the community to contribute through:

- Developing partnerships and collaboration with mana whenua, industry and community groups
- Enabling and/or supporting investment in infrastructure and services that will transition the community to a more circular economy with associated increased resource recovery
- Developing effective behaviour change and education programmes
- Continued leadership to industry, the community, and residents
- Ensuring council owned services and facilities are consistent across the councils through ongoing collaboration.

9 Medical Officer of Health statement

The Medical Officer of Health for the National Public Health Service – Hawke's Bay provided a statement regarding this waste assessment. This statement is included in A5.

Recommendations from the Medical Officer of Health have been included in waste assessment to ensure the focus on improving and protecting public health is more explicit. This has included updates to:

- The strategic framework (Objective 4) to improve and protect public health
- Additional content in section 1.5.4 to connect public health to waste minimisation and circular economy
- Including reference to public health in evaluation criteria (environmental impact and social outcomes)
- Updating behaviour change actions to include a focus on the co-benefits of waste minimisation and circular approaches for climate change, public health, society and the environment.

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Appendix A: Supporting Policies and Strategies

A1 Other supporting legislation

A1.1 Local Government Act 2002

The Local Government Act 2002 covers a wide range of local government activities, with the purpose of promoting social, economic, environmental and cultural wellbeing now and in the future. Of particular relevance to waste management and resource recovery is the requirement to develop a Long Term Plan, setting out council priorities and budgets over a 10 year timeframe. The Long Term Plans are where any rates based spending on rubbish and recycling services is actually committed.

A1.2 Hazardous Substances and New Organisms Act 1996

The Hazardous Substances and New Organisms Act 1996 governs a broad spectrum of activities related to hazardous substances with the principal aim of protecting the environment, and the health and safety of people and communities. The Act mandates the Environmental Protection Authority (EPA) to evaluate and control the introduction and management of hazardous substances and new organisms. Compliance with the HSNO Act is required for hazardous waste management processes, dictating the control measures for hazardous substance handling, storage, and disposal.

A1.3 Climate Change Response Act 2002

The Climate Change Response Act 2002was enacted to ensure New Zealand meets its international climate change commitments. Central to this is establishing a framework for New Zealand's emissions trading scheme. The Act requires careful consideration of greenhouse gas emissions and practices that support mitigation or adaptation.

A1.4 Resource Management Act 1991 (under review)

The Resource Management Act 1991 (**RMA**) provides the principal framework for managing New Zealand's resources, including land, water, air, and soil. The RMA requires the preparation of resource consent applications detailing how potential environmental effects will be managed, mitigated, or avoided.

Without specifically defining ‘waste’, the RMA addresses waste minimisation and management through controls on the environmental effects of waste minimisation and management activities and facilities through national, regional, and local policy, standards, plans and consent procedures. Under Section 31 of the RMA, local authority responsibilities include controlling the effects of land-use activities that have the potential to create adverse effects on the natural and physical resources of their district. In addition, the RMA provides for the development of National Policy Statements and for the setting of National Environmental Standards.

A1.5 Litter Act 1979 (under review)

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 responsibility for monitoring litter dumping, acting on complaints, and dealing with those responsible for litter dumping. Councils reserve the right to prosecute offenders via fines and infringement notices administered by a Council officer.

Council’s powers under the Litter Act can be used to address illegal dumping issues that may be included in the scope of a Council’s WMMP. As noted above, current waste management legislation reform is considering the Litter Act alongside the WMA.

A1.6 Health Act 1956

The Health Act 1956 places obligations on Councils (if required by the Minister of Health) to provide sanitary works for the collection and disposal of rubbish, for the purpose of public health protection (Part 2 – Powers and duties of local authorities, Section 25). The Act specifically identifies certain waste management practices as nuisances (Section 29) and offensive trades (Third Schedule). The Health Act enables Councils to raise loans for certain sanitary works and/or to receive government grants and subsidies, where available.

A2 Local strategies and plans

Table Appendix A.1 : Regional strategies and plans for Hawke's Bay

Strategy / Plan	Vision	Context	Opportunities/relevance for circular economy
Hawkes Bay Regional Council **(HBRC)** Mahere ā-Tau 2023-24 (Annual Plan)	A healthy environment and a resilient and prosperous community	A key focus of the regional council's workplan is to build back, and better. This includes the continued removal of silt resulting from Cyclone Gabriel and cleaning up woody debris.	• Building resilient waste infrastructure • Managing cyclone and flood waste • Circular economy approaches to rebuilding the region following Cyclone Gabrielle • Challenging economic environment and deliverability of work programme.
Matariki - Regional Economic Development Strategy for Hawke's Bay (On hold)	N/A	Matariki sets out the strategic direction and workplan to grow jobs across the region, increase household incomes and raise Hawke's Bay economic performance.	• Enabling regional spatial planning • Improve infrastructure to provide better logistics across the region • Utilise progressive Procurement regionally to achieve social and economic outcomes.
Hastings & Napier Future Development Strategy **(FDS)** (Under development)	TBC	The FDS will provide an overview of the issues for future development (2023-2053), and the strategic options available for addressing them.	• Supports reductions in greenhouse gas emissions • Climate change/natural hazards such as Cyclone Gabrielle.
Hawke's Bay Community Carbon Footprint 2021/2022	N/A	Hawkes Bay Regional Council has commissioned the development of community-scale greenhouse gas (GHG) footprints for the Hawke's Bay for the 2018/19, 2019/20, and 2020/21 financial years. These will inform progress made towards the region's goal to be carbon neutral by 2050.	• Reducing emissions through reduction in waste generated and landfilled • Landfill gas capture and energy generation • Prioritising diversion of organic and C+D waste streams.
Hawke's Bay Regional Recovery Plan	N/A	Led by the Hawke's Bay Regional Recovery Agency **(RRA)** and approved by the Matariki Governance Group **(MGG)** this plan sets out projects, programmes and initiatives that are proposed to advance recovery for 14 priority actions.	• Prioritise environmental restoration actions. • Utilise a progressive procurement approach • Supporting Māori initiatives and partners to deliver recovery solutions 'by Māori for Māori'

Strategy / Plan	Vision	Context	Opportunities/relevance for circular economy
Kotahi Plan	N/A	Formulated by HBRC in collaboration with tangata whenua and local communities, the Kotahi Plan aims to unify the current Regional Policy Statement, Resource Management Plan, and Coastal Environment Plan. The plan will provide a sustainable blueprint for managing various environmental aspects in Hawkes Bay, from the mountains to the sea.	While the Kotahi Plan is in development, the following opportunities have been identified: • Strengthen commitment to managing the effects of climate change, by reducing emissions and adaptation • To engage with the regional community about the risks ahead from natural hazards, how they are to be managed, to identify and agree what risks are tolerable or intolerable to communities now and in the future.

Table Appendix A.2 : District Specific Strategies and Plans - Heretaunga Hastings

Strategy / Plan	Vision	Context	Opportunities/relevance for circular economy
Long Term Plan (**LTP**) 2024 - 2034	Heretaunga whenua koukura, Heretaunga hapori ora - Fertile land, prosperous people.	Council's LTP establishes the strategic framework that will guide the activities of Council until 2034. Key issues are Cyclone recovery, climate change and growth, and financial challenges. Relevant strategy priority areas: • The economic powerhouse • Getting around • Rural living • Our natural treasures	• Ōmarunui Landfill development (condensed work programme due to Cyclone Gabrielle waste affecting capacity) • Blackbridge historic landfill and neighbouring stopbank improvements • Feasibility of potential kerbside food scraps collection • Innovation in the primary sector • Utilising freight hubs for efficient waste recovery • Circular economy action to support food production, wasting less and living sustainably.
Eco District Strategy 2021	The Hastings district has a sustainable future through encouraging enhancements to its natural and built environment.	This document provides an overview of Council's strategic work that contributes to environmental sustainability. Priority areas: • A better climate and carbon future • The natural environment is enhanced and protected • Clean and green council services	• Circular economy actions contribute to priority areas: – Reduced emissions from waste disposal and avoiding waste generation – Local organic waste processing into compost to contribute to regeneration of environment • Actions for clean green services specifically link to WMMP, plus wider sustainability (of which waste is a part), including use of technology in delivery of waste services.
District Development Strategy 2021	We enjoy and treasure our great quality of life. It's a great balance that gives us some of the bigger city experience without the hassle and cost.	The District Development Strategy underpins Council's 2021 LTP and provides the framework for Council to achieve community outcome 3. Safe and inclusive place, and 4. Vibrant place to live, play and visit.	• Innovation and new practises need to be encouraged to move towards a low carbon and low waste economy • Using recycled materials in road construction

Table Appendix A.3 : District Specific Strategies and Plans - Napier

Strategy / Plan	Vision	Context	Opportunities/relevance for Circular Economy
Long Term Plan (**LTP**) 2024-2027 (including Infrastructure Strategy and Financial Strategy)	Ko rua tē pāia ko Te Whanga. Enabling places and spaces where everybody wants to be.	Council's LTP establishes the strategic framework that will guide the activities of Council until 2027. Strategic priorities are: • Financially sustainable Council • A great visitor destination • Spaces and places for all • A resilient city • Nurturing authentic relationships	• Affordability, cyclone recovery and improved resilience • Maintain investment and development of Ōmarunui Landfill (jointly with HDC) • Advances in green technology to assist with diverting solid waste from landfill Potentially partner with suitable organisations when it appears cost effective to process solid waste in a more sustainable manner.
City Vision	Small City. BIG ideas.	Sets the strategic framework for the city to guide Napier to an integrated and exciting future. Relevant principle – ecological excellence.	• Promote sustainable thinking in building design, waste management, three waters management, and active urban form • Supporting waste reduction in tourism and events.

A3 Evaluation criteria

Evaluation criteria	Comment / explanation	Weighting
Diversion from landfill	Options that increase diversion of materials into reuse and recovery and a reduction in disposal to all landfill classes. Allows for alternative / lower value options where there is no alternative	15%
Embeds or promotes circular activity	Options that waste less (reduce waste generation) in the first place, higher priority for options at top of waste hierarchy and circular activity that acknowledges waste as a resource (avoid, reduce, reuse, recycle)	20%
Environmental impact and regeneration	Options that protect the environment from harm and support regeneration. High value is placed on: - options that improve the environment, reduce emissions (including organic derived material) and appropriately manage hazardous materials - options that consider a holistic approach, work with te taiao, and are guided by mana whenua	15%
Mana whenua partnership	Options that strengthen partnership with mana whenua and enhance participation in direction setting and decision making are prioritised	15%
Local recovery solutions and markets	Assessment of viable/resilient markets for end product; prioritises local (regional), national markets over solutions that have overseas markets	5%
Resilience / Adaptability	Assessment of resilience to changes in climate and associated impacts including consideration of transport links and accessibility to wider circular / recovery networks; Options that enable future proofing for national legislative changes	5%
Cost and affordability	Options where the whole of life costs show long term affordability and value for money will be prioritised	5%
Innovation, science and technology	High value is placed on: - options that are based on future ready innovation or technology, as opposed to more legacy approaches. - options that incorporate behavioural psychology, evidence or exploration based approaches	10%
Social outcomes, partnership and collaboration	Options that also support health equity, local employment, community wealth building (i.e. wellbeing alliance, focus on localising and associated benefits) and upskilling. Options that enable others (outside of Council) to take take action with circular activity, or to collaborate to achieve better outcomes.	10%

A4 Possibilities evaluation

Possibilities	Diversion from landfill	Embeds or promotes circular activity	Environmental impact and regeneration	Mana whenua partnership	Local recovery solutions and markets	Resilience / Adaptability	Cost and affordability	Innovation, science and technology	Social outcomes, partnership and collaboration	Weighted score
Evaluate frameworks and formal governance arrangements to enable more collaboration on waste and circular economy as a region	Low	High	Medium	High	High	High	High	High	High	2.55
Complete a feasibility study to determine best option for diverting organic waste	High	High	High	High	Medium	High	Medium	High	High	2.9
Evaluate alternative models to finance, govern and deliver infrastructure	Medium	Medium	Medium	High	Medium	High	High	Medium	High	2.35
DELETE Evaluate demand and budget required for a commercial hazmobile collection	Medium	Low	High	Low	High	Medium	Medium	Medium	Medium	1.85
Support trials for C+D recovery e.g. solutions for timber, plasterboard & concrete, on demand collections, providing containers for recycling on building sites	High	Medium	Medium	Low	High	High	High	High	High	2.35
Support trials for organic material recovery e.g. community composting network, localised anaerobic digestion	High	Medium	High	Low	High	High	High	High	High	2.5
Review internal council process and methods to enable efficient and timely submissions on central government policy	Medium	Medium	Medium	Medium	Low	Medium	High	High	High	2.2
Investigate status of regional and national waste infrastructure activity including landfill closures and capacity, bans on materials, gate rates to assess risks or opportunities for Ōmarunui Landfill	Low	Low	High	Medium	High	High	High	Medium	Low	1.85
Build on organisational capability to enhance our relationship with mana whenua partners, utilising mātanga mukupara to engage with mana whenua, hapū and marae	Low	Medium	Medium	High	Low	High	Medium	High	High	2.2
Include an evaluation of climate change impacts in all feasibility and design work for waste infrastructure	Medium	High	High	Low	Medium	High	Medium	High	Medium	2.35
Promote and partner with technology providers reducing organic waste at source (e.g. Foodprint, depackaging solutions) or for data gathering	High	High	Medium	Low	High	High	Medium	High	High	2.5
Promote and partner with technology providers that facilitate sharing, reuse and recycling for C&D, or for data gathering	High	High	Medium	Low	High	High	Medium	High	High	2.5
Publicise diverse funding sources including funding focused on innovation, waste reduction, and environmental and social outcomes	Medium	Medium	Medium	Medium	High	High	High	Medium	Medium	2.15
Review kerbside services based on demand, accessibility and equity for households outside the existing collection area, multi-unit dwellings and new developments.	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Low	1.9

Possibilities	Diversion from landfill	Embeds or promotes circular activity	Environmental impact and regeneration	Mana whenua partnership	Local recovery solutions and markets	Resilience / Adaptability	Cost and affordability	Innovation, science and technology	Social outcomes, partnership and collaboration	Weighted score
Give effect to the role of mana whenua in decision making processes as Te Tiriti partners and establish opportunities for collaboration	Low	Medium	Medium	High	Low	High	High	High	High	2.25
Use technology to engage households in collecting and accessing data related to kerbside collections, litter and resource recovery	Low	Medium	Medium	Low	Low	High	High	High	Medium	1.85
Set emissions targets and reporting requirements for all Council contractors as part of the procurement / contract management process	Low	Medium	High	Low	Medium	High	High	High	Medium	2.05
Develop an internal circular economy policy that prioritises designing out waste, utilising recovered materials and supports the local circular economy via their procurement	High	High	High	Low	Medium	High	Medium	Medium	High	2.5
Deliver behaviour change programmes using a research-based approach and quantify the impact of initiatives focusing on priority waste streams	Medium	High	Medium	Medium	Medium	High	Medium	High	Medium	2.35
Review the effectiveness of local licensing of waste transporters and facility operators to obtain data on waste and material flows in the region (should a national approach not provide the required data quality)	High	Medium	Medium	Low	Medium	Medium	Medium	Medium	Medium	2
Undertake a review of transfer station facilities in Napier city	Medium	Medium	Medium	Low	High	High	Medium	Medium	Medium	1.95
Introduce organics services in line with proposed national standards	Medium	Medium	Medium	Low	Medium	Medium	Medium	High	Medium	1.95
Support waste minimisation and circular approaches to events through bylaw requirements for event waste minimisation plans	Medium	High	Medium	Low	Medium	Medium	Medium	Medium	Low	1.95
Resource a regional officer role specific to waste data and technology	Medium	Medium	Low	Low	Medium	Medium	High	High	Low	1.75
Review framework to award waste levy contestable funds, exploring the possibilities of pooling levy funds, or providing diversified funds to enable circular activity	Low	High	High	Medium	High	Medium	High	Medium	High	2.4
Evaluate and update education and engagement strategy biennually	Medium	Medium	Medium	Medium	Medium	High	Medium	High	Medium	2.15
Support / expand existing organic processing by collaborating with the commercial sector	High	High	High	Medium	Low	High	High	Medium	High	2.65
Implement Circular Economy principles in Council operations e.g. deconstruction of Council assets	High	High	High	Low	High	High	Medium	High	Medium	2.55
Consider bylaw controls that will support the reduction or recovery of key waste streams (e.g. organics, C&D)	High	High	High	Low	Low	Medium	Medium	Medium	Medium	2.3

Possibilities	Diversion from landfill	Embeds or promotes circular activity	Environmental impact and regeneration	Mana whenua partnership	Local recovery solutions and markets	Resilience / Adaptability	Cost and affordability	Innovation, science and technology	Social outcomes, partnership and collaboration	Weighted score
Upgrade existing transfer stations (Henderson Road and Redclyffe) to focus on increased reuse, repair and recovery opportunities including for commercial waste streams	High	High	Medium	Low	High	Medium	Medium	Medium	High	2.35
Engage with commercial sector to better understand class 2-5 landfill activity and data and encourage diversion away from all landfill facilities (1-5)	Medium	Medium	Medium	Low	Medium	Medium	Medium	Medium	Medium	1.85
Leverage the waste levy expansion by submitting applications to the WMF, targeting priority waste streams, or resource recovery network infrastructure	High	Medium	High	Medium	High	High	High	High	High	2.65
Research and develop a programme to formally recognise local circular economy champions in industry	Medium	High	High	Low	High	High	Medium	Medium	Medium	2.3
Work with waste operators and transport companies to divert organic materials from landfill	Medium	Medium	High	Low	High	Medium	High	Low	Medium	2
Research and develop a programme to formally recognise local circular economy champions in the C+D sector	Medium	High	High	Low	High	High	Medium	Medium	Medium	2.3
Investigate and (if feasible) develop a Regional Recovery Park to provide a circular acitivty destination that caters for city, commercial and district/rural communities.	High	High	High	Medium	High	High	Medium	High	High	2.8
Review pricing at landfill and transfer stations to incentivise and generate more opportunities to divert commercial waste into reuse, recycling and recovery.	High	High	Medium	Low	Medium	High	High	Medium	Medium	2.3
Collaborate with wider Hawkes Bay stakeholder group to implement recommendations from the Waste and Resource Recovery Infrastructure Roadmap	High	High	Medium	Medium	High	High	Medium	High	High	2.65
Investigate contaminated soil material flows and identify opportunities to reuse soil beneficially	Medium	Medium	High	Low	High	Medium	Medium	High	Medium	2.15
Undertake a scoping study including community engagement for additional rural recycling stations including Bayview	Medium	Medium	Medium	Low	Low	Medium	Medium	Low	Medium	1.7
Investigate and map the material flows in the regional circular economy to identify opportunities to shift to a more circular approach	Medium	High	High	High	High	High	High	High	High	2.85
Collaborate with other organisations to maximise education and behaviour change opportunities	Medium	High	Medium	High	Low	High	High	Medium	High	2.5
Support businesses with initiatives that minimise waste as well as reduce emissions.	Medium	Medium	High	Low	High	High	High	High	High	2.35
Respond to future Building Act changes in relation to the requirement for waste minimisation plans as part of building consents	Medium	Medium	Medium	Low	Medium	High	Medium	Low	Medium	1.8

Possibilities	Diversion from landfill	Embeds or promotes circular activity	Environmental impact and regeneration	Mana whenua partnership	Local recovery solutions and markets	Resilience / Adaptability	Cost and affordability	Innovation, science and technology	Social outcomes, partnership and collaboration	Weighted score
Explore options with commercial sector to increase storage and recovery for commercial volumes of materials and items for reuse	High	Medium	Medium	Low	High	Medium	Medium	Low	Medium	1.95
Support the development of waste plans for marae and Māori organisations	Medium	Medium	High	High	Low	Medium	Medium	Low	High	2.25
Support mana whenua to establish circular economy initiatives	Medium	Medium	High	High	High	High	Medium	High	High	2.6
Stay abreast (including research) of emerging opportunities and innovation for the reduction, recovery, treatment and disposal of materials in line with national policy direction and the waste hierarchy.	Medium	Low	Medium	Medium	Medium	High	Medium	High	Low	1.85

A5 Medical Officer of Health Statement

20 September 2024

Health New Zealand
Te Whatu Ora

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Hastings District Council
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Hastings 4122

Stefni Wilson
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Dear Angela and Stefni

MEDICAL OFFICER OF HEALTH STATEMENT OF SUPPORT FOR JOINT WASTE ASSESSMENT

Thank you for providing a copy of the *Joint Waste Assessment Hastings and Napier 2024* in accordance with your obligations under the Waste Minimisation Act 2008 to consult with the Medical Officer of Health.

Health New Zealand | Te Whatu Ora National Public Health Service (Health NZ) has statutory obligations under the Pae Ora (Healthy Futures) Act 2022 and the Health Act 1956 to improve, promote and protect the health of people and communities. Of particular focus for Health NZ is embedding Te Tiriti o Waitangi as its foundation toward improving health outcomes for Māori.

Waste management and human health impacts

Robust waste minimisation and management processes are foundational to protecting human health. Ensuring a focus on human health impacts within both the waste assessment and the subsequent Joint Councils Waste Management and Minimisation Plan (WMMP) is critical and can be done by ensuring a focus on:

- Equitable access to strategies that promote waste minimisation practices and effective waste management.
- Reducing community exposure to dust, noise and odours which may arise from waste management facilities.
- Throughout the waste management process minimising and managing potential pests such as flies, rats and mosquitoes. These can cause nuisance and spread diseases such as rodent-driven leptospirosis.[1]

[1] Boey K, Shiokawa K, Rajeev S. Leptospira infection in rats: A literature review of global prevalence and distribution. PLoS neglected tropical diseases. 2019 Aug 9;13(8):e0007499.

- Minimising the use of hazardous substances and ensuring that waste which is directly hazardous to human health can be disposed of in accordance with best practice.
- Reducing greenhouse gas emissions, which has co-benefits for health by reducing the negative health impacts of climate change.[2]

General feedback on the Joint Waste Assessment Hastings and Napier 2024

As Medical Officer of Health, I support the approach that has been taken in the development of this assessment, and in particular want to acknowledge the willingness to include a Health NZ representative through its development stages.

I also support and commend:

- The recognition of the importance of partnership with mana whenua and the need to embrace indigenous knowledge and solutions in how we interact with and protect Te Taiao. This is especially important given the pervasive health inequities experienced by Māori and the interconnected nature between the health of Te Taiao and human health.[3]
- The need to focus on transitioning to a circular economy model of waste minimisation and management. This is consistent with international health-centred frameworks such as the United Nations Sustainable Development Goals (SDG) which include a call for sustainable consumption and production patterns (SDG 12), and a focus on reducing mortality from environmental pollution (SDG 3.9).[4]
- The emphasis on the need to reduce greenhouse gas emissions which will have health co-benefits by contributing to reduced climate change impacts.
- The community pre-engagement which has shown a clear community mandate for a focus on waste minimisation, a circular waste economy and recycling.
- The ongoing prioritisation of activities which centre on community engagement, education and capacity building, including targeted behaviour change programmes hosted at Te Whare Mukupara.
- The overall strategic framework outlined in the assessment which will form the foundations for the joint Hastings and Napier WMMP.

Recommendations

Within the assessment and subsequent WMMP:

- Consider strengthening the direct focus on improving and protecting public health, including an explicit focus on considering health equity. For example, a health focus could easily be incorporated into the overall strategic vision (p. 82) as well as the evaluation criteria used for prioritisation of activities (p. 124).

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[2] New Zealand College of Public Health Medicine. Climate Change and Health in New Zealand: Climate Change Policy Statement. Wellington; 2018.
[3] Health New Zealand. Health Status Report. Wellington: 2024. Accessible at: TeWhatuOra.govt.nz
[4] United Nations. Sustainable development goals. Accessible at: THE 17 GOALS | Sustainable Development (un.org)

- Implementation of the waste hierarchy framework (Figure 1.3, p. 4) includes actions to "reduce, rethink, and redesign" waste out of the system. Priority should be placed on products which create waste that is directly hazardous to human health or that creates environmental pollution which indirectly impacts on human health.
- Ensure actions centred around educational activities maximise public health benefit by working alongside other public education and capacity building programmes – for example, there are synergies with educational opportunities to support whānau and communities to make healthy and sustainable food choices.

Health NZ looks forward to the journey towards strengthened waste minimisation and management within our communities, and the positive outcomes we can all create together.

Thank you again for the opportunity to comment.

Yours sincerely,

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