Nelson Tasman Waste Assessment 2024

Rethink Waste Whakaarohia

Nelson City Council Te Kaunihera o Whakatū

tasman district council Te Kaunihera o te tai o Aorere

EXECUTIVE SUMMARY

INTRODUCTION

In 2019, Nelson City Council and Tasman District Council adopted the Nelson Tasman Waste Management and Minimisation Plan (the 2019 Waste Plan). The Waste Minimisation Act 2008 (section 51) requires local authorities to prepare a 'waste assessment', to inform a six-yearly review of a district's Waste Management and Minimisation Plan. The purpose of this Waste Assessment is to provide an overview of the region's existing waste and resource recovery systems, and to assess future demands for waste minimisation and management activities. It also reports on how the Councils are performing against the 2019 Waste Plan and proposes options to address the future demands identified.

This waste assessment provides the necessary information to inform a review of the 2019 Waste Plan. It incorporates input from various teams across both Councils, including Climate Change, Strategy, Planning, Infrastructure, Solid Waste Operations, as well as the Nelson Tasman Regional Landfill Business Unit, and as a statutory requirement of the Waste Minimisation Act 2008, input also from the region's Medical Officer of Health.

REVIEW OF THE 2019 WASTE PLAN

The review of the region's 2019 Waste Plan is scheduled to take place in 2024 and 2025 and will be overseen by a Working Party comprised of three elected members from each Council and up to three Iwi representatives. The Working Party has the power to recommend to the Councils but not decide. Elected members have been appointed, and the process for securing Iwi representation is underway.

The intention is to provide an updated draft Waste Plan for approval by both Councils by the end of 2024, then to go out for public consultation in early 2025. A finalised Waste Plan for the region is scheduled to be adopted by the Councils by August 2025.

PROGRESS AGAINST THE 2019 WASTE PLAN

The 2019 Waste Plan includes a target of 10% reduction of waste disposed to landfill per capita by 2030. Based on disposal tonnages at the region's operating landfill in York Valley, the Councils are on track to achieve this regional target (Figure i). Over the last five years, the amount of municipal waste disposed to landfill per person from the Nelson-Tasman region has reduced from 604 kg/year in 2018/2019 to 525 kg/year in 2023/24.

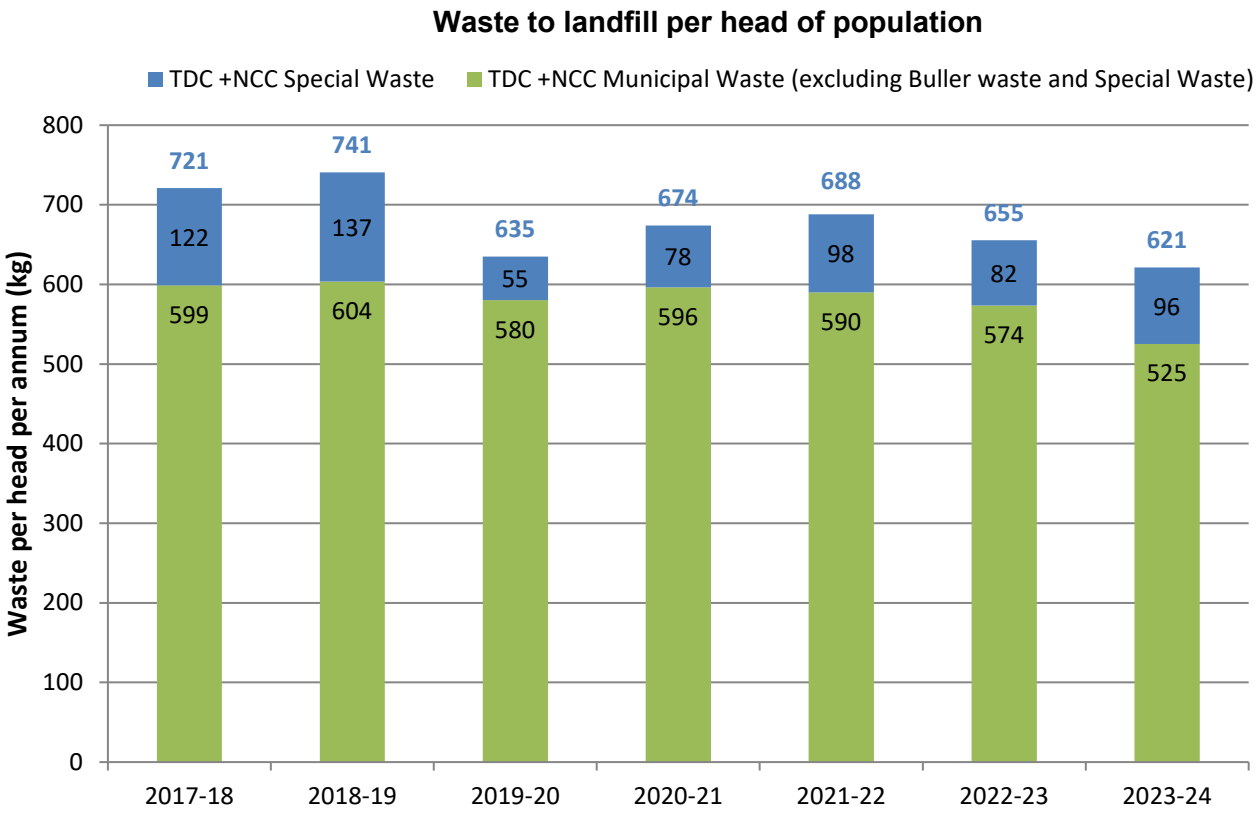

Figure i: Waste disposed to landfill in Nelson-Tasman 2017-2024, tonnes.

The 2019 Waste Plan sets out 55 actions which the Councils have been progressing since 2019, despite significant challenges, such as:

- the impacts of the Covid-19 pandemic and staff resourcing.
- changes and a lack of certainty around commodity markets for recycling.
- a lack of consistent data to monitor progress; and
- signaled changes to waste legislation which have yet to be confirmed.

Regardless of these challenges, the Councils have introduced and supported a range of services and infrastructure, which when combined, increase waste diversion opportunities and improve waste management practices across the region. For example:

- Embedded the Rethink Waste Whakaarohia programme to promote and facilitate a range of local waste minimisation initiatives (e.g. Second-hand Sundays, Don't Bin Batteries, Love Food Hate Waste, Enviroschools).
- As well as establishing a waste minimisation engagement programme with the construction and demolition sector, secured a central government grant to establish a diversion facility at the Richmond Resource Recovery Centre and at the Nelson Waste Recovery Centre (in partnership with Nelson Environment Centre) to trial the recovery of construction and demolition materials.
- Significantly reduced emissions from the region's landfills, through the work of the Nelson Tasman Regional Landfill Business Unit.

- Commissioned research into food waste collection options and completed a household food scraps collection trial in Nelson, as well as securing government funding for a business case for organic kerbside collections, to inform any future decisions.
- Continued to provide grants and subsidies for community waste minimisation initiatives (e.g. electronic waste recovery, Repair Cafes, home-composting, Zero Waste events, and implementing programmes such as FoodPrint and Recycle a Device).
- Upgraded council-owned resource recovery facilities to introduce weight-based charging and improve safety measures.
- Installed solar-powered compactor rubbish bins in Nelson City and Tasman District; and
- Continued advocacy, by both Councils, to central government on waste policy and proposed legislation changes.

In 2020, both Councils also made changes to kerbside recycling collections for households to streamline recovery of materials. This involved limiting the types of plastic containers accepted in kerbside bins to only those labelled #1, #2 and #5. New regulations were subsequently developed by the government for the whole country which standardise the types of materials collected in councils' kerbside collections. When these new regulations came into force on 1 February 2024, the Nelson-Tasman region was well placed to meet the new standards.

OVERVIEW OF NELSON-TASMAN WASTE AND RESOURCE RECOVERY SYSTEMS

Figure ii shows how the region's waste and resource recovery systems manage materials generated from various activities. The region's resource recovery and waste management systems rely not only on services and infrastructure provided by the two Councils, but also on critical contributions from commercial operators and non-profit organisations. The diverse network of services and facilities enables households and businesses to divert significant amounts of material from landfills through resource recovery activities, as well as ensuring the safe management of residual waste.

Although the Councils have access to reasonable data on the types and quantities of materials handled at council-owned facilities or waste that gets disposed at the region's main landfill, there remains limited data to help build a comprehensive picture of how all types of materials flow through the region's overall resource recovery and waste management system.

Over the last five years, the total quantity of waste disposed to the region's municipal landfill has fluctuated between approximately 70,000 to 80,000 tonnes per year (which includes around 3,000 tonnes per year of waste transported from the Buller District). Similar quantities of other soils and inert materials are estimated to go to other less controlled disposal locations in the region each year. Across Nelson-Tasman, it is also estimated that tens of thousands of tonnes of various materials get recovered for beneficial composting or recycling, and a large, but unknown, quantity of discarded products and materials are shared, reused, or repaired to circulate within the community and local economy each year. Based on the downwards trend shown in Figure i, waste disposal quantities per person in Nelson Tasman are not expected to increase significantly, however there are many factors that influence waste quantities and future demands.

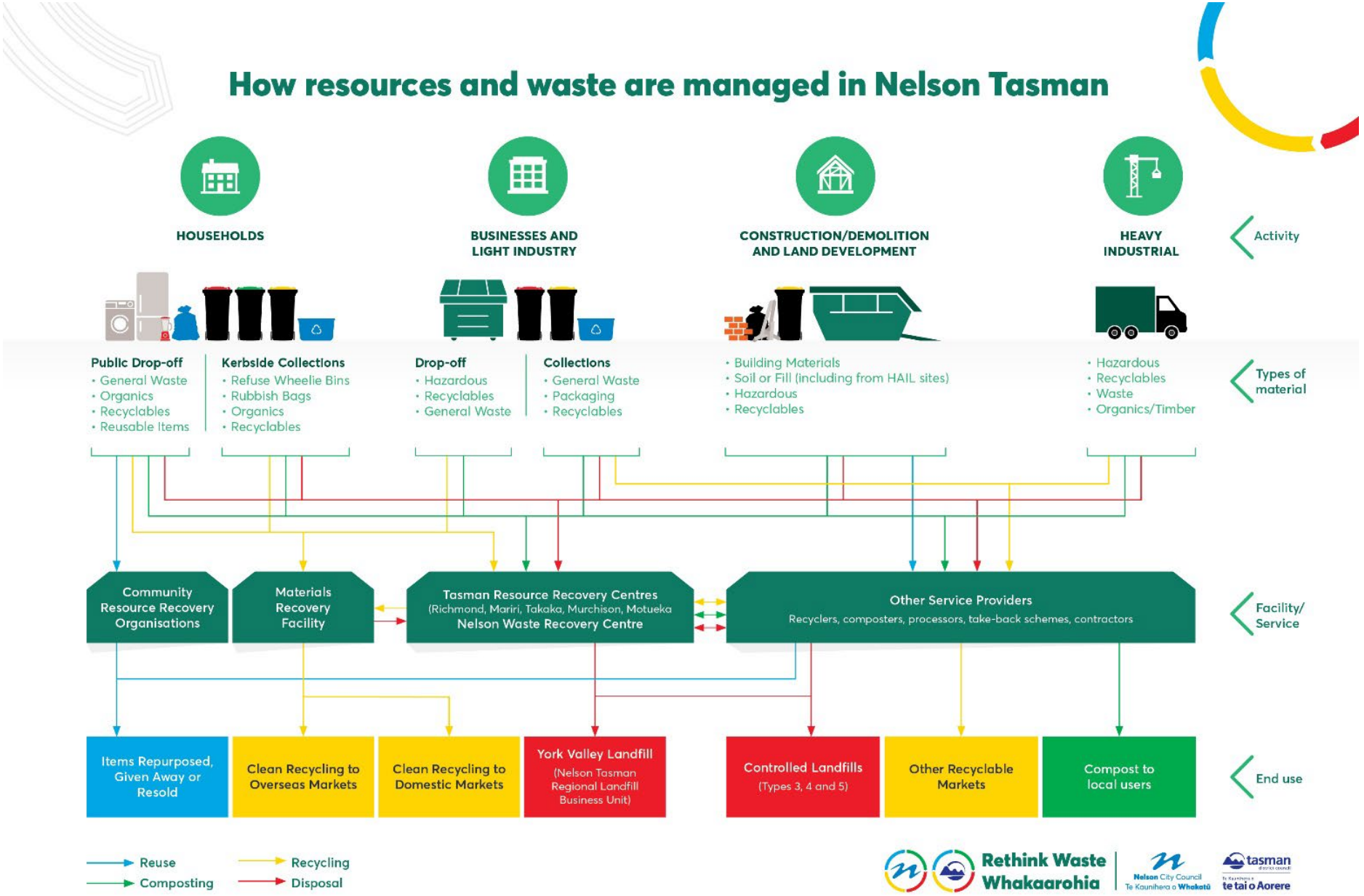

Figure ii: Overview of Nelson Tasman waste and resource recovery systems

In March 2023, the previous government published Te Rautaki Para - New Zealand Waste Strategy (NZWS 2023). The policy sets out a long-term vision for a “low waste, low emission society built on a circular economy” and signals a range of government actions such as standardising kerbside recycling services, reforming key waste legislation (Waste Minimisation Act 2008 and the Litter Act 1979) and developing central government Action and Investment Plans to support delivery. The NZWS also refers to actions and goals set in New Zealand’s first Emissions Reduction Plan. Most recently, in May 2024, the government amended the Waste Minimisation Act 2008, to widen the scope of activities that revenue from the government’s Waste Disposal Levy can be used for.

While the principles of the circular economy (Figure iii) and the waste hierarchy (Figure iv) are central to the NZWS and other existing government policy, there remains uncertainty when legislative reforms will occur and whether the NZWS will be implemented.

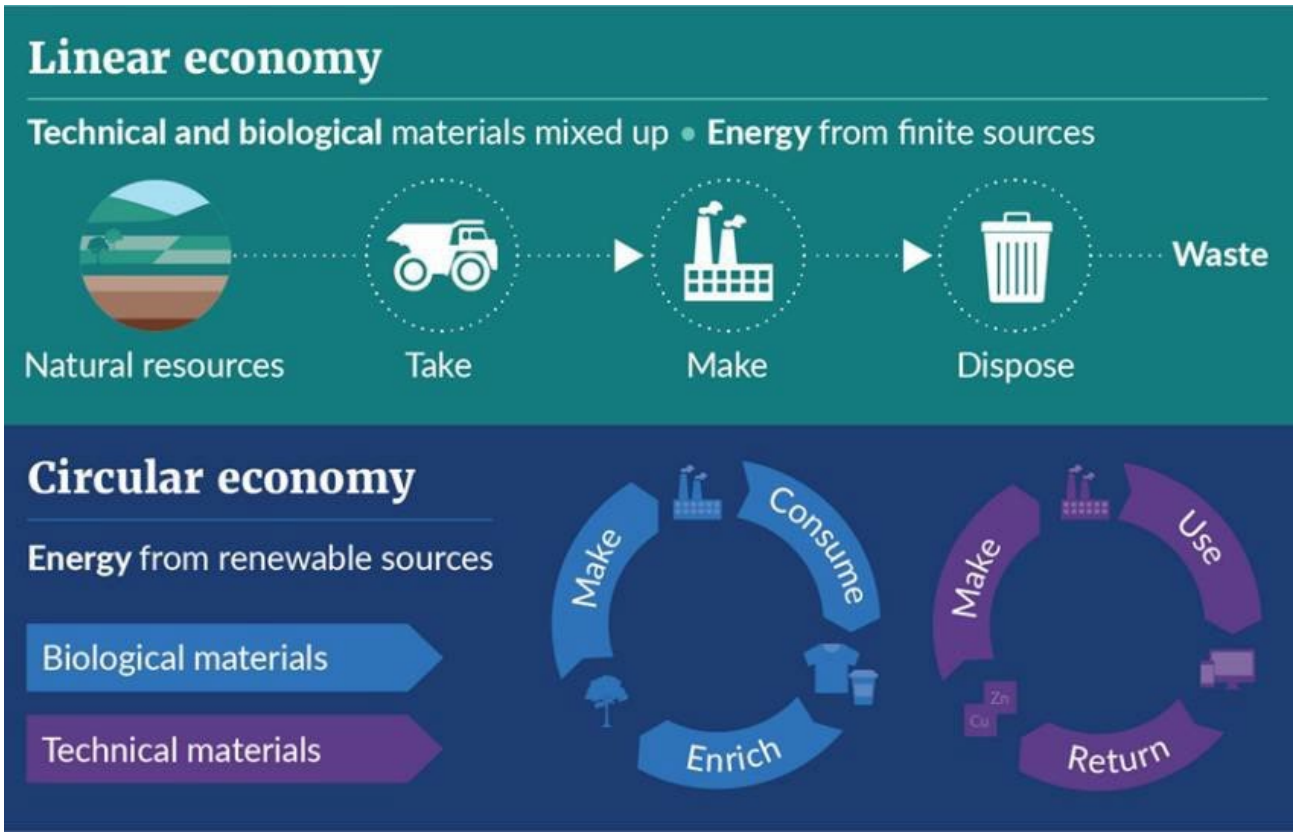

Figure iii: Circular Economy diagram from the NZ Waste Strategy 2023

The provision of waste minimisation and management activities in the region helps support community outcomes as described in Councils’ long-term plans, as well as align with national and international waste and climate change policy commitments.

Iwi aspirations and priorities relating to waste issues are expressed in some of Te Tauihu iwi management plans and reflect broader and interconnected social, cultural, and economic desired outcomes. Similarly, the interconnections between reducing waste and responding to the impacts of climate change to improve the overall wellbeing of Te Tauihu is recognised in the region’s 2022 Intergenerational Strategy, convened by Wakatū Incorporated.

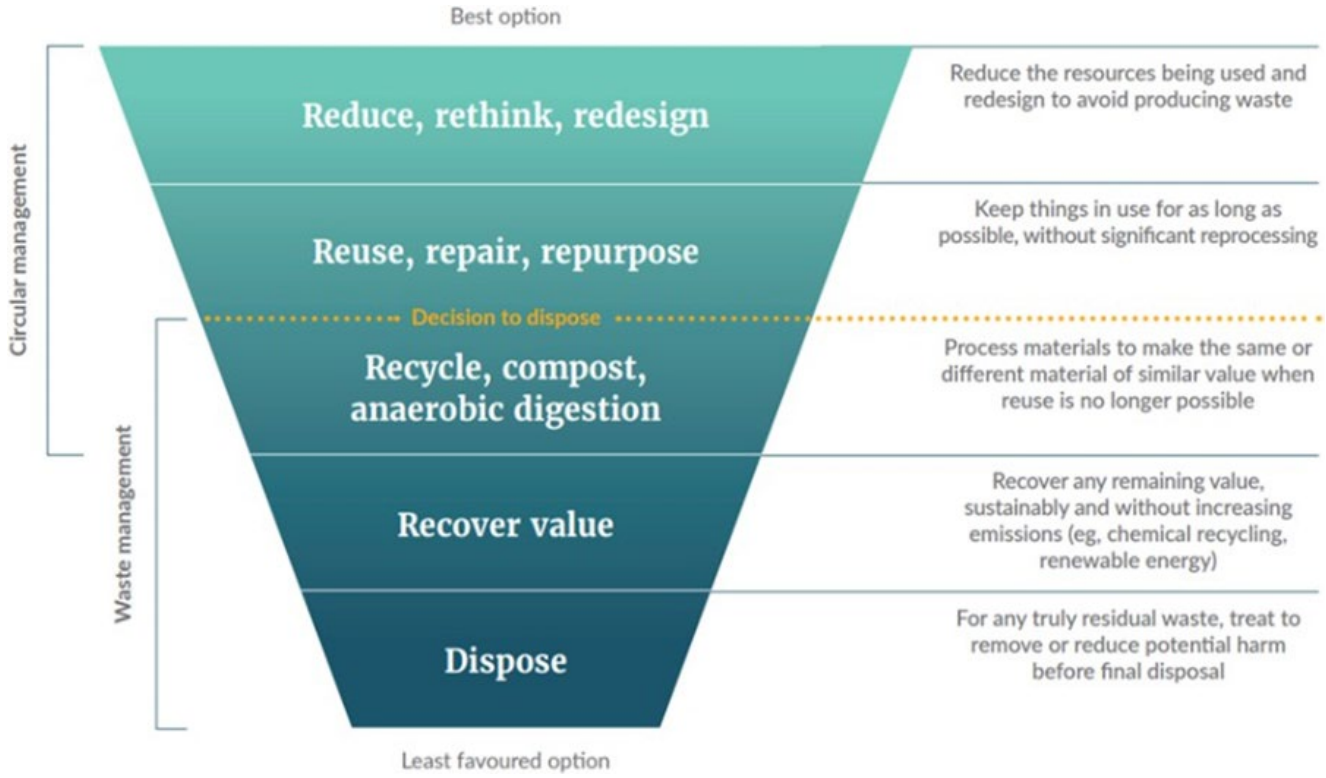

Figure iv: Waste Hierarchy diagram from the NZ Waste Strategy 2023

There is a direct connection between waste produced and climate change. Greenhouse gas emissions are generated when goods and materials are produced and consumed, in addition to when materials are disposed of. While landfills are the primary source of greenhouse gas emissions for the waste sector (due to the release of methane when organic waste decomposes in the landfill environment), other broader interconnected environmental issues relate to waste generation and disposal, such as loss of biodiversity, depletion of finite resources, and pollution of soil and water. Opportunities exist in the region to respond to these issues by increasing the region's capacity to divert waste from landfill to recover valuable resources and reduce harm from wastes; as well as developing ways to reduce in the amount of waste generated in the first place.

If further methods can be developed to design-out waste in the first place, and divert and develop more value from discarded materials, results from recent audits of waste loads disposed at York Valley landfill show that up to half of the waste has potential to avoid landfill. The types of materials that have potential to be recovered for reuse, recycling, or reprocessing, includes large amounts of construction and demolition ('C&D') materials, soils, food scraps and garden wastes, as well as paper and cardboard, glass and plastics packaging.

As most of these materials generate greenhouse gases when disposed to landfill, the landfill's gas capture system is designed and has been improved in recent years to capture a significant proportion of these gases to mitigate their environmental impact. Waste minimisation activities provided by the Councils and others in the region also provide opportunities to not only reduce greenhouse gas emissions generated within landfills, but to also influence ways to account for embodied carbon in goods and products and to reduce resource consumption to address society's 'take, make, waste' culture.

FUTURE DEMAND AND POTENTIAL GAPS: ISSUES AND OPPORTUNITIES

This waste assessment assesses future demand for regional waste minimisation and management services, activities and infrastructure, based on a range of influencing factors, such as population changes, local priorities and broader policy frameworks, economic activity, consumer attitudes, and impacts from climate change and natural hazards. The following is a summary of the key issues and opportunities identified:

- ***Price of disposal***

  The price of disposal to landfill or other disposal facilities can significantly affect waste flows in this region. The price of landfill disposal is controlled through the Nelson Tasman Regional Landfill Business Unit. It is set by operational and capital costs to run the landfill, and incorporates costs for the national Waste Disposal Levy, Emissions Trading Scheme, and a Local Disposal Levy. Pricing is set by the Business Unit and passed to the two Councils for review through the annual review of the landfill business plan. A projected increase in landfill disposal cost is likely to increase diversion from landfill but needs to be balanced against affordability and unintended effects (such as illegal dumping or inappropriate disposal to cleanfill).

- ***Uncertainty in national policy direction***

  Government legislation and regulations and the work programme of the Ministry for the Environment all have a significant impact on how waste management services get planned and delivered. The previous government introduced a new policy approach, proposing legislative reform and regulations, as well as potential requirements for local authorities to meet waste diversion performance goals. Other proposals included in the NZWS 2023, such as national licensing for waste operators, 'duty-of-care' requirements for businesses, as well as the implementation of industry-led product stewardship schemes currently being co-designed (including a deferred container return scheme for beverage containers) will all require government legislative change or new regulations.

- ***Strengthening the partnership between councils and Te Tauihu iwi***

  There remains the opportunity to strengthen Iwi - Council partnerships to better reflect Iwi aspirations relating to waste management and minimisation. This includes Iwi representation and participation in the review of the 2019 Waste Plan, as well as building ongoing understandings of roles, priorities and interests of Iwi / Māori relating to waste minimisation and management activities. This will help enable the delivery of actions that are culturally responsive and can improve outcomes for all.

- ***Reducing greenhouse gas emissions and responding to climate change***

  The Councils and others have increasing requirements and responsibilities to recognise the direct connection between waste generation and climate change. This includes mitigation (reduce emissions) and adaptation (ensure infrastructure resilience) measures that respond to the impacts of climate change, through the delivery of waste minimisation and waste management activities.

- ***Reducing waste generation – moving to a circular economy***

  Significant opportunities exist to avoid waste being generated in the first place by moving activities up the waste hierarchy (reduce, reuse, repair) and by building a circular economy to decouple waste generation from economic activity. This can involve focusing on specific locally significant waste streams to reduce waste at source (such as within key sectors like construction), or targeting wastes identified by the government as 'priority products.

Commercial business and not-for-profit organisations have a significant part to play in this shift, and the Councils can improve collaborative efforts across sectors.

- ***Improving diversion of waste from landfill***

  Alongside building a circular economy, there are opportunities to increase the recovery of waste materials through optimising recycling services and developing resource recovery infrastructure and services that divert wastes from landfill for beneficial use and to create local opportunities. Materials with high diversion potential, based on quantities, include organics (such as food scraps, garden wastes, cardboard/paper) and construction and demolition ('C&D' materials) including soil and rubble.

  The removal and subsequent disposal of large quantities of soils due to land development is an emerging issue both regionally and nationally. Key considerations include developing and implementing methods that prevent valuable soils from becoming waste by utilising these materials on-site, while also managing risks associated with legacy soil contamination. Without these methods, the limited range of 'cleanfill' disposal options in the region is leading to increased demand to dispose of these soils at Class 1 landfills (York Valley and Eves Valley), or risks associated with contaminated soils getting disposed in less controlled sites.

  Increasing recovery rates for recyclable materials are dependent on a range of factors, including fluctuating commodity pricing, investment in infrastructure capacity, and end-market demands. A further key factor is the design of waste services and their effectiveness in encouraging source separation of recyclable materials. In Nelson Tasman, commercial waste operators are the primary providers of waste collection services for both businesses and households, and these can often lack incentives to separate recyclables, leading to high landfill disposal rates. The Councils should strengthen collaboration with the waste and resource recovery sector to develop win-win solutions that encourages source separation of recyclable/reusable materials.

- ***Developing collaborative relationships and partnerships***

  Strengthening relationships with central government and other local authorities, Iwi partners, and the wider community (including industry sectors, households, schools etc.) is critical to develop the necessary opportunities to improve waste minimisation and waste management outcomes. Building relationships across the Council and with a range of community partners and key sectors helps with planning, designing, and delivering behaviour change programmes, and new services or facilities. For example, in recent years Council waste staff have been working with members from the local construction sector to focus on methods to recover building materials from sites and at councils' resource recovery facilities. Strategic investment (using waste levy funding) in building knowledge and data systems, coupled with adequate staff resourcing, can support effective engagement with various sectors across the community to foster stronger working relationships.

- ***Managing disaster waste***

  Recent extreme weather events in the region and across the country have highlighted disaster-related waste as a significant concern that necessitates increased preparation and planning work. It is important to complete this work ahead of time to meet the need. In May 2024, the government broadened the scope for what Waste Disposal Levy revenue can be spent on by central government, including managing emergency waste, repair/replacement of waste infrastructure damaged by natural disasters, as well as addressing legacy issues relating to closed landfills and contaminated land.

- ***Accessing data and reporting***

  Accessing good data helps the Councils plan and enable effective waste management and minimisation activities and to engage across the community. Significant waste-related data gaps remain, including types and quantities of materials managed by privately-operated, commercial or industrial activities; waste-related carbon-emissions within the region; and further data to understand peoples' attitudes and behaviours relating to waste. Regulations have recently been introduced by the government to require operators of waste and resource recovery facilities to capture and report information on the types and quantities of wastes received, including at Class 3, 4 and 5 facilities (often referred to as 'cleanfills'). Such requirements and further measurement tools are essential to highlight significant and/or emerging issues, such as: how surplus soils are managed in the region; fire risks relating to e-waste/discarded batteries; emissions from landfill; or the effectiveness of behaviour change programmes.

- ***Protecting public health and safety***

  The provision of waste collection and management services is an essential sanitary service to ensure public health is protected. Services and council-owned facilities need to be safe, accessible and equitable with careful consideration given to public health and safety issues, in particular relating to sanitary, medical and other hazardous wastes.

- ***Protecting the natural environment***

  There is an ongoing need to ensure that waste facilities and services are managed to protect the natural environment and future generations. The provision of waste management facilities helps to address illegal dumping and littering behaviours, and improve how key materials such as contaminated soil, hazardous materials, wastes from rural properties, and disaster wastes are managed.

PROPOSED FUTURE PLANNING FRAMEWORK

The 2019 Waste Plan has the following vision statement "*The communities of the Nelson-Tasman Region work together to reduce waste'.* It is based on three key goals, nine objectives, seven guiding principles, and sets out 55 actions relating to 20 policies. It has numerous indicators and targets, many of which are difficult to measure and report on due to limited data. Based on findings from the waste assessment, the Plan is no longer well aligned with central government waste and climate change policy and does not adequately reflect the Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement between the Councils and Te Tauihu iwi, or Iwi aspirations and priorities. Wider community attitudes, priorities and behaviours relating to waste minimisation have also shifted since the last waste assessment was completed in 2017. In early 2024, both Councils agreed the 2019 Waste Plan should be reviewed and replaced.

Revising the 2019 Waste Plan offers an opportunity to reassess Council-led actions that can drive community-wide engagement and initiatives. These actions should align with a regional strategic direction that balances local aspirations and national legislative requirements. Figure v presents a proposed framework for the new Waste Management and Minimisation Plan, based on guidance from the Ministry for the Environment and outcomes from this waste assessment.

Figure v: Proposed future planning framework

This proposed framework has an overarching vision statement that sets the strategic direction, and from which key goals and objectives stem. An Action Plan is informed by these goals and objectives, with specific, measurable targets guiding the Action Plan's implementation as well as monitoring progress. The guiding principles underpin the Plan and provide important considerations for Councils' ongoing decision-making.

PROPOSED OPTIONS

Table i presents a set of options that are proposed for the Councils to address the key challenges and opportunities identified by the waste assessment. The proposed options are listed in a ranked order, based on outcomes from an evaluation by Council officers which used four main criteria:

- Environment
- Social
- Economic Benefits
- Management of economic risk

When assessing these options, it was noted that all have potential relevance to local interests and cultural responsibilities of Te Tauihu iwi.

It is proposed that a new Joint Waste Plan for the Councils be developed based on the options presented in (Table i). Alongside developing a renewed strategic direction and regional action plan to promote effective and efficient waste management and minimisation in our region and ensure that public health and the environment is adequately protected.

The new Joint Waste Plan will be given effect to through activities and budgets included in each council's respective Activity Management and Long Term Plan. The delivery of any new services or facilities will be based on each district's priorities and may vary for each council.

Table i: Summary of proposed options

Option	Description
1	***Focus on the top of the waste hierarchy: reduce, rethink, redesign.*** Examples to investigate and/or implement could include: • Expanding the Rethink Waste Whakaarohia programme of tools, education and resources to support community (including business)-led waste avoidance and reduction • Funding or other support for community-led resource recovery hubs or recovery programmes • Investigating and supporting reuse systems where appropriate • Advocating to central government for the development of a circular economy strategy and legislation, including right to repair and implementing product stewardship schemes • Supporting Council activities to walk the talk • Regional and national advocacy with waste and resource recovery sector
2	***Reduce soil and other inert materials to landfill*** Examples to investigate and/or implement could include: • Changing planning rules and/or introducing other measures to support reducing the quantity of soil, rubble and other inert material to Class 1 landfills (including those containing naturally elevated heavy metals or those with low contaminant levels), and enabling alternative approaches for managing contaminated soils • Investigate need for additional facilities • Advocate for national consistency between natural resource planning legislation and Waste Minimisation Act 2008
3	***Respond to disaster preparedness and climate change adaptation and resilience*** Examples to investigate and/or implement could include: • Collaboration with other Councils, government, Iwi partners, Civil Defence Emergency Management, insurers and other interested parties to develop a disaster waste plan • Modelling types and quantity of disaster waste in different scenarios • Assessing effective methods for safe storing and handling of contaminated material, including effective management of wastes that contribute to emissions e.g. refrigerants and organic wastes • Assessing capacity of infrastructure and services to respond to different scenarios • Identifying community resilience needs in waste management area • Incorporating cultural and social considerations
4	***Divert organic waste (food and garden) from landfill*** Examples to investigate and/or implement could include: • Continuing to enable diversion options for garden waste across the region • Investigate sources of commercial and industrial food waste, identify sustainable solutions and implement if appropriate • Kerbside collection service for food scraps (and garden wastes, if appropriate) • Where commercial options are not available, support if appropriate the development of local organic processing plant/s • Reviewing frequency of rubbish collection alongside possible food waste collection

Option	Description
5	***Increase diversion of recoverable materials*** Examples to investigate and/or implement could include: • Extending the current Materials Recovery Facility (MRF) capacity • Increasing diversion capacity of Council sites or other facilities as appropriate • Extending residential recycling collection service to more properties • Supporting improved recovery of commercial recycling, including equitable access for waste service providers to MRF • Opportunities to divert recoverable materials, including C&D waste • Work with community to facilitate growth of local end markets • Funding or other support for community-led resource recovery hubs or recovery programmes
6	***Improve management of hazardous waste*** Examples to investigate and/or implement could include: • Providing appropriate services for hazardous waste at Council facilities • Promoting existing product stewardship schemes which target hazardous wastes • Advocating for a coordinated national hazardous waste management framework for transport, treatment and disposal
7	***Enhance Council collaboration to deliver outcomes of Waste Plan*** Examples to investigate and/or implement could include: • Shared waste services where appropriate • Data collection and performance reporting • Collaborating with the Nelson Tasman Regional Landfill Business Unit to support waste diversion and effective waste management • Bylaws and/or licensing to achieve the objectives of the Waste Plan, where this is not covered by national legislation • Developing better systems to access information about privately managed waste disposal sites and other waste disposal sites (including farm dumps) and monitoring capacity and risks associated with these sites. • Advocacy to central government and other organisations as appropriate to achieve the outcomes of the Waste Plan
8	***Optimise kerbside collection services*** Examples to investigate and/or implement could include: • Continuing to provide kerbside recycling collection service for households, public place recycling where appropriate, and public drop-offs at Councils' resource recovery facilities • Implementing measures to reduce contamination in recycling collections • Investigating the delivery model and reporting requirements for refuse collection services and develop/implement, if appropriate • A waste bylaw and licensing or alternative incentive to encourage waste reduction in domestic waste collections • Advocating to central government for product stewardship for 'priority products', packaging and the container return scheme

CONTENTS

NELSON TASMAN JOINT WASTE ASSESSMENT

1. INTRODUCTION

This Joint Waste Assessment has been prepared for Nelson City Council and Tasman District Council (the Councils) in accordance with the requirements of the Waste Minimisation Act 2008 (WMA). This document provides background information and data to inform the review of the Councils' existing 2019 Joint Waste Management and Minimisation Plan (2019 Waste Plan). A decision on whether to amend or revoke and replace the 2019 Waste Plan is required within six years of the previous review. In this case, the decision is due by July 2025.

1.1. Purpose of the Waste Assessment

The purpose of the waste assessment is to support the review of Council's 2019 Waste Plan by providing information on waste minimisation and management activities in the region, assessing future demands, and proposing options to meet these demands. The waste assessment provides information on the following key aspects:

- Existing waste services and facilities provided in Nelson and Tasman.
- National policy and local planning contexts.
- Review of performance against the 2019 Waste Plan.
- An assessment of future demand for waste services.
- A statement and assessment of options to address waste-related challenges and to meet future demand.
- Each Council's role in implementing the options to meet future demand.
- The extent to which the proposals will protect public health and promote effective and efficient waste management and minimisation.

To meet statutory requirements, this assessment has been reviewed by the Nelson Medical Officer of Health, with the outcome of the review and comments received in Appendix B.

1.2. Collaboration between the Councils

This waste assessment has been prepared in recognition of the interconnected nature of the activities that result in waste generation across the Nelson-Tasman Region, as well as the Councils' various shared services and infrastructure which support waste management and minimisation activities. The Councils also share a range of activities with territorial authorities on the West Coast and with Marlborough District Council[1]. It is recognised that collaboration is necessary to integrate and align efforts wherever possible.

1.3. Scope of this Assessment

This waste assessment discusses waste services and facilities that are directly managed by the Councils, as well as those within the private sector. Information and data on waste flows and resource recovery activities are obtained from the Councils' staff, as well as external sources, to

[1] Marlborough District Council adopted its latest Waste Management and Minimisation Plan in 2021.

create an overall understanding of wastes that get disposed to landfill and discarded materials that get recovered for other uses across the Nelson Tasman Region.

For the purposes of this waste assessment , ‘waste’ does not include those liquid and gaseous wastes that get directly emitted to air, land or water (e.g. wastewater), as these are managed through the Resource Management Act 1991 and get addressed by other council strategies and plans. However, this waste assessment does include in its scope wastes that may be in liquid or gaseous forms which get handled, treated and/or disposed of within the waste management systems the operate across the Region (e.g. waste engine oil, paints, or refrigerant gases).

1.4. Te Tiriti commitment and Iwi-Council Partnership Agreement

The relationship between tangata whenua and the Councils is guided by upholding the evolving principles and practices of Te Tiriti o Waitangi. In preparing this waste assessment and in the process to review the 2019 Waste Plan, the Councils are committed to working closely with Iwi of Te Tauihu (top of the South Island) as the Crown’s treaty partners.

Since 2005, Nelson City Council has held a Memorandum of Understanding with Iwi across Te Tauihu. In 2021, Tasman District Council adopted a "Statement of Fostering Māori Participation in Council Decision-Making through Ngā Iwi / Council partnership". Building from these, in December 2023, a Partnership Agreement - Kia Kotahi Te Tauihu, Together Te Tauihu – was signed by the two Councils, Marlborough District Council and the eight Iwi of Te Tauihu in recognition of the unique and important roles that local government and Iwi both play in the cultural, social, environmental, and economic wellbeing of the region.

The Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement has the following vision/wawata hei tirohanga: “*We are the people of Te Tauihu. Together, we care for the health and wellbeing of our people and our places. We will leave our taonga in a better state than when it was placed in our care, for our children and the generations to come. Tūpuna Pono – Being Good Ancestors*”. The Agreement has seven principles on which the partnership is based, alongside practices and protocols to guide actions and behaviours.

The Agreement represents an opportunity for Iwi and Council partners to work collaboratively on matters of mutual interest in a way that addresses some of the broader strategic regional challenges, including how waste is managed and minimised across Te Tauihu.

1.5. Connection between waste and climate change

The Councils have committed to reducing climate change impacts, in recognition of the roles local authorities have to support reducing greenhouse gas emissions, as well as regional adaptation.

Reflecting local initiatives and government policy, this waste assessment addresses the connection between waste and climate change. This relates to both greenhouse gas emissions generated throughout the value chain of a product or material through society’s linear, ‘take, make, waste’ consumption patterns, as well as greenhouse gas emissions associated with waste management and disposal practices (i.e. biogenic methane generated when various ‘organic wastes’ - such as paper, cardboard, timber, food scraps, garden wastes - are disposed to landfills).

There is also the need to strengthen the resilience of the Region’s waste infrastructure and services to adapt to the impacts of climate change, including managing wastes generated from extreme weather events. By addressing the connections between waste and climate change, there are opportunities to shift towards more circular, resilient and regenerative systems.

1.6. General data limitations, completeness, and assumptions

This document was prepared between 2022 and 2024 using information gathered from a variety of sources. While every effort has been made to achieve a reasonable degree of accuracy in this waste assessment , information and quantitative data on waste quantities and regional systems are not always readily accessible. Reasons can include commercial sensitivities about quantities, composition, or sources of wastes, but can also relate to a general lack of data capture systems and reporting requirements. Limiting factors in preparing the waste assessment have been noted where appropriate.

When having regard to s51(3) of the WMA, the information contained in this waste assessment is considered by the Councils to be appropriate, when considering:

- the significance of the information,
- the costs of, and difficulty in, obtaining the information; and
- the extent of the Councils' resources.

2. OVERVIEW OF THE NELSON TASMAN REGION

This section presents a brief overview of Nelson-Tasman's geography, people, and economy to provide general context for how wastes are generated and managed within the Region.

2.1. Location and geography

The Nelson-Tasman Region (Figure 1) covers a large area of approximately 10,288 km^2 in the upper South Island of Aotearoa New Zealand with a total estimated resident population of 115,000 in 2023[2].

The Region is a desirable place to live, play, work and explore. The landscape is diverse, from natural alpine terrains to river valleys and plains, and stretching out to the coastal environs.

The area covered by Nelson City is 422 km^2 which is predominantly urban and significantly smaller than the Tasman District, which comprises a mix of urban and rural land uses across 9,615 km^2.

[2] Source: ecoprofile.infometrics.co.nz/nelson-tasman/Population/Growth

Figure 1: Nelson-Tasman Region illustrating the large geographical area and main centres[3]

The Nelson-Tasman Region is subject to a range of natural hazards, including coastal erosion, seawater inundation, river flooding, wildfire, liquefaction, fault rupture and slope instability. A number of these natural hazards are heightened by the effects of climate change. The hazards are present across large parts of the existing urban areas as well as rural areas.

These natural hazards can impact the Region's access and connections with neighbouring regions and are important considerations with the ongoing need to develop resilient waste infrastructure and services in the Region. They are also factors that influence forecasting the types of wastes potentially generated during natural disasters.

2.2. Population and demographics

The Region's history, people, and economy all influence the types and quantities of wastes that get generated here, alongside the waste services and infrastructure that exist within the region.

The estimated population of the Nelson-Tasman Region is forecast to increase from 115,000[4] in 2023 to 127,300 by 2033. The population is ageing, with more than 20 per cent aged over 65. One in five people in the Region are internationally born and there are 48 different cultures living in its environs.

[3] Source: MBIE Regional workforce plan 2022
[4] Tasman District Council and Nelson City Council Population Projections 2018 – 2058 Results – DOT consulting (revised June 2024)

A significant number of domestic and international visitors come to stay in the Region[5], especially during summer holiday period. This can also place pressure on waste services and facilities.

2.3. Iwi of Te Tauihu

There are nine Iwi trusts that represent tangata whenua in the Nelson-Tasman Region. The four waka these Iwi affiliate to are shown in Figure 2

Figure 2: Iwi trusts representing tangata whenua of the Nelson-Tasman Region

The eight Iwi of Te Tauihu are:

- Ngāti Koata
- Ngāti Toa Rangatira
- Ngāti Rārua
- Te Ātiawa
- Ngāti Tama ki Te Waipounamu
- Ngāti Kuia
- Ngāti Apa ki te Rā Tō
- Rangitāne o Wairau

Noting also the Murchison area, within the Tasman District, lies in the north-western side of the takiwā of Te Rūnanga o Ngāti Waewae a hapū of Ngāi Tahu.

Three marae are located within the rohe of Nelson and Tasman: Te Āwhina near Motueka; Onetahua at Pōhara; and Whakatū marae in Nelson.

Te Tauihu's eight Iwi have net assets of over $1 billion and have a demonstrated track record of collaboration, exemplified by the creation of the Te Kotahi o Te Tauihu Charitable Trust[6]. There are

[5] Quarterly Economic Monitor | Nelson-Tasman | guest nights (infometrics.co.nz)
[6] Te Kotahi o Te Tauihu Charitable Trust (kotahitehoe.org.nz)

at least 780 Māori-owned businesses and a further 297 self-employed Māori across the Te Tauihu region (including Marlborough).

2.4 Economy

The Region's economy relies on three main sectors - horticulture (including apples, pears, kiwifruit, grapes and hops), fishing/aquaculture, and forestry. Nelson's port is the largest deep-sea fishing port in Australasia and 70% of the country's aquaculture is based in Te Tauihu. The forestry sector produces approximately 10% of New Zealand's sustainable roundwood forest supply and the region has the highest number of scientists per capita than other NZ cities[7].

Investment of local capital and collaboration between Te Tauihu iwi / Māori enhances the region's economic, cultural, and environmental wellbeing[8]. The Nelson Regional Development Agency[9] identifies the following five key sectors as having high, regional competitive advantages:

- **Blue economy** - the region's largest export earner with more than 2,700 jobs in fishing, aquaculture and processing. The sector includes boat building, scientific research, blue technology, and specialisation in high value add products (e.g. nutraceutical).
- **Horticulture, Food & Beverage** – the region has favourable growing conditions with the sector providing almost 4,000 jobs in 2022 (more per capita than any other region). There is a growing cluster of businesses and organisations exploring the production of high-value food and beverage products.
- **Forestry & Wood Product Manufacturing** - this sector accounts for almost 1,800 jobs in the Nelson-Tasman Region and has the country's highest concentration of specialist wood processing (e.g. laminated and structural wood products, and glues).
- **Science, Technology and Intellectual Capital** - high percentage of self-employed people in professional services and significant contributor to economic growth in 2021-2022.
  Visitor Economy – the sector is building the Region's 'green credentials' through initiatives such as the Marahau Pledge[10] and the Destination Management Plan[11].

Over the past decade, key sectors contributing the most economic growth (GDP) in the Region have been the 'Construction' sector and 'Professional, Scientific and Technical Services', followed by 'Retail Trade' and 'Manufacturing'[12], with this growth leveraged off the Region's three main sectors listed above. The tourism and hospitality sectors are also key to the region's economy and supports high employment across the Region[13]. Recovery from the economic and social impacts of the Covid-19 global pandemic and August 2022 flood events is ongoing, but the region's strong local economy has fared comparatively well.

[7] Regeneration+Plan+Final+Digital+-+Sept+2022.pdf (squarespace.com)
[8] Ngā rāngai me ngā rōpū tōmua ā-iwi kua tohua i ngā maheretanga ki tua – Flagged sectors and demographic groups for our next plans | Ministry of Business, Innovation & Employment (mbie.govt.nz)
[9] Economic insights & reports (nelsontasman.nz)
[10] MĀRAHAU PLEDGE (marahaupledge.nz)
[11] nelsontasman.nz/assets/PDFs/Nelson-Tasman-Destination-Management-Plan-2021-2026-Compressed.pdf
[12] ecoprofile.infometrics.co.nz/Nelson-Tasman/Gdp
[13] Ngā rāngai mātāmua hou | New priority sectors | Ministry of Business, Innovation & Employment (mbie.govt.nz)

3. LEGISLATIVE AND STRATEGIC CONTEXT

This section summarises the Government and Councils' legislative and strategic planning frameworks, which together have a significant influence on waste activities in the Nelson-Tasman Region. A summary of relevant international commitments is also provided in Appendix C.

3.1. Te Rautaki Para - New Zealand Waste Strategy 2023

The Government's key policy document on waste minimisation and management is Te Rautaki Para - New Zealand Waste Strategy (NZWS). The NZWS was published in March 2023 and updated the Government's previous waste strategy which was released in 2010. Te Rautaki Para - NZWS sets out guiding principles, goals, and targets to support the country moving towards the following stated vision:

"By 2050, Aotearoa New Zealand is a low-emissions, low-waste society built upon a circular economy.
We cherish our inseparable connection with the natural environment and look after the planet's finite resources with care and responsibility".

The NZWS sets out nine guiding principles and three national targets to be achieved by 2030:

- **Waste generation:**
  Reduce the amount of material entering the waste management system, by 10 per cent per person.
- **Waste disposal:**
  Reduce the amount of material that needs final disposal, by 30 per cent per person.
- **Waste emissions:**
  Reduce the biogenic methane emissions from waste, by at least 30 per cent.

The NZWS has the following eight goals:

1. **Systems:** The Strategic planning, regulatory, investment and engagement systems are in place and operating to drive and support change.
2. **Infrastructure:** We have a comprehensive national network of facilities supporting the collection and circular management of products and materials.
3. **Responsibility and accountability:** We all take responsibility for how we produce, manage and dispose of things, and are accountable for our actions and their consequences.
4. **Using less:** We use fewer products and materials, and using them for longer, by making them more durable, and repairing, reusing, sharing and repurposing them.
5. **Resource recovery systems:** Resource recovery systems are operating effectively for core materials and across all regions.
6. **Recovering value:** We look for ways to recover any remaining value from residual waste, sustainably and without increasing emissions, before final disposal.

7. **Emissions:** Emissions from waste are reducing in line with our domestic and international commitments.

8. **Contaminated land:** Contaminated land is sustainably managed and remediated, to reduce waste and emissions and enhance the environment.

3.1.1. Circular economy and waste hierarchy

Two key features of the NZWS, as reflected in the vision, is the move towards a *circular economy*, and the principles set out by the 'waste hierarchy' (Figures 3 and 4). Governments around the world are recognising the principles of a circular economy to tackle significant problems like climate change, biodiversity loss, waste, and pollution and is reflected in other government policy[14]. It requires a whole-of-economy shift away from a linear economy that 'takes-makes-wastes' to one that values and retains resources in more circular ways and designs-out waste in the first place.

For a circular economy to succeed in reducing waste, better services and systems are required that enable waste avoidance methods (including reuse, repair), as well as improve recycling. This can also mean transitioning from ownership of products to accessing products through services and other means (e.g. car share schemes, leasing of expensive products, etc).

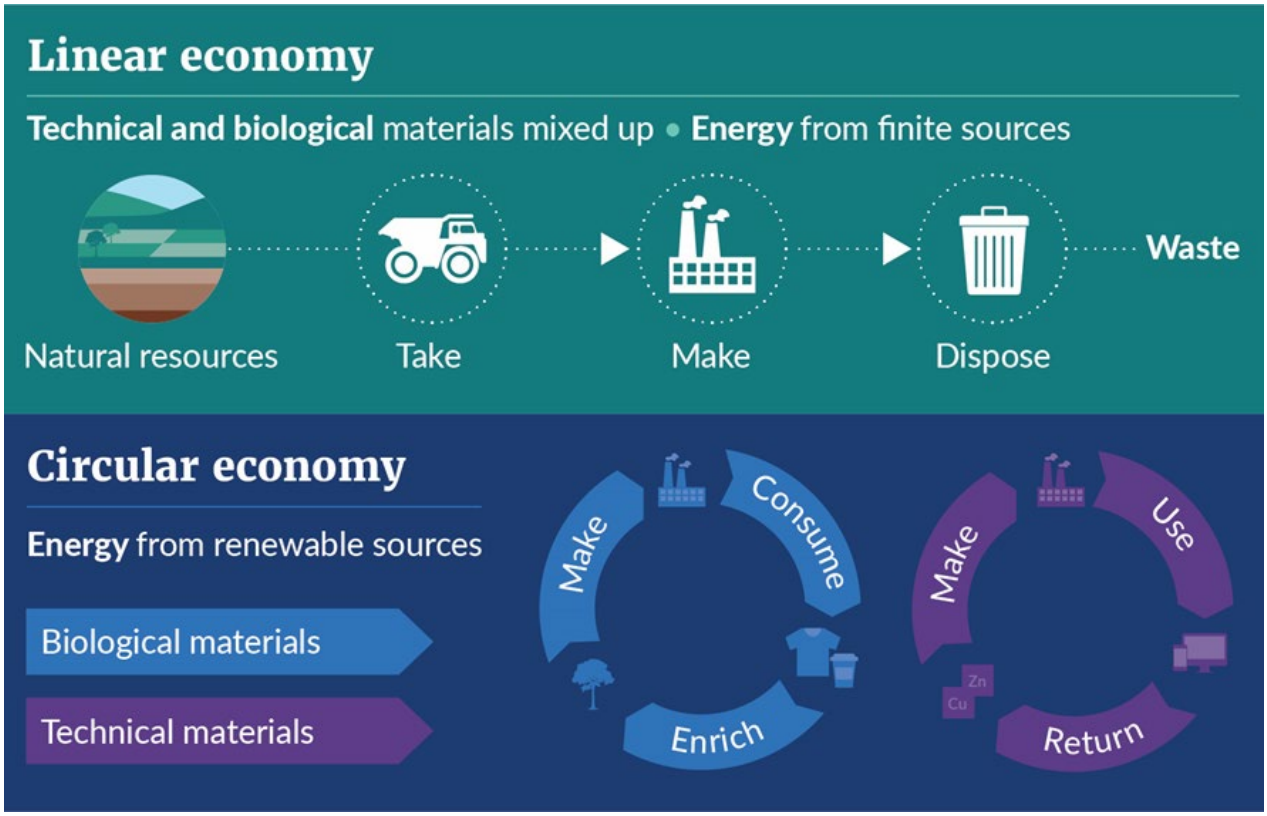

Figure 3: Linear versus circular economy

[14] The Ministry for Business, Innovation and Employment (MBIE) has been leading research into a New Zealand's Circular Economy Strategy as part of the first Emissions Reduction Plan. It procured research in 2023 into evidence about the impacts, barriers, and enablers for a circular and bioeconomy economy in Aotearoa. Refer to Te Waihanga Infrastructure Commission's 30-year Infrastructure Strategy…

The waste hierarchy is a key tool to support the circular economy. A version of the waste hierarchy is presented in the NZWS (Figure 4) which shows the top layers of the waste hierarchy (reduce and reuse) as being 'circular management' resulting in waste avoidance. The middle tier of recycling intersects with both 'circular management' and the lower tier, 'waste management' activities. The yellow line in Figure 4 is the point at which a product or material has no further use in its original form and needs to be managed as waste – either recycled, composted, recovered for another value, or disposed of.

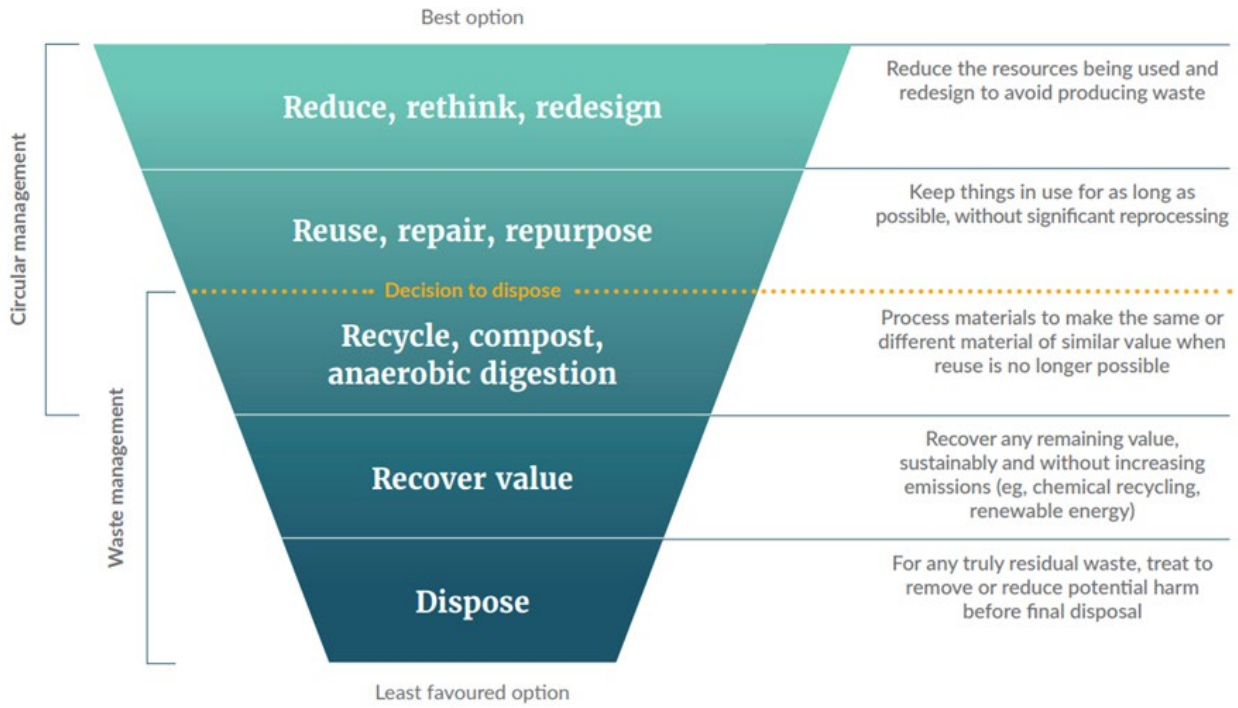

Figure 4: Waste hierarchy (as presented in the NZWS)

3.2. Key legislation

The following legislation (and the associated amendments, regulations and guidelines) enables and regulates the planning and delivery of waste management and minimisation services in New Zealand:

- Waste Minimisation Act 2008 (WMA) – including the Waste Disposal Levy Amendment Act 2024, Information Requirements Regulations 2021 and its Amendment Regulations 2023, Tyres Regulations 2023, Plastic Bags Regulations 2018, Microbeads Regulations 2017 and the Calculation and Payment of Waste Disposal Levy Regulations 2009.
- Litter Act 1979.
- Climate Change Response Act 2002 – including the Emissions Trading Scheme Amendment Act 2002, Zero Carbon Amendment Act 2019 (includes requirement for an Emissions Reduction Plan, ERP) and the Emissions Trading Reform Amendment Act 2020.
- Local Government Act 2002.
- Resource Management Act 1991, including National Environmental Standards and regulations.

- Hazardous Substances and New Organisms Act 1996.
- Health Act 1956.
- Health and Safety at Work Act 2015.
- Building Act 2004.
- Biosecurity Act 1993.
- Civil Defence Emergency Management Act 2002.

Section 7 discusses the future implications of recent and proposed legislation changes.

3.3. Policy and legislative changes since 2017

Since the last Nelson Tasman Waste Assessment was produced in 2017, there have been significant shifts in national policy and legislative frameworks that support the planning and delivery of waste services. Key changes include:

- The Waste Disposal Levy has increased for, and expanded to, most classes of landfills (Class 1 to Class 4[15]). For example, between July 2019 and July 2024, the levy for landfills classified as 'Class 1' increased from $10/tonne to $60/tonne. Amendments to the WMA 2008, made under urgency in May 2024, will see the levy continue to incrementally increase for Class 1 to 4 landfills (e.g. $5 per tonne per year for class 1 and 2 landfills to 1 July 2027, and from $10 per tonne to $20 per tonne by 2027 for class 3 and 4 landfills).
- Expansion of the waste reporting system to include transfer stations, waste activity types and qualities of diverted materials, under Information Requirements Regulations 2021 and 2023 amendments.
- Auctioning has been introduced into the New Zealand Emissions Trading Scheme and the price of emissions units have been steadily increasing due to the price control settings within the auction system. Over the last 5 years the low has been $22.50/tonne and the high has been $88/tonne, with the currently price in around $50/tonne[16]. Landfill operators are required to surrender emissions units on a per tonne of waste disposed basis[17].
- In July 2020, the government announced six priority products for which regulated product stewardship schemes are required to be developed. The government also proposed a Container Return Scheme (CRS) for New Zealand for beverage containers, although this scheme's design and implementation was deferred in early 2023.
- Phasing out hard-to-recycle and single-use plastics. This started with single-use shopping bags in 2019 and then regulations were introduced in 2022 and 2023 to phase out other single-use plastic items, such as specific food packaging made from PVC or polystyrene plastic resins, straws, drink stirrers, produce bags, tableware (e.g. plastic plates, bowls, cutlery) and non-compostable fruit stickers. Further phasing out of other plastic single-use items is currently being considered[18].
- The introduction of the Climate Change Response Act Amendments in 2019 and 2020 and consequential publishing of the Government's emissions budgets and Emissions Reduction Plan (ERP).

[15] Waste disposal levy expansion | Ministry for the Environment
[16] Carbon Price NZ – MyNativeForest
[17] Note, the intent of the combined levy and emission charge increases is to create a greater economic incentive for waste generation to be avoided.
[18] Phasing out hard-to-recycle and single-use plastics | Ministry for the Environment

- In September 2022, Treasury[19] responded to NZ's first 30-year Infrastructure Strategy which included recommendations relating to waste and resource recovery infrastructure, as published in 2022 by Te Waihanga, the New Zealand Infrastructure Commission[20].
- In 2023, Ministry for Business, Innovation and Employment (MBIE) procured research into evidence about the impacts, barriers and enablers for a circular and bioeconomy economy in Aotearoa[21], which was in response to actions set out in the Emissions Reduction Plan.
- The standardisation of kerbside recycling collection services for residents in urban areas was introduced on 1 February 2024 to create consistency across the country for the types of recyclable materials that are accepted in council collections. Government policy proposals, as indicated in the NZWS, may require councils to provide kerbside food scraps collection service to urban households in the future and meet kerbside recycling diversion targets, however no decisions have been made by Cabinet to date.
- Ongoing government investment in resource recovery infrastructure through the Waste Minimisation Fund (WMF) funded from the Waste Disposal Levy, the Climate Emergency Response Fund (CERF), and establishment of the Plastics Innovation Fund (PIF, under the WMF umbrella, which has recently closed[22]). Priorities for WMF grants relate to key waste streams, including Construction & Demolition (C&D) waste, organics, and plastics[23]. Noting also the scope of investment for the proportion of government's Waste Disposal Levy funds has recently expanded, under the Waste Disposal Levy Amendment Act 2024, to address the impacts of legacy waste activities and climate change, such as contamination site remediation, replacement/repair of waste infrastructure post severe weather events, and improvements to freshwater catchments[24].

3.4. 2019 Joint Waste Management and Minimisation Plan

The 2019 Waste Plan's vision is that *'the communities of the Nelson-Tasman Region work together to reduce waste'*, with the aim to reduce waste to landfill per capita by 10% by 2030.

This vision is supported by the following three goals, and nine associated objectives. The goals begin with the statement, "*The Councils will, with the community…":*

1. **Avoid the creation of waste.**
   - our community's culture makes waste avoidance and reduction the actions of choice.
   - members of our community work together collaboratively to avoid the creation of waste.

2. **Improve the efficiency of resource use.**
   - our communities have access to good information on the efficiency of resource use.
   - our community can easily use a wide range of services to divert material away from landfill.
   - the proportion of material diverted from landfill will increase over time and the quality and range of diverted material will improve.
   - our community will actively support and encourage product stewardship.

[19] Government response to Rautaki Hanganga o Aotearoa, New Zealand Infrastructure Strategy | The Treasury New Zealand
[20] Strategy | Rautaki Hanganga o Aotearoa | New Zealand Infrastructure Strategy (tewaihanga.govt.nz)
[21] Circular Economy and Bioeconomy | Ministry of Business, Innovation & Employment (mbie.govt.nz)
[22] Plastics Innovation Fund | Ministry for the Environment
[23] Waste Minimisation Fund | Ministry for the Environment
[24] Overview of the waste disposal levy | Ministry for the Environment

3. **Reduce the harmful effects of waste.**
   - our community can easily access and use services for the safe disposal of waste.
   - we manage our waste management services to avoid or mitigate any adverse public health, cultural and environmental effects.
   - waste management and minimisation services and all related activities are safe to operate and use.

The 2019 Waste Plan has seven guiding principles (Global Citizenship, Kaitiakitanga, Product Stewardship, Full Cost Pricing, Life-Cycle Principle and the Precautionary Principle). The actions for the Councils to implement are set out through 20 policies and 55 'methods', and the 2019 Waste Plan explains how these can be implementation and monitored.

The 2019 Waste Plan also includes an overview of the funding methods available to enable the goals and objectives to be achieved.

Council-owned landfills at York Valley and Eves Valley are governed through the Board of the Nelson-Tasman Regional Landfill Business Unit (NTRLBU), which has its own Iwi representation arrangements, and the landfills are managed by a separate Activity Management Plan developed by the staff within the NTRLBU. The NRTLBU is required to operate in accordance with direction set out in the Councils' Joint Waste Plan. This is because the longevity and capital requirements of the landfills are directly impacted by future waste demands.

3.5. Other relevant plans and strategies

Figure 5 shows the connections between key central government waste policy and legislation and the Council's key waste planning documents. There are strong linkages between the Councils' Long-Term & Annual Plans with the Activity Management Plans for the Councils, respective waste services. There are also connections between the Councils' plans and those of the Nelson Tasman Regional Landfill Business Unit.

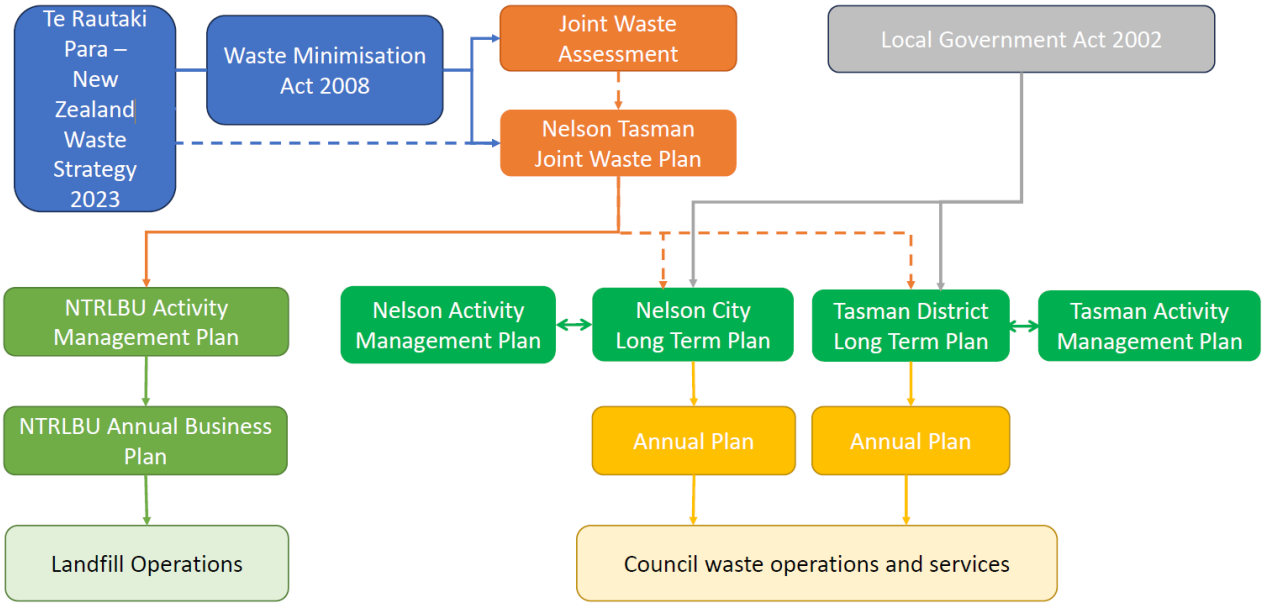

Figure 5: Linkages between Joint Waste Plan and other key council plans and government legislation

Table 1 expands upon the suite of plans and strategies from the two Councils and their relevance to waste management and minimisation activities in the Region.

Table 1: Councils' plans and strategies with relevance to regional waste planning

Plan/Strategy	Description	Relevance to regional waste planning
Long Term Plans – sets out Council's activities and priorities over the next 10 years and is reviewed every three years.	Nelson's Long-Term Plan, 2024 – 2034- "Beyond the Storm - Kei tua i te āwhā" with community outcomes that are consistent with Tasman District Council.	• Activities and budgets for council's 'Solid Waste Activity' are set out, with priorities that reflect the Joint 2019 Waste Plan. • The LTP includes a 30yr Infrastructure Strategy which includes consideration of waste infrastructure and operational expenditure (although excludes landfills as these are managed by the NTRLBU). • Significant solid waste issue identified in the LTP/Infrastructure Strategy relates to cost-effectively diverting waste from landfill, supporting a culture where people avoid the creation of waste, developing an approach where resources are reused, Councils 'walking the talk' on waste minimisation, reducing the emissions caused by waste and waste services diverting specific waste streams and supporting effective domestic recycling.
	Tasman's 10-Year Plan 2024 – 2034 – "Investing in our Future" with community outcomes that are consistent with Nelson City Council.	• Activities and budgets for waste activities are set out based on Tasman District Council's Waste Management and Minimisation Activity Plan which reflects the strategic direction set by the 2019 Waste Plan. • Key waste issues and community outcomes are identified within the LTP with a specific focus on meeting levels of service performance measures for waste activities, reducing waste going to landfill and ensuring the incidence of illegal dumping does not increase over time. • New capital expenditure includes a new Richmond Materials Recovery Facility, improvement in data collection to enable reporting to MFE under new legislation, investment in closed landfills, developing a detailed business case together with Nelson City Council to inform the decision-making process as to whether to provide a food scraps collection to households, and the procurement of a new contract for the operation of the regional MRF presents an opportunity to further explore shared services and investment collaboration with Nelson City Council.
Resource Management Plans - to help Council carry out its resource management functions to promote the sustainable	The following plans set out the resource management frameworks of the two unitary authorities: Nelson – • Nelson Regional Policy Statement 1997 (Chapter	• Guides the use of natural and physical resources, where and how the region will grow, and related land development. • Establishes rules and the regulatory framework through which certain activities are permitted and other activities and land uses require consents from council. These can include consents for a range of waste-

Plan/Strategy	Description	Relevance to regional waste planning
management of natural and physical resources.	13 Solid Waste Management) • Nelson Resource Management Plan • Nelson Air Quality Plan Tasman - • Tasman Regional Policy Statement (operative 2001) • Tasman Resource Management Plan (operative 2001)	related activities and operations in the region, such as resource recovery centres, transfer stations, landfills, cleanfills, and also the application of biosolids to land, and removal of potentially contaminated soils as part of land development. • Enforcement and compliance of the Plan's rules interact with other waste activities also, such as managing litter, illegal dumping, burning of waste, and contaminated land management. • New RMA legislation proposes that Nelson and Tasman prepare a joint Regional Spatial Strategy and Natural and Built Environment Plan. Scoping work is underway.
Climate Strategy and Action Plans	Nelson's Climate Action Plan (approved 2021)	• Brings together all the climate change projects and actions the Council is funding as part of its LTP, including waste-related actions relating to reducing emissions by diverting organic wastes from landfill, and reducing emissions through avoiding waste generation and material consumption.
	Draft Tasman Climate Response Strategy and Action Plan (2023)	• The strategy and its implementation plan are expected to be finalised in 2024. The draft plan includes waste related actions such as reducing emissions through reduced consumption and waste disposal, as well as consideration of climate change adaptation measures that help provide for resilient waste infrastructure and services
Activity Management Plans (AMP) – details activities specific to council's assets and activities, including levels of service, risks, financials, and improvement plan. These plans are prepared and reviewed in line with Council's LTP three-year cycle	Nelson City Council's Solid Waste AMP 2024-2034 Tasman District Council's Waste Management and Minimisation AMP 2024-2054	• Details activities specific to Nelson and Tasman's waste operations and services, including waste minimisation initiatives, kerbside collections, operation of resource recovery centres/transfer stations, and management of closed landfills and litter/illegal dumping.
	Nelson Tasman Regional Landfill Business Unit (NTRLBU) AMP, Mahere Ruapara 2024 - 2034	• Details the management, financial, engineering and technical practices specific to the landfill operations and assets – to ensure that the required level of service is provided effectively for the landfill activity.
	Nelson Regional Sewerage Business Unit (NRSBU) Wastewater AMP, Mahere Waipara 2024-2034	• Focusses on the activities, outcomes and services NRSBU is delivering and the assets needed to deliver these over a 10yr period, including biosolids treatment and disposal/reuse.
Council-Iwi Partnership Agreement	Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement –.	• Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Principles: - **Kotahitanga** – We navigate and paddle together in unison. He reretahi tā tātou whakatere tahi me te hoe tahi - **Honotanga** – We recognise each other's autonomy and mandate. E whakaū ana tātou i te mana motuhake me te mana o tēnā, o tēnā - **Tauritetanga** – We work together to achieve equity in outcomes. Ka mahi tahi tātou ki te whakatutuki i te tautika o ngā hua

Plan/Strategy	Description	Relevance to regional waste planning
		- **Kaupapa Mau Tonu** – We are in for the long-term, for our mokopuna. He karioi tā tātou ū, mō ā tātou mokopuna • **Tauutuutu** – We foster reciprocity and mutual benefit. Ka poipoia te tauutuutu me te painga tahi
Future Development Strategy (FDS)	Nelson Tasman Future Development Strategy is a high-level strategy that identifies a spatial growth pattern and future housing and business sites over the next 30-years. The FDS is required to meet the Government's National Policy Statement on Urban Development 2020.	• One of the challenges of growth includes the generation of waste – both associated with development, and day to day living. • The strategy sets out Iwi and hāpu values and aspirations for urban development as well as climate change considerations. The strategy has relevance to how and where future waste facilities and services may be required to serve the community and to respond to the challenges of reducing waste and emissions. • The FDS informs council strategies and plans, including Long Term Plans, Activity Management Plans, and Resource Management Plans
Procurement Policy/Strategy	Nelson City Council Procurement Policy 2021-26 Tasman Procurement Policy 2020	• Opportunities exist to minimise waste and support the circular economy through the councils' procurement of goods and services. • Nelson City Council's policy seeks to work with the challenges of market constraints to achieve great procurement outcomes. One of the policy's initial focus areas includes reducing emissions, waste and environmental pollution. • Tasman's policy mentions the principles of sustainability need to be considered throughout the entire procurement process, including 'environmental procurement'.
Bylaws	Nelson's Urban Environments Bylaw 225 (adopted 2022) Nelson's Wastewater Bylaw 229 (2021) Tasman District Council's Wastewater Bylaw (2022)	• Nelson City Council's Urban Environment Bylaw protects public health, safety and nuisances by setting local controls relating to urban life. It includes rules relating to what cannot be put into public litter bins. • Council's tradewaste bylaws regulates trade waste and domestic wastewater discharges, to protect public health and safety, and to manage and protect our infrastructure. e.g. restricts the use of refuse grinders in any trade premises.
Regional Economic Strategy	Project Kōriri - Nelson Tasman Regeneration Strategy 2021	• A regional 10yr economic plan developed by local agencies and endorsed by Nelson City Council and Tasman District Council in August 2022. It is underpinned by Te Tauihu Intergenerational Strategy and its purpose is to support the region in *"navigating the next decade of change to rebuild from the COVID-19 pandemic and tackle the pressing challenges ahead".*

3.6. Iwi environment management plans and strategies

It is acknowledged that waste minimisation and waste management activities are interconnected across environmental, cultural, social, and economic spheres and cannot be viewed in isolation from key priorities and issues of significance to Iwi/Māori.

Iwi/hapū aspirations and priorities relating to key values or principles associated with the natural environment, including kaitiakitanga, are often expressed in Iwi Management Plans. These serve as important guides to inform local government resource management decision-making and planning processes and to support partnerships with mana whenua. The issues and priorities set out in Te Tauihu Iwi plans help play a role in shaping how waste/resource recovery activities can be planned, enabled, and implemented across the region.

The following Iwi management plans are currently lodged with the Councils:

1. Te Tau Ihu Mahi Tuna (Eel Management Plan) 2000 (all Iwi)
2. Ngāti Koata - Iwi Management Plan 2002
3. Nga Taonga Tuku Iho ki Whakatū Management Plan 2004 (Ngāti Rārua, Ngāti Toa Rangatira, Te Ātiawa, Ngāti Koata, Ngāti Tama)
4. Te Atiawa - Iwi Environmental Management Plan 2014
5. Ngāti Kuia - Pakohe Management Plan 2015
6. Ngāti Tama - Environmental Management Plan 2018
7. Ngāti Rārua - Piopioia Te Ao Turoa Environmental Strategy 2021

Five of these Iwi management plans or strategies provide specific guidance to waste-related issues, particularly the more recent plans from Ngāti Rārua (2021) and Ngāti Tama (2018). By integrating Iwi perspectives into the Councils' waste management planning processes and projects, the region can develop more culturally responsive, environmentally sound, and community-aligned approaches to resource recovery and waste management.

In addition to Iwi management plans / strategies, the 2022 Te Tauihu Intergenerational Strategy is a further relevant document of significance to Iwi and the wider communities of the region. It is comprehensive, long-term plan for the Tasman, Nelson, and Marlborough regions centred on a vision **"Tūpona Pono: To Be Good Ancestors**". It sets out to improve wellbeing across eight interconnected outcomes, with a focus on sustainability, equity, and Māori values and is referred to in the Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement. Three of its 17 actions refer directly to waste minimisation and management activities across the region:

- "Initiatives (current and new) to transition to **zero waste** that is linked into a **circular economy** approach".
- "A REGIONAL RESILIENCE TASKFORCE to develop projects across some or all of the following areas... A Regional Procurement Policy (including Social Procurement and **Sustainability**)...; **Zero waste**…; **Resilience to natural disasters'.**
- "A REGIONAL IMPACT INVESTMENT FUND for existing and new businesses who are focused on improving Te Taiao (The Natural World) in the areas of…**circular economy and carbon zero**…".

The development of the Intergenerational Strategy was convened by Wakatū Incorporation in partnership with the three Councils of Te Tau Ihu, along with Ngā Iwi o Te Tauihu (Ngāti Apa, Ngāti

Kuia, Rangitāne, Ngāti Tama, Te Ātiawa, Ngāti Koata, Ngāti Toa and Ngāti Rārua), Government agencies, Nelson Tasman Regional Development Agency, Nelson & Marlborough Chambers of Commerce, local businesses, community groups, and the Nelson Marlborough Institute of Technology.

Ensuring Iwi representation on the Waste Plan Review Working Party is a key action to support the Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement, given that Iwi / Māori participation in regionally significant decision-making processes is a key principle of the Agreement. Representation, alongside engagement, ensures a level of cultural oversight is given to the review process, while enabling opportunities to strengthen ongoing reciprocal relationships, and reflect Iwi priorities and aspirations in regionally significant planning decisions.

4. PROGRESS AGAINST THE 2019 JOINT WASTE MANAGEMENT AND MINIMISATION PLAN

Progress against the actions in the 2019 Waste Plan was reviewed by a team of staff from both Councils. The team also reviewed progress against the waste reduction indicators as set out in the 2019 Waste Plan. Detailed commentary on the review can be found in Appendix D and progress against the waste reduction indicators can be found in Appendix E.

Key findings are summarised below:

- While the Councils are making progress on all 55 ‘methods’ set out in the plan to deliver services and programmes, it is difficult to assess whether sufficient progress is being made due to the scope that each one entails. There would be benefit in reducing the overall number of objectives, policies and methods and making these more specific and measurable, so that the Councils and their communities can see tangible progress towards a low waste, low carbon, circular economy. New services or initiatives of significance include:
    - Embedded the Rethink Waste Whakaarohia programme to promote and facilitate a range of local waste minimisation initiatives (e.g. Second-hand Sundays, Don’t Bin Batteries, Love Food Hate Waste, Enviroschools).
    - As well as establishing a waste minimisation engagement programme with the construction and demolition sector, secured a central government grant to establish a diversion facility at the Richmond Resource Recovery Centre and at the Nelson Waste Recovery Centre (in partnership with Nelson Environment Centre) to trial the recovery of construction and demolition materials.
    - Significantly reduced emissions from the region’s landfills, through the work of the Nelson Tasman Regional Landfill Business Unit.
    - Commissioned research into food waste collection options and completed a household food scraps collection trial in Nelson, as well as securing government funding for a business case for organic kerbside collections, to inform any future decisions.
    - Continued to provide grants and subsidies for community waste minimisation initiatives (e.g. electronic waste recovery, Repair Cafes, home-composting, Zero Waste events, and implementing programmes such as FoodPrint and Recycle a Device).
    - Upgraded council-owned resource recovery facilities to introduce weight-based charging and improve safety measures.
    - Installed solar-powered compactor rubbish bins in Nelson City and Tasman district; and
    - Continued advocacy, by both Councils, to central government on waste policy and proposed legislation changes.

- Staff resourcing has continued to limit delivery in some areas e.g. supporting commercial waste minimisation.
- There are 13 waste reduction indicators in the 2019 Waste Plan. Progress against these has been difficult to monitor, due to a lack of data consistency and availability. There would be benefit in reducing the number of indicators to be measured, focusing on those for which consistent data is available. A smaller number of measurable indicators will reduce the resourcing required to report against the indicators and focus attention on the effectiveness of the initiatives implemented from the 2019 Waste Plan.
- Kaitiakitanga is articulated as a principle in the 2019 Waste Plan, and there are opportunities to work with Iwi in this area, as kaitiaki and as treaty partners.
- Collection of consistent data remains a challenge, particularly the source and scale of the commercial and industrial waste and resource recovery sector. These data gaps contribute to the challenge of monitoring progress against the 2019 Waste Plan.
- Implementing 'Council Walking the Talk' initiatives has been challenging, due both to staff resourcing and competing priorities. There are areas within both Councils where good progress has been made, such as Nelson City Council event venue waste minimisation initiatives, deconstruction trials and including waste minimisation in some aspects of tendering. Sharing the success of these initiatives will help other parts of the Councils to see how they too can "Walk the Talk".
- Advocacy at a national level has been well supported by both Councils.

5. WASTE MANAGEMENT AND MINIMISATION INFRASTRUCTURE AND SERVICES

This section describes the range of waste and resource recovery infrastructure, and services provided by the Councils and other commercial waste operators and community organisations in the Nelson-Tasman Region.

5.1. Overview of waste and resource recovery system

Figure 6 below illustrates some of the key waste services and infrastructure that exist in the Region and how waste materials pass through the Region's waste and resource recovery systems.

A list of the Councils' current waste service contracts is provided in Appendix F. Appendix G and H list the private operators in the Region which provide waste minimisation and management services and infrastructure that the Councils are aware of. It is acknowledged that there remains a lack of information to adequately account for services and associated infrastructure that support the top two tiers of the waste hierarchy (reduce and reuse), despite their importance in contributing to the overall waste and resource recovery system in the Region.

There is also a lack of information to fully represent the various waste services and infrastructure provided by the private sector. The inventory provided in this section and in Appendix G and H is therefore not exhaustive but is sufficiently accurate to determine future planning needs.

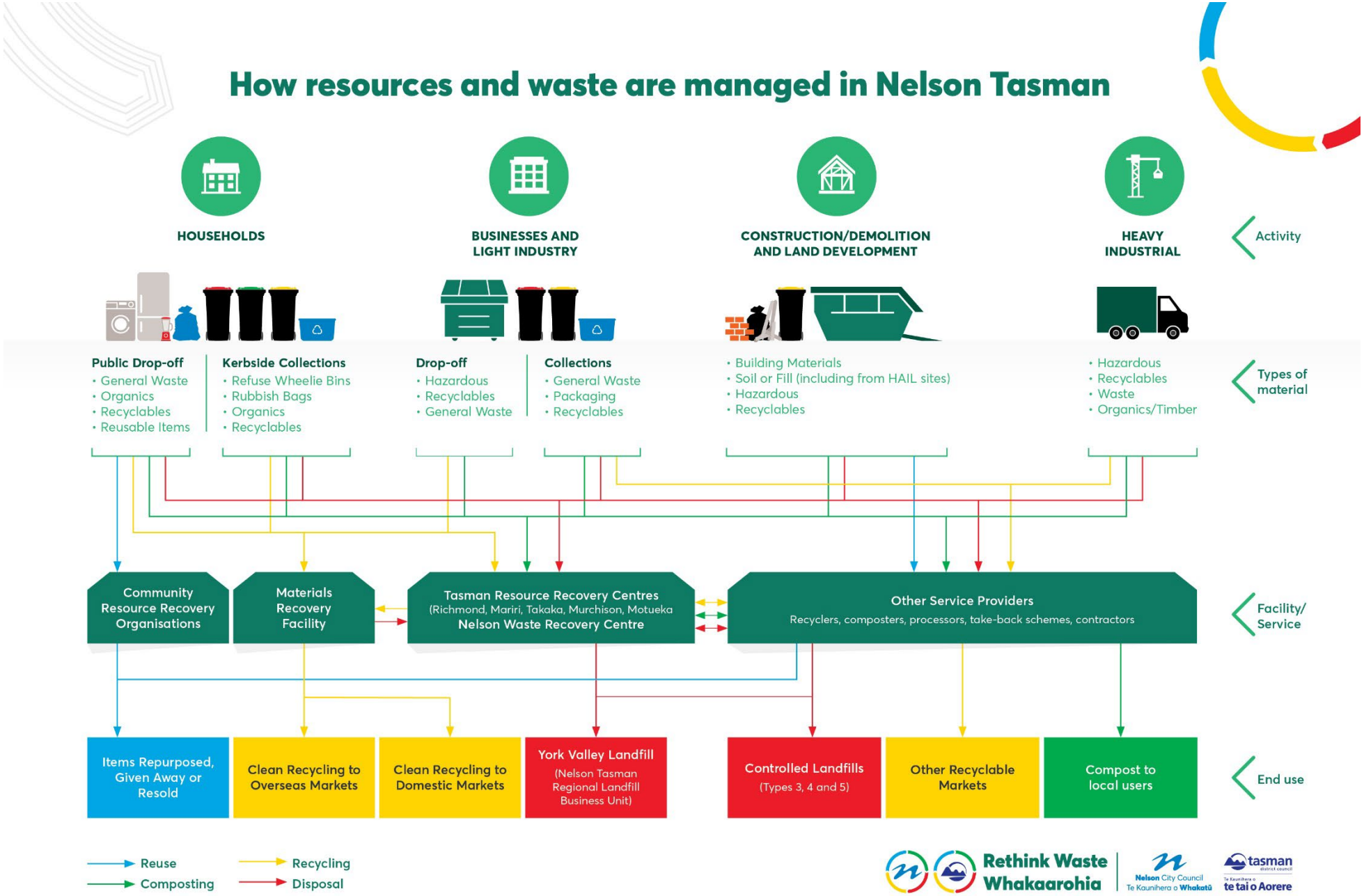

Figure 6: Schematic of Nelson-Tasman waste and resource recovery services and infrastructure

5.2. Infrastructure and facilities

5.2.1. Waste/Resource Recovery Centres

There are five resource recovery centres (RRCs) in the region, owned by Tasman District Council, and one further facility owned by Nelson City Council which operates as a Waste Recovery Centre (WRC). At these facilities recyclable and/or reusable materials are separated for diversion, and the remaining materials are taken to landfill for disposal. Tables 2 & 3 below provides a list of the Council-owned facilities and privately-operated facilities, and the key services/waste streams managed at these sites.

Table 2: Council-owned waste/resource recovery facilities

Name	Operator	Location	Accepted Materials
Richmond RRC	TDC	14 Fittal Street, Richmond	Accepted materials include: • saleable household items including furniture and clothing (not accepted Richmond, Mariri) • clean recycling • scrap metal (not accepted at Richmond until further site development is completed) • general waste • green waste (not accepted Richmond), • cleanfill and rubble* (not accepted at present, Mariri, Richmond in the future) • household hazardous waste*to be accepted from September 2025 • building materials including timber/wood (accepted for reuse at Takaka, Collingwood, Murchison) • batteries • paints • oil • agrecovery (not accepted at Takaka and Collingwood) • whiteware and appliances, • used tyres • electronic waste for repurpose at Takaka.
Mariri RRC	TDC	93 Robinson Road, Motueka	
Tākaka RRC	TDC	45 Scott Road, Tākaka	
Collingwood RRC	TDC	93 Collingwood-Bainham Main Road, Collingwood	
Murchison RRC	TDC	41 Matakitaki West Bank Road, Murchison	
Nelson WRC	NCC	Vivian Place (off Pascoe Street, Tahunanui	Accepted materials include: • saleable household items including furniture and clothing • clean recycling • scrap metal • general waste • garden waste • hazardous waste • building materials including timber/wood • electronic waste and alkaline batteries, whiteware and appliances, • soft plastics

Table 3: Reuse, Repair and Redistribution facilities

Name	Operator	Location	Accepted Materials
Nelson Environment Centre	Nelson Environment Centre	6 Vivian Place, Annesbrook, Nelson	Services include: • kai rescue • reuse shop • electronic waste • business advice
Habitat ReStore	Habitat for Humanity	166 Tahunanui Drive, Tahunanui	Accepted materials include: • saleable household items including furniture, toys books and clothing • building materials including timber/wood and roofing iron • electronic waste for repurpose. • whiteware and appliances for repurposes
Weka Peckers Recycling	Weka Pecker Limited	97 Robinson Road, Lower Moutere	Accepted materials include: • saleable household items including furniture and clothing • clean recycling • timber/wood • electronic waste • whiteware and appliance
Sims Metal	Sims Metal Ltd	2 Merton Place, Stoke	Accepted materials include scrap metal
Oji Fibre Solutions	Oji Fibre Solutions	Motueka and Nelson	Accepted materials include paper, cardboard, soft plastics

In addition to the above facilities, other services and infrastructure exist which support the reuse, repair and redistribution of various goods, packaging systems, and surplus food. These include repair shops, repair cafes, second-hand shops (physical and online), online sharing-economy platforms, food rescue enterprises, as well as wash plants and refilleries for reusable packaging systems (both for business to business and business to consumer) and related reverse logistic assets/services.

5.2.2. Materials Recovery Facility

Tasman District Council owns a 1,000 m² building within the Richmond RRC site which accommodates the region's only Materials Recovery Facility (MRF). The MRF is where recyclables from kerbside collections are sorted to be on-sold to end-markets. The facility is owned and operated by Smart Environmental Ltd under a Build-Own-Operate-Transfer (BOOT) contract with Tasman District Council. Ownership of the MRF transfers to Tasman District Council in 2025, with the operation of the facility continuing to be contracted.

The facility processes all non-glass materials collected from both Councils' kerbside collection services and sorts these into different categories (e.g. plastics, cardboard, paper, metal) using a mixture of manual and automated processes. When the materials have been sorted, they are sold/distributed to re-processors and manufacturers where they are used to create new products. Glass is sent separately for processing in Auckland.

Commodity prices for recyclables have fluctuated significantly in recent years, following China implementing its 'National Sword' policy. It has been challenging to find stable markets for certain

recyclables and this has led to various government responses, including phasing out particular single use plastics, a review of national recycling and resource recovery infrastructure, increasing funding contributions towards local MRF sorting and processing plants, standardising kerbside collection services, and funding the design of a Container Return Scheme (CRS).

In 2019 Smart Environmental Ltd received a $300,000 grant to install new technology to improve sorting capability at the MRF. Funding was matched by co-investment by Smart Environmental Ltd. The Councils also introduced service changes in 2019 to address the changing markets, including limiting the range of plastics collected, and a focus on reducing contamination in kerbside collections and within the final MRF-sorted products.

5.2.3. Composting facilities and other organic waste processing infrastructure

The Councils do not own or operate any composting facilities or organic waste processing infrastructure in the region but hold contracts with commercial facilities to process greenwaste accepted at RRC and WRC facilities. The following composting operations are available in the region.

- **Greenwaste to Zero** is a commercial composting facility in Richmond open to residential and business customers. In addition to garden waste, other wood waste and plasterboard is composted and nominal amounts of approved compostable packaging.
- **Azwoods (Wholesale Landscaping**) has sites in Brightwater and Waimea West and processes garden wastes, as well as forestry and wood waste and some plasterboard. Azwoods also produce wood pellets for use in appropriately designed boilers.
- **Community Compost** has a site in Nelson to process small scale food waste and provides a food scraps collection service, as well as a pay-as-you-go food scrap bucket option through Tims Gardens in Nelson.

5.2.4. Kerbside bins, public litter bins, public-place recycling bins

There are approximately 40,000 properties in the Nelson-Tasman Region that are eligible for the Councils' kerbside recycling service. Details on the collection services provided is included in Section 5.2.3. In Nelson, these bins become 'chattels' of a property, while in the case of Tasman they remain the property of Tasman District Council 's recycling collection contractor and transfer to Council ownership at the end of the contract term.

The Councils provide over 150 litter bins for public use which are located in parks, reserves, in townships and street side locations. These include 23 solar powered compactor bins in Tasman and 54 of the same bins introduced to the Nelson CBD recently. These bins can hold up to five times more than a regular street bin and contribute to emissions reductions through requiring less frequent emptying as they generate automatic messages when full.

There are also public-place recycling bins located in high-use areas across the Nelson-Tasman Region. The cost to implement these bins was originally funded by a government public-place recycling initiative in the mid-2000s, however the bins are prone to high rates of contamination. The Councils’ current approach is to phase out the use of these bins, as other Government initiatives become implemented e.g. a beverage container return scheme and regulated product stewardship scheme for plastic packaging. The government supported the design of a national scheme for beverage containers between 2019 and 2022, however its introduction has since been deferred.

5.2.5. Class 1 Landfills

Disposal facilities are facilities for the final controlled disposal of waste into or onto land. In 2016, the Waste Management Institute of New Zealand (WasteMINZ) developed a classification system for landfills and published its Technical Guidelines for the Disposal of Waste to Land[25].These guidelines were updated in September 2023 and classification system is used by the Ministry for the Environment to define the types of landfills subject to the government's Waste Disposal Levy regime (Table 4).

Between 2009 and 2020, the Waste Disposal Levy was only applicable to disposal facilities classified as Class 1 landfills, and the levy remained at $10/tonne for over a decade. Since 2020, the Government has increased the levy and expanded it to other classes of landfills. The landfill classifications and the applicable levies are shown in the table below.

Table 4: New Zealand Landfill Classification

Landfill Class	Waste Disposal Levy, from			Waste Types
	1 July 2022	1 July 2023	1 July 2024[26]	
Municipal solid waste landfill / disposal facility (Class 1)	$30/tonne	$50/tonne	$60/tonne	Mixed municipal wastes from residential, commercial and industrial sources including some contaminated soils.
Construction and demolition / industrial fill (Class 2)		$20/tonne	$30/tonne	Solid waste from C&D activities, managed fill, controlled fill and clean fill materials
Managed or controlled fill (Class 3 and 4)		$10/tonne	$10/tonne	Natural non-contaminated soils, contaminated but non-hazardous soils and other inert C&D materials
Clean fill (Class 5) and industrial monofills		No levy, reporting only	No levy, reporting only	Only clean fill material, such as clay, soil and rock that are free of combustible, putrescible, degradable or leachable components.

The Councils jointly own two Class 1 landfills, through the NTRLBU; one at Eves Valley and one at York Valley.

The Eves Valley Landfill, located in Waimea West was "mothballed" in 2017, upon the establishment of the NTRLBU, and since then all waste from the region has been taken to the York Valley Landfill, in Nelson.

The York Valley Landfill is located approximately 4km south of Nelson City. The landfill is consented to accept municipal solid waste until 2034, and there is capacity to further expand the

[25] Technical Guidelines for Disposal to Land (wasteminz.org.nz)
[26] The Government has scheduled further increases to the levy. Refer to section 3.3.

landfill if necessary. Waste is transported direct to landfill by commercial customers and via the Tasman RRCs and Nelson WRC. There is no direct access to the landfill for residential customers.

NTRLBU collects landfill gas through a gas extraction system and sells it to Te Whatu Ora to provide water heating for the Nelson Hospital. Excess landfill gas that is captured but not required at Nelson Hospital is destroyed onsite (flared) at York Valley Landfill. This is to covert the landfill gas from methane (a potent greenhouse gas) to CO2 to reduce the greenhouse gas impact of the site. Gas capture and destruction rates have been significantly improved through expansion of landfill infrastructure and use of technology. As a result, since 2018 the Unique Emission Factor for the landfill has moved from the default of 1.19 in 2018 to 0.091 in 2023.

Eves Valley Landfill has remaining capacity to receive waste should this be required and is retained by the Councils as a potential future regional landfill facility. The NTRLBU is seeking replacement consents for Eves Valley to accept up to one years' waste from the Region, in case of unforeseen temporary closure of the York Valley Landfill. The renewal of resource consents for Eves Valley Landfill has not yet been finalised.

The closest neighbouring landfill to the Nelson-Tasman Region is the Bluegums Landfill located in the Marlborough region, south of Blenheim on Taylor Pass Road. It accepts approximately 50,000 tonnes of waste per annum and is expected to serve the Marlborough region for the next thirty years.

5.2.6. C&D fills, managed fills, controlled fills and cleanfills (Class 2-5 landfills)

Information obtained from the Ministry for the Environment, as well as staff knowledge indicates that there are:

- no Class 2 construction & demolition (C&D) landfills or monofills in the region,
- four Class 3 & 4 landfills (referred to as managed fills or controlled fills), all located in Appleby, adjacent to the Waimea River, and
- nine Class 5 cleanfill facilities, eight of which are privately-owned facilities.

Of the nine known cleanfill sites (Class 5), five are in Nelson, two of which are located at Wakapuaka Road and one each at The Glen Road, York Valley Road and Suffolk Road. Cleanfills in Tasman are located in Motueka, on Douglas Road, Golden Bay, at Rototai, and the Gowan Valley, on Gowan Valley Road.

It is likely that there are further managed, controlled or cleanfill sites in the region that are not as yet known or recorded.

A list of the sites that are reporting to the Ministry for the Environment is provided in Appendix I.

Cleanfills are not specifically controlled through the Tasman Regional Management Plan (TRMP) and there is currently no clear distinction in the Nelson-Tasman Region between Class 2 to 5 landfills. Most are referred to as cleanfills as these require much lower levels of engineering investment to prevent discharges into the environment and have very low or negligible, compliance costs. In 2005, Nelson City Council notified a Plan Change to the Nelson Resource Management Plan to enable greater control of what is disposed at private cleanfills.

Cleanfill disposal charges are markedly lower than landfill charges, and Class 5 landfills are not subject to the Waste Disposal Levy. The lack of specific controls or clear guidance on cleanfill acceptance criteria and changes that were proposed through the RMA reforms and the now-

repealed Natural and Built Environments Act have introduced a lack of clarity on the fate of moderately or lightly contaminated materials.

This combined with an absence of Class 3 or 4 capacity has led to concerns among the industry that there will be increasing pressure on Class 1 landfill facilities to accept lightly contaminated soils, or for sites currently classed as Class 5 cleanfills to be upgraded to accept some level of contamination.

5.2.7. Closed landfills and contaminated land

Tasman District Council is responsible for 22 closed landfills, most of which are located on land managed by Council. The majority were operational landfills in the 1950s through to the 1970s and accepted domestic waste, rubble, farm waste and scrap metal at a time when burning of waste was a common practice. There are four known closed landfills in Nelson; two in public and two in private ownership. Nelson City Council manages the closed Atawhai Landfill which was operated as Nelson's primary disposal site from the 1940s until 1987. Both Councils' closed landfills are listed in Appendix J.

While the Eves Valley Landfill was closed in 2017, it retains some capacity to be available in an emergency at short notice. It is managed as a closed landfill by the NTRLBU, and a methane gas capture system has been installed to reduce greenhouse gas emissions from the site.

No closed landfill, except for the Eves Valley Landfill, has gas capture systems to flare-off methane, although most sites enable landfill gas to be vented through passive vents or through seepage through the landfill capping. Inspections by the Councils are based on visual observations of each of the sites and surrounding areas, as well as sampling of any potential contamination identified at the time of assessment. Some remedial works have been carried out following these inspections.

The Council's Activity Management Plans provide further details about the management of these closed landfill sites.

Contaminated land, including closed landfills on private land, is the responsibility of landowners and is managed through council's regulatory functions under the Resource Management Act 1991/Natural Built Environment Act 2023. Both councils hold records of HAIL (Hazardous Activities and Industries List) sites with the region.

5.3. Waste minimisation services

5.3.1. Advocacy and engagement to avoid and reduce waste.

The Councils facilitate and provide a range of behaviour change initiatives, education programmes, events, grants and subsidies through their shared Rethink Waste Whakaarohia programme[27]. These initiatives and services are designed to engage with different sectors within our community to promote the reduction of waste, provide education about reuse and recycling opportunities, and the safe disposal of residual and hazardous waste.

[27] Rethink Waste Workshops and Events - Nelson City Council; Rethink Waste | Tasman District Council

The programmes and activities are designed using data collected through surveys and by identifying priority waste streams and sectors of the community that require support. These initiatives, combined with collection and disposal services offered by the Councils and others, aim to reduce waste to landfill in the region and promote appropriate waste management and minimisation behaviour. Some of these initiatives are supported by national-led programmes (such as the Love Food Hate Waste programme[28]), and where possible draw on behaviour change research.

Current activities include:

- Grants to avoid or reduce waste, including funding strands for repair activities, event waste minimisation and community-led waste minimisation projects, alongside the use of subsidies supporting activities such as making e-waste recycling more affordable for residents. Example outcomes in the use of grants include building repair café capacity in Nelson and supporting businesses to build capacity to deconstruct buildings in Tasman.
- Encouraging waste reduction and diversion at events, particularly Council-sponsored events.
- Engagement of school students in waste minimisation (across early childhood centres, primary and secondary schools) through the Toimata EnviroSchools programme to support improved use of resources and develop a culture where people choose not to create waste.
- The *"Don't Bin Batteries"* campaign which provides free disposal options for batteries for Nelson and Tasman residents.
- Community-wide activities to encourage better use of resources, such as Second-hand Sunday.
- A focus on diverting and reducing food waste through home composting workshops and Love Food Hate Waste activities.
- Support for the building sector to reduce and divert construction and demolition waste.
- Support for litter reduction through free disposal of collected waste on public land.
- An engagement and education campaign to reduce contamination and increase capture rates for kerbside recycling.

The 2019 Waste Plan also places a focus on both Councils 'walking the talk'.

In addition to council-provided services, there are other organisations within the region that are involved with supporting households and businesses to minimise waste (refer to Appendix H).

5.3.2. Services that support the reuse and repair of goods and packaging

Second hand dealers, charity op-shops, local markets, goods/appliance repair services, and auction houses operate in Nelson and Tasman, which support the reuse and repair of goods across the Region. These are often supplemented by online selling and sharing platforms. Collection bins that accept clothing, sheets, towels, books and toys are also located in urban areas, which are operated by charities or businesses.

The Councils update and publish a regional Op Shop map, which includes guidance on 'good giving tips'. A subsidy to assist with waste disposal costs is offered by the Councils to the op-shops

[28] Love Food Hate Waste

in return for data on the types of waste handled. Both Councils also support reuse and repair events, such as Second-hand Sunday and Repair Cafes, including through making contestable grants available to support these activities.

Several not-for-profit organisations are actively supporting reuse and repair in the region. The Nelson Environment Centre (NEC) is part of the national network of environment centres and is located at the Nelson WRC. In addition to playing an important role in diverting waste through its e-cycling/recover and kai rescue programmes, it offers facilities and resources for local groups and acts as an information centre for reducing, recycling, reuse and recovery activities. NEC is funded through partnerships with the Councils, Government, the corporate sector, and a number of trusts and foundations. Additionally, Habitat for Humanity in Tāhunanui is taking an increasingly prominent role in waste minimisation, particularly in the diversion of construction and demolition waste.

Moving from a culture of single use to re-use has also been a key focus for the Councils in recent years. For example, Nelson City Council has supported a local organisation, Waste No More, who provides event waste minimisation services, including the provision and operation of a wash station for reusable serviceware to avoid/reduce single-use packaging waste from local events. The Councils also commissioned Reuse Aotearoa to undertake research in 2022 to support this waste assessment. The research focused on reusable packaging systems in the Nelson-Tasman Region and highlighted businesses and those in the community who are playing an active role currently, as well as identifying future opportunities to develop tools and resources to support reuse activities and the circular economy in the Region[29].

5.3.3. Kerbside and commercial recycling collections

The Councils provide fortnightly kerbside recycling collection services to all eligible properties across the region. The Councils' contractors collect mixed household recyclable materials (plastics, metal, paper/cardboard) via yellow-lidded 240L wheelie bins and collect glass containers from blue-coloured 45L crates. Households set out their bins and crates on the kerbside for collection.

The Nelson City Council recycling service is delivered by Nelmac Ltd and is mainly funded by Nelson City Council's share of Waste Disposal Levy revenue. The Tasman District Council service is delivered by Smart Environmental Ltd and is funded by a targeted rate. Both contracts expire in 2025.

The Councils' kerbside recycling contractors are encouraged to offer recyclable collection services to businesses in the Region on a commercial basis. Other commercial operators also provide collection services to residential and business customers for recyclable materials.

5.3.4. Garden waste and food scraps collections.

Households and businesses can opt into one of several user-pays garden waste collection services as provided by local commercial operators. Community Compost, based in Nelson, also provides a food scrap collection service for their customers. The Councils do not provide separate kerbside collections for food scraps or garden waste.

[29] Nelson-Tasman-RA-report-FINAL-V1.1cAug-20-Nov-2022.pdf

5.3.5. Construction and demolition waste diversion

The construction and demolition (C&D) waste processing industry is relatively new and has entered the market as a direct response to rises in landfill charges.

In the Nelson-Tasman Region, C&D facilities are often established on a project-specific basis, where the quantities justify recovery. Several commercial operators sort material on their premises before disposing of the residual waste to their cleanfill facility. In the private and not-for-profit sector, organisations such as Nelson Environment Centre, Habitat for Humanity and Weka Peckers, are becoming increasingly active in diverting C&D waste. Change is being led from within the sector by the Nelson Construction and Environment Alliance which is an industry-led initiative which has received grant support from the Councils.

With grant support from the Government's Waste Minimisation Fund, the Councils are in the process of establishing sorting areas at the Nelson WRC and Richmond RRC to enable diversion of building waste and items such as plasterboard offcuts, timber, pavers, insulation, metal, and household fittings.

5.3.6. Product stewardship schemes

Product stewardship schemes in NZ are generally voluntary and industry-led, with producers, distributors, retailers, and consumers taking on the cost of recovering and reusing/recycling the products they make, sell or use.

The Waste Minimisation Act 2008 provides the ability for schemes to obtain accreditation from the government, as well as enabling the government to declare a product a 'priority' in which case a product must become part of a regulated scheme. In 2020, the Minister for the Environment used the Act's powers to declare the following six priority products:

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

Once a product has been declared a 'priority product' these products must become part of a mandatory, regulated scheme which all producers must contribute to the funding of. Schemes for these priority products are all at various stages of design and implementation, with the first scheme, for the recovery of tyres, commencing 1 March 2024[30].

There are approximately 11 voluntary, industry-led product stewardship schemes that have received accreditation from the Government to date (Appendix K). Examples of accredited schemes that operate within the Nelson-Tasman Region include:

- **Agrecovery** – provides NZ farmers and growers with programmes to return plastic chemical containers for recycling, drum recovery and collection of unwanted and/or expired agriculture

[30] Turning Waste into Opportunity – Tyrewise, Aotearoa New Zealand

chemicals. Some chemicals are free for disposal and collection, others are subsidised. Two of the RRCs in Tasman enable collections of these containers.

- **Plasback** - collection and recycling of agricultural plastics such as bale and silage wrap, and crop bags. Rural properties pay for the collection service using supplied bin liners.
- **Soft Plastic Recycling Programme** – recently reinstated within the Nelson-Tasman region by the NZ Packaging Forum, this programme provides drop-off bins at participating retailers (some supermarkets and homeware stores) for post-consumer soft-plastic packaging. Soft plastics can also be sent to the scheme manager in pre-paid courier bags available from NZ Post shops.
- **Resene Paintwise** – surplus paint and containers are collected at selected stores and at resource recovery centres.
- **TechCollectNZ** - free drop off at participating retail stores for personal and small business electronics to be recycled by the electronics industry. There is one drop off point at Noel Leemings in Nelson.
- **Recovery Oil Saves the Environment (ROSE)** – used engine oil recovery programme enables users, oil producers and regulators to responsibly collect, transport, use and dispose of used engine oil.
- **Seatsmart –** councils provide subsidies to enable the drop-off of used child car seats at participating businesses for recycling. There is one location in the region at Baby on the Move in Nelson. 5R operates a voluntary product stewardship scheme for flat glass and windscreens.
- **Cool-Safe** - recovery of refrigerant gases from industrial, commercial, and domestic equipment.

There are numerous other schemes that have been set up on a voluntary, industry-led basis which are not accredited by the Ministry for the Environment. These require people to drop-off clean, separated items to designated locations. Examples in Nelson Tasman for where certain waste materials[31] can be taken, include:

- expanded polystyrene at Mitre10 and local manufacturer
- batteries at Bunnings stores and other council-funded locations
- liquid paper cartons (Tetrapak) and other consumer packaging at locations managed by GrassRoots Recycling
- aluminium lids by Lions in partnership with Resene
- hard-to-recycle items, such as toothpaste tubes or vapes, via various business or community locations which are enabled through international organisation, Terracycle.

Such small-scale take-back initiatives in the Nelson-Tasman Region typically rely on local voluntary efforts and/or business sponsorship, in the absence of nationally managed product stewardship schemes. While not necessarily self-sustaining, such voluntary initiatives contribute to

[31] Grassroots Recycling | Nelson | Facebook; Airpop - engineered air; Keeping batteries out of landfill - Nelson City Council; Resene Supports Kan Tabs | Hope in a can; https://www.terracycle.com/; Vape Recycling NZ | VapeCycle

the overall waste diversion network that exists across the Region and indicate where efforts are being made by industry and the community.

5.3.7. Other diversion services

The recovery and redistributed of surplus food is enabled within the region through various local initiatives. For example, NEC started a service called Kai Rescue in 2017. Another community-led food rescue programme called Kai with Love was also operating in the region but has recently closed. Foodprint, which enables eateries to list their surplus food for reduced prices, is a digital initiative that links eateries with customers, and received funding in 2022 through the Council's grant system.

5.4. Waste management services.

5.4.1. Hazardous waste services

Hazardous waste can comprise liquid and/or solid wastes that, in general, require further treatment before conventional disposal methods are used. The most common types of hazardous waste include:

- organic liquids, such as those removed from septic tanks, industrial cesspits and portaloos
- solvents and oils, particularly those containing volatile organic compounds
- wastes containing hydrocarbons, such as inks, glues and greases
- refrigerant gases which are not toxic for humans but can have high global warming and ozone depleting potentials
- contaminated soils
- chemical wastes, such as pesticides and agricultural chemicals
- medical and quarantine wastes
- wastes containing heavy metals, such as timber preservatives; and
- batteries which present risk of combustion if damaged, e.g. lithium ion.

Some hazardous wastes are accepted at the Councils' RRCs and WRC. Several commercial hazardous waste operators provide services in the Region to handle hazardous wastes that are generated by commercial operations or for waste not accepted at the Councils' facilities. These operators include: JBL Environmental Ltd, ERS, Bens Oil, EnviroNZ, and Nelson Marlborough Waste.

A trial of a new Council service to provide drop off points for people to dispose of batteries free-of-charge is into its second year. This service is delivered through the *'Don't Bin Batteries'* campaign and funded by the NTRLBU. This is in response to the growing risk of fires caused by batteries (in waste collection trucks, at transfer stations and at landfill sites) due to the significant increase in ownership of personal electronic devices that contain lithium and rechargeable batteries.

Refrigerant gases (or Fluoro (F)-gases) are contained in many and varied appliances. When leaked into the atmosphere after an appliance is discarded, these gases have a high Global Warming Potential (GWP), and some can also damage the ozone layer. This is one of the reasons why these gases were named a 'priority product' by the government in 2020.

To avoid the release of these greenhouse gases, end-of-life appliances such as fridges, freezers, and heat-pump air conditioning units are separated for 'degassing'. Cool-Safe[32] is a voluntary product stewardship scheme which offers incentives for refrigerant gases to be recovered from industrial, commercial, and domestic equipment, as well as a free-of-charge national courier pick up service, and ten physical collection sites in the country. The service is only accessible to those who have undergone training to safely decommission equipment and have the knowledge and equipment to handle refrigerants, not the members of the public. Cool-Safe's refrigerant recovery programme is utilised by NGO's and councils who are appropriately trained to recover and receive the rewards. There is one facility in the Nelson-Tasman Region listed as a Cool-Safe facility (Patton Ltd, Pascoe Street, Tāhunanui).

5.4.2. Refuse collection and disposal services.

Tasman District Council provides a user-pays weekly refuse collection service for eligible properties via pre-paid Council rubbish bags which get collected by Tasman District Council's kerbside recycling contractor (Smart Environmental Ltd) which is also supported by a targeted rate. Nelson City Council relies entirely on commercial waste operators to provide user-pays refuse collection services to households. The geographical difference between the districts is a key factor for this variation in the Councils' approach to refuse collections.

The following private refuse collection services are available for businesses and households in Nelson and across the region, including households in Tasman that choose not to use the Tasman District Council provided rubbish bag collection service:

- kerbside residential and commercial refuse collections (bags or wheelie bins)
- skip bin services for general and garden waste and construction and demolition waste; and
- on-property collection services for larger business needs, general waste and special waste.

A list of known private waste collection services providers is provided in Appendix G.

5.4.3. Rural waste services

There are no specific waste and resource recovery services that the Councils provide to rural properties, other than standard kerbside collection services available to eligible properties in rural areas and the provision of services at the Councils' RRCs and WRC. For example, the Richmond and Mariri RRCs act as drop offs for the Agrecovery scheme which targets farm wastes. Two independent sites in Murchison and Tākaka also take triple rinsed HDPE plastic agrichemical containers from farmers and growers as part of the Agrecovery scheme, and Plasback is an industry-led product stewardship scheme for sileage wrap (refer section 5.2.6).

5.4.4. Waste management services in public places.

Both Councils carry out a range of services to manage wastes in public places, as listed below. Most services are contracted by each Council separately.

- **Litter management** – depending on where the litter occurs it may be managed as part of Waka Kotahi roading services, or contracts managed by different departments within the Council (e.g. parks, roading). The Councils operate in the role of regulator with respect to the

[32] Cool-Safe (coolsafe.org.nz) When released into the atmosphere, certain synthetic refrigerants are 10,000 times more harmful to the climate than CO_2. If a kilo of certain heat-pump refrigerant escapes, that is the same impact as burning 1000 litres of petrol in a car. Only 8% of recoverable synthetic refrigerants are properly recovered according to Cool-Safe.

management of litter and illegal dumping under the Litter Act 1979, and through issuing and enforcing consents for trade waste requirements and other nuisance-related bylaws.

- **Abandoned vehicle recovery and disposal** – the Councils take responsibility for abandoned vehicle recovery and disposal in accordance with their own procedures, which address recovery of costs (where possible) as well as removal notices and owner claim provisions. Section 356 of the LGA 1974 sets out how this process is to be conducted in terms of notification requirements and recovery of vehicles.
- **Town centre cleaning** – mechanical activities such as street sweeping are managed by the Councils via roading contracts.
- **Stream and beach cleaning** – these services can be managed by Council departments or community-led clean ups.
- **Enforcement of illegal dumping** - the Councils' enforcement teams use a combined approach of education, warnings and enforcement (through the issuing of Litter Infringement notices and fines up to $400 using powers under the Litter Act 1979).
- **Waste generated in emergencies** - during emergency events the Councils also support emergency response services to manage disaster-related wastes and to maintain essential waste services.

6. ANALYSIS OF DATA ON WASTE AND DIVERTED MATERIALS

This section presents information on the quantities and composition of wastes generated within the Nelson-Tasman Region and disposed of to landfill. It also provides available information on the types and quantities of materials diverted for other uses.

6.1. Waste disposed to landfill.

Municipal waste[33] from the Nelson-Tasman Region is disposed of at York Valley Landfill (Class 1). Prior to 2017, municipal waste from the region was also disposed at the Eves Valley Landfill.

The operator of the York Valley Landfill regularly measures and reports on all tonnages received, using weighbridge records. In recent years, the NTRLBU has also commissioned 'Solid Waste Analysis Protocol' (SWAP) studies to analyse the types and sources of wastes disposed of at the landfill to develop an understanding of waste composition.

Access to information about waste disposed to other classes of operating landfills in the region is limited, as these sites are not managed by Councils. Information regarding hazardous wastes collected by private operators and treated and/or disposed out of the Region is also not accessible to the Councils, and there is limited information to quantify wastes disposed during disasters. The following sections present data and information, where available, on all these types of disposed wastes.

[33] Municipal waste is total waste disposed to Class 1 landfill less special wastes. Special wastes are materials that requires special handling, pre-treatment or testing prior to disposal. Examples of special waste are asbestos waste, contaminated soil, biosolids from wastewater treatment, treated sawdust and wood processing waste, animal carcasses, offal, industrial wastes. Because quantities of special waste are often highly variable and can be affected by large one-off events, municipal waste generally gives a better measure of waste minimisation activity in the community.

6.1.1 Total waste disposed to Class 1 landfill.

Figure 7 shows the total annual waste to landfill tonnages to York and Eves Valley Landfills since 2009, including both municipal waste and special wastes from within the Nelson-Tasman Region and waste received from the Buller District. The approximate annual quantity of total waste deposited at York Valley Landfill for 2023/2024 was ~74,000 tonnes with the average tonnage since 2017/18 being ~ 77,000 tonnes per annum.

Approximately 2,600 tonnes of waste collected from the Buller District was disposed to York Valley Landfill in 2022/2023. This represents about 3% of the total annual waste to landfill.

Between 6,000 and 12,000 tonnes per year of special waste is disposed to landfill from the Nelson-Tasman Region. At the York Valley Landfill, special wastes are typically soils removed from HAIL[34] sites, asbestos, medical wastes, and sludge from wastewater treatment processes[35]. For this waste assessment, all other waste disposed at the landfill (excluding special wastes) is classified as municipal waste.

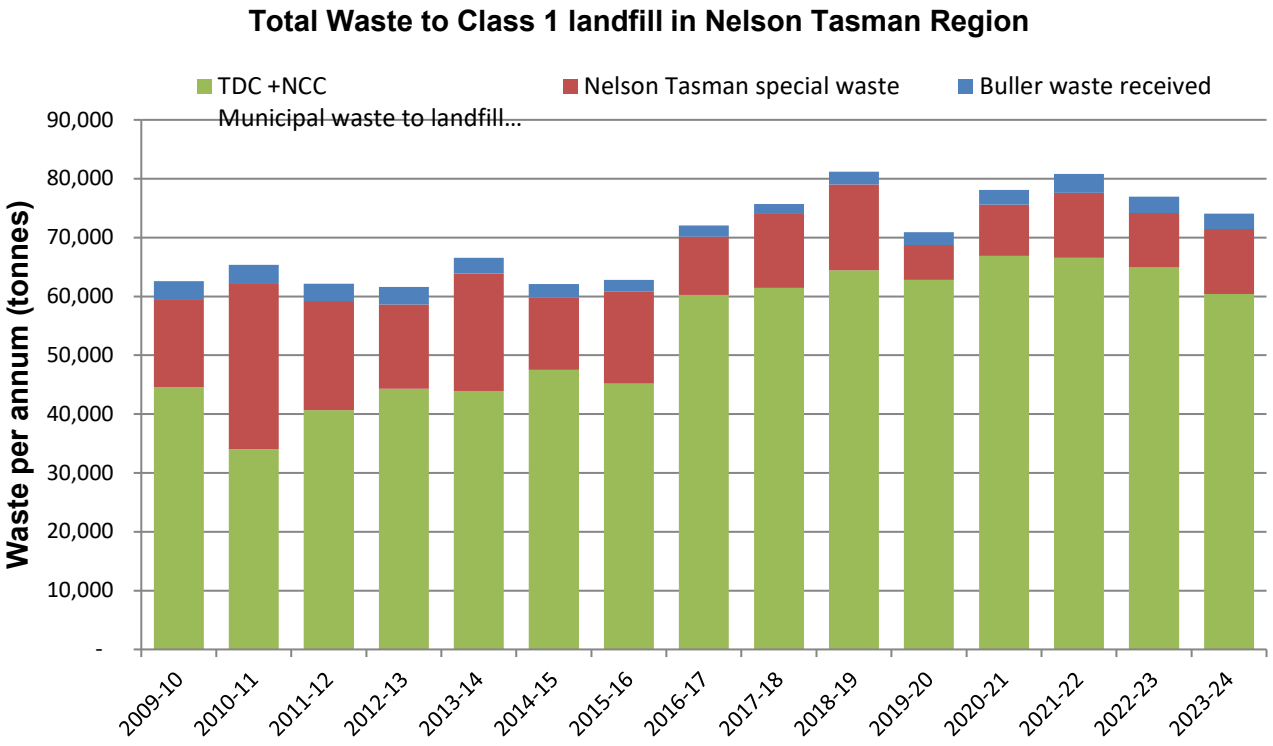

Figure 7: Total waste to York Valley Landfill

The total waste tonnage disposed to landfill remained reasonably static between 2009 and 2016, and then increased significantly between 2017 and 2019. Increases in waste quantities are driven, in part, by population increases in the Nelson-Tasman Region during these years, and related construction and economic activity. Waste quantities reduced in 2019/2020, coinciding with COVID-19 restrictions, and have subsequently increased to pre-COVID levels.

[34] Hazardous Activities and Industries List (HAIL) - Nelson HAIL Sites - Nelson City Council; HAIL Register | Tasman District Council

[35] Most biosolids produced in Nelson-Tasman get applied to land at Moturoa - Rabbit Island. Some biosolids from the region's smaller wastewater treatment plants are disposed to York Valley landfill periodically. Refer to section 6.7.3.

Other local factors that are expected to have influence the quantity of waste disposed to landfill in recent years include:

- waste generated from flood and fire events,
- population fluctuations due to tourism and seasonal work
- implementation of new waste diversion services, such as the introduction of improved kerbside recycling services in 2015 and other commercial and community waste diversion initiatives.

6.1.2 Waste disposal per capita.

To obtain a better understanding of the quantity of waste disposed of from within the Nelson-Tasman Region and how it compares nationally, a per capita figure is typically used[36]. Much of the waste disposed to landfill comes from commercial sources, so the per capita figure is not directly equivalent to the amount of waste everyone throws away each year, rather an indicator of total waste generated across the region on a per person basis.

Figure 8 shows the total waste per capita for the Nelson-Tasman Region compared with the national per capita rate as reported by the Ministry for the Environment. The figures in the graph include municipal waste and special wastes from the Nelson-Tasman Region but excludes waste from Buller District.

In recent years, the Nelson-Tasman total waste to a class 1 landfill per capita rate has tracked closely to the national municipal waste per capita rate however this includes special waste and contaminated soils. The Nelson-Tasman total municipal waste per capita rate has remained well below the national rate with 525 kg per person recorded for the region for the 2023/2024 year compared with a national per capita figure of 608 kg per person[37].

Municipal waste per capita rates in regions around NZ can vary widely, with reported regional rates ranging between approximately 300 kg to 1000 kg per capita, based on 2017 to 2020 data[38]. Compared to other regions, the Nelson-Tasman municipal waste per capita rate generally falls within the lower end of this range.

[36] This is the total amount of waste disposed to landfill divided by the total number of people normally resident in a defined area.
[37] Waste generation and disposal data | Ministry for the Environment
[38] Waikato and Bay of Plenty region waste and recycling stocktake 2021 (waikatoregion.govt.nz)

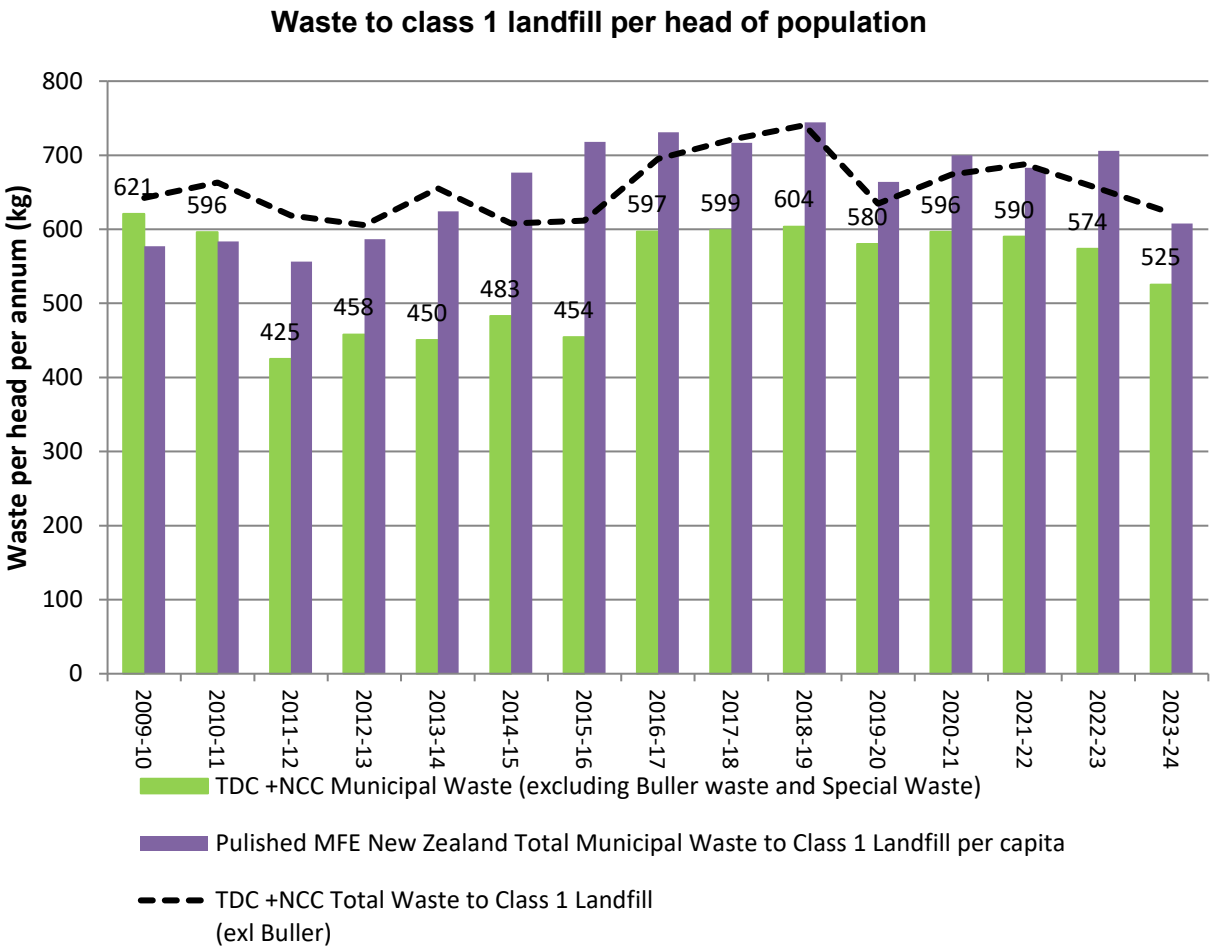

Figure 8: Nelson-Tasman waste to landfill per capita compared to national per capital data (excludes waste from Buller District)

Figure 9 shows the waste per capita from the Nelson-Tasman Region over the past five years, for municipal and special waste categories. It shows that over the period of 2017-2024 municipal waste has remained reasonably stable with a decline over the past two years, while special waste has been more variable over the seven-year period.

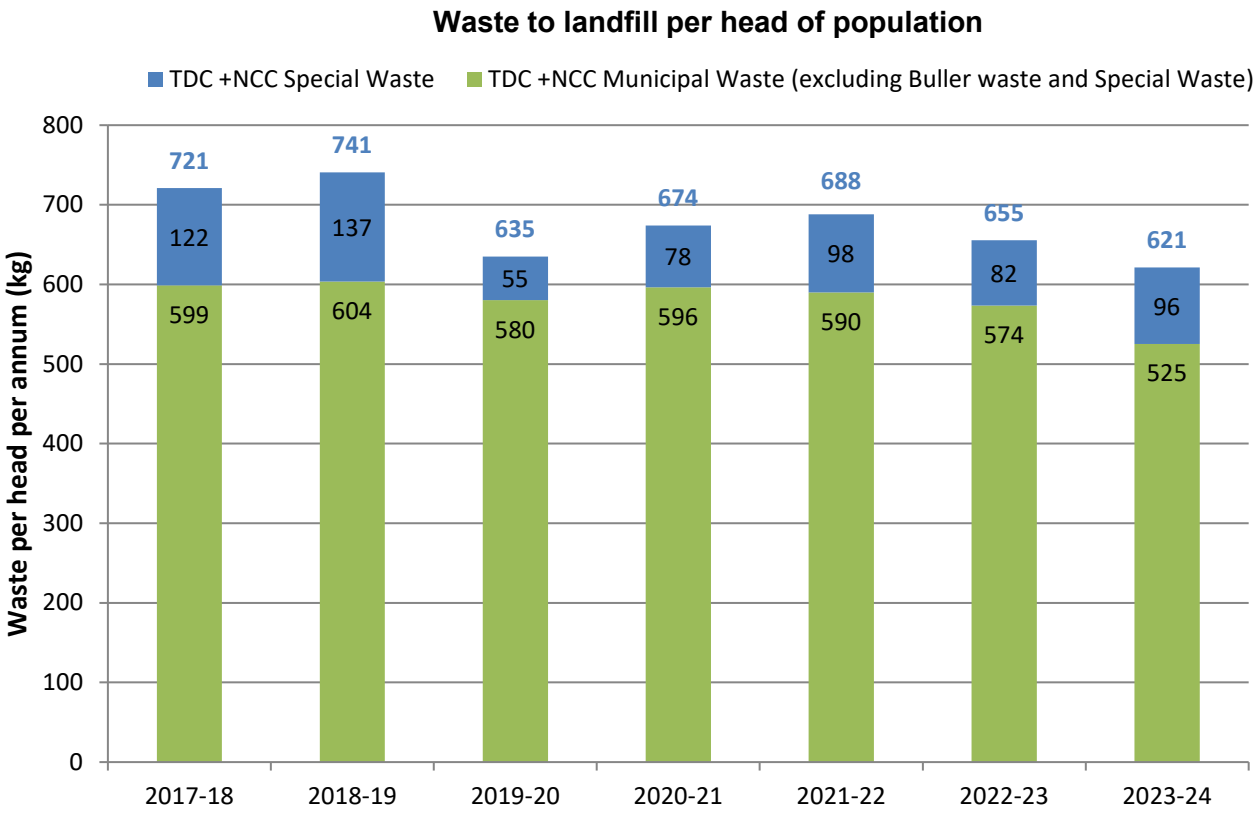

Figure 9: Waste to landfill per capita - municipal and special wastes (excludes waste received from Buller District)

The 2019 Waste Plan has a target to reduce municipal waste to landfill per capita by 10% by 2030, with a reported 2017/2018 baseline of 619 kg per person. The 2017/2018 per capita waste figure in Figure 9 above (595 kg per person) is lower than the figure reported in the 2019 Waste Plan due to updates to the Statistics New Zealand population estimates that were used at the time to calculate the 2017/2018 baseline.

Based on the 599 kg per person figure for 2017/2018, as presented in Figure 9, a 10% reduction target requires waste to reduce to less than 539 kg per person by 2030.

While total waste figures have fluctuated over the six-year period between 2017 and 2023, there has been an approximate 12% per capita reduction in municipal waste since 2018 (i.e. a reduction of 74 kg from 599 kg to 525 kg per capita).

The influence of Covid-19 pandemic on economic activity in the region is likely the most significant factor impacting how waste quantities may have reduced or changed in recent years, over and above other local waste diversion initiatives or shifts in waste minimisation behaviours.

The implementation of an increased and expanded Waste Disposal Levy (as an economic disincentive) over the last three years may have also contributed to this reduction.

6.1.3 York Valley Landfill – activity sources

Landfill weighbridge data can be used to assess the sources or activities that generate the wastes disposed of to landfill. The following five main waste activity categories that are typically used by the Ministry for the Environment to report on Class 1 landfills are:

- Commercial/Industrial
- Residential
- Landscaping
- Construction and Demolition
- Special wastes

Figure 10 provides a breakdown of the estimated activity sources of waste disposed to York Valley Landfill over the 2022/2023 year. This summary is based on landfill weighbridge data and records, alongside spot assessments of wastes transported to landfill by different truck types. There are limitations in the data presented and should be considered indicative only.

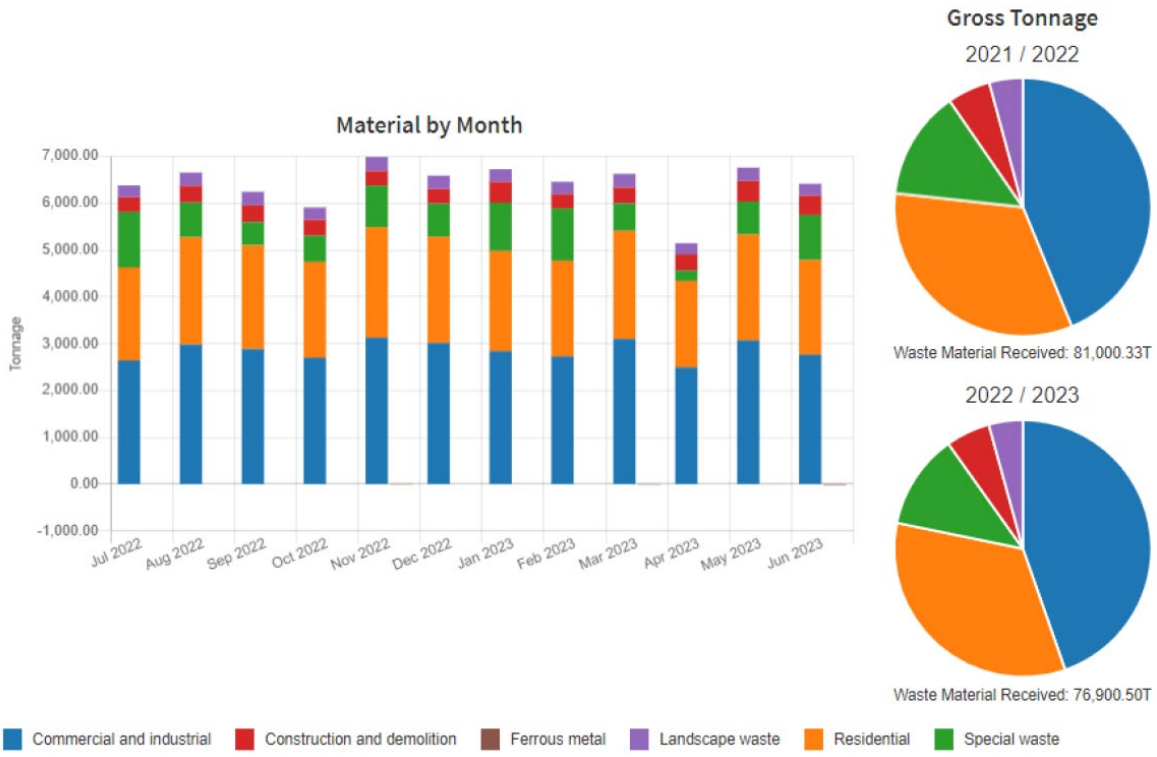

Figure 10: York Valley Landfill 2022-23 waste data[39]

[39] Source: NTRLBU Activity Management Plan 2023

Figure 10 shows that most waste disposed in 2022/2023 was from Commercial & Industrial ("C&I") sources (approximately 45%), followed by approximately 35% residential sources (which includes waste from kerbside collections). The remaining Special wastes comprise approximately 10%, while wastes from landscaping accounts for approximately 5% and waste from Construction and Demolition ("C&D") activities approximately 5%. These proportions remained reasonably similar over the course of the year and are comparable to the previous year also.

Waste categorised as C&I is likely to contain materials that are generated by C&D and landscaping activities; therefore, the total proportion of C&D and landscaping waste is likely to be a combination of the individual 'C&D' or 'Landscaping' categories, and an unknown proportion of the C&I category.

There is no composition data available for the waste from Buller District, however most is transported from transfer stations in Westport and Reefton, operated by Smart Environmental Ltd. Negligible quantities of waste is received from any other districts.

Access to the York Valley Landfill is for commercial account customers only. From the Nelson City area, around 82% of waste is delivered directly to the York Valley Landfill by commercial customers, with the remaining 18% coming via Nelson City Council's WRC on Pascoe Street. From the Tasman District, approximately 95% of all waste is delivered via the Council's RRCs and just 5% of waste is delivered direct to landfill by commercial customers.

6.1.4 York Valley Landfill – waste composition

Periodically, samples of waste disposed at the landfill are taken and analysed using a SWAP (Solid Waste Analysis Protocol) auditing methodology. The latest studies were undertaken in February 2023 and December 2023 by JBL Environmental Ltd, on behalf of the Landfill Business Unit. The main purpose of the waste analysis is to produce an estimated composition of waste entering York Valley, as a percentage by weight.

Figure 11 presents the results from the studies which are based on a combination of visual and sort-and-weigh information gathered from 352 vehicle loads analysed during a six-day period (Monday to Saturday) in February 2023 and 321 vehicle loads analysed during the same six-day period in December 2023. A total of 1,332 tonnes of waste was disposed to landfill during the survey period in February 2023 and 1,413 tonnes in December 2023.

Samples of waste from different truck loads were also obtained so that physical sort and weigh audits were able to be conducted, alongside the visual inspections of every load disposed during the survey period. The physical samples audited represented approximately 2% of the weekly waste received at the landfill.

Samples of waste were taken from trucks which had transported rubbish from Nelson-Tasman transfer stations, from skip bins, street litter bins, kerbside collections, and from waste loads transported from the Buller District. Loads of special wastes were excluded from the waste analysis.

While the results help to provide a general picture of the likely proportions of materials that comprise total waste disposed to landfill, they are considered indicative only and only a snapshot in time.

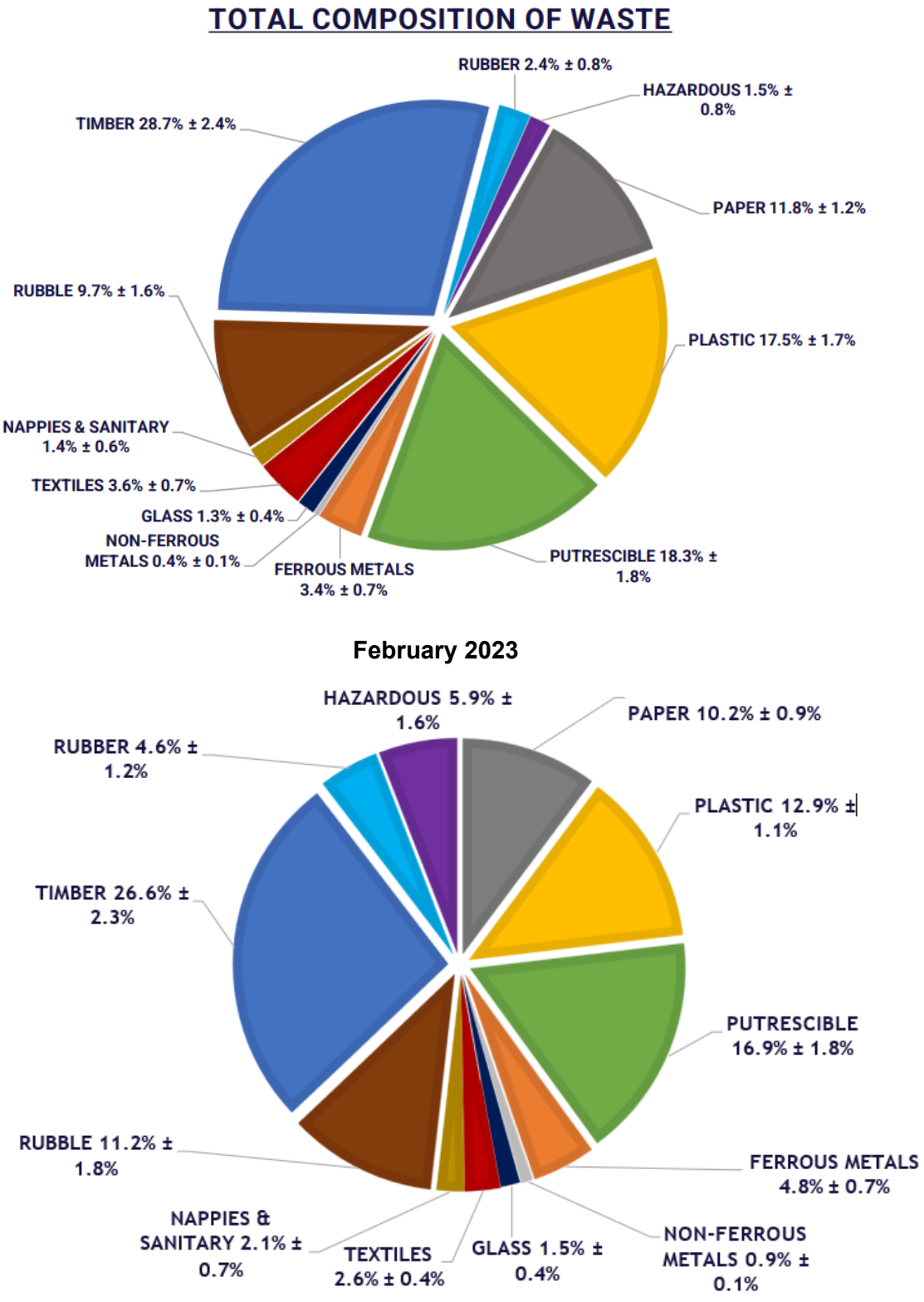

Figure 11: Composition of municipal waste received at York Valley (Feb & Dec 2023)[40]

[40] Source: NTRLBU Composition of Waste Study York Valley Landfill (JBL Environmental, Dec 2023)

Based on these composition figures, approximately half of the materials disposed to landfill have potential to be diverted (including timber, putrescibles (food waste/garden waste), paper, metals, glass, and plastics). JBL Environmental Ltd completed similar waste analysis research in 2020 and 2022 using the same auditing methodology. Results are presented in Table 5.

Results show how the 2023 composition results are generally comparable to previous studies, with the proportions of some materials fluctuating between studies (e.g. putrescible, rubble, timber, rubber, hazardous wastes). Overall, the results indicate proportions of paper and plastics are generally trending upwards while rubble is trending downwards. Of note in the 2023 SWAP study were quantities of polystyrene and cardboard received in the waste loads sampled.

Table 5: Results of waste composition audits at York Valley Landfill - 2020 to 2023

Primary Classification	Date of Survey					
	Jul -20	Nov - 20	May - 22	Feb - 23	Dec - 23	2022/23 average
Paper	7.9	8.3	10.0	11.8	10.2	10.7
Plastic	9.4	12.7	13.0	17.5	12.9	14.5
Putrescibles	20.9	19.7	15.7	18.3	16.9	17.0
Ferrous Metals	4.6	3.3	4.1	3.4	4.8	4.1
Non-Ferrous Metals	0.2	0.5	0.5	0.4	0.9	0.6
Glass	1.0	2.5	1.4	1.3	1.5	1.4
Textiles	3.4	2.9	3.7	3.6	2.6	3.3
Nappies & Sanitary	0.8	2.3	1.4	1.4	2.1	1.6
Rubble	22.7	15.0	8.4	9.7	11.2	9.8
Timber	19.8	29.3	28.7	28.7	26.6	28.0
Rubber	4.5	3.2	6.6	2.4	4.6	4.5
Hazardous	1.9	3.4	6.4	1.5	5.9	4.6

6.1.5 York Valley Landfill – carbon emissions based on waste composition.

Landfills generate bio-genic methane, a potent greenhouse gas, from the breakdown of organic materials within an anaerobic landfill environment. Figure 12 illustrates the proportions of Greenhouse Gas Emissions (GHG) that are attributable to each material type disposed to landfill, based on the 2023 waste composition data and GHG emission factors from Ministry for the Environment' guidance[41].

Only those materials that are derived from 'organic' materials are shown to have a global warming potential impact, as it is assumed other inorganic waste materials do not degrade in the landfill environment, and therefore have zero emissions factors and do not contribute to the production of landfill greenhouse gases.

While the average audit results indicate paper waste represents approximately 11% of total waste disposed to the landfill by weight, the proportion of total GHG emissions that paper produces within the landfill environment is estimated to be 32%. The other two main GHG contributing materials, 'Timber' and 'Putrescible' wastes, each make up 31% of total GHG emission contributions, with the

[41] Source Measuring emissions: A guide for organisations: 2022 detailed guide | Ministry for the Environment

audit results indicating these materials represent approximately 28% and 18% of total waste disposed by weight, respectively.

The potential impact GHG emissions have from disposing organic wastes in the landfill is reduced due to the landfill gas capture system installed at the site and the conversion of the bio-genic methane gas to CO_2 through flaring. A proportion of the gas captured is utilised as an energy source. Not all landfill gas is able to be captured from gas collection systems however, with some methane inevitably released into the atmosphere through fugitive gas emissions.

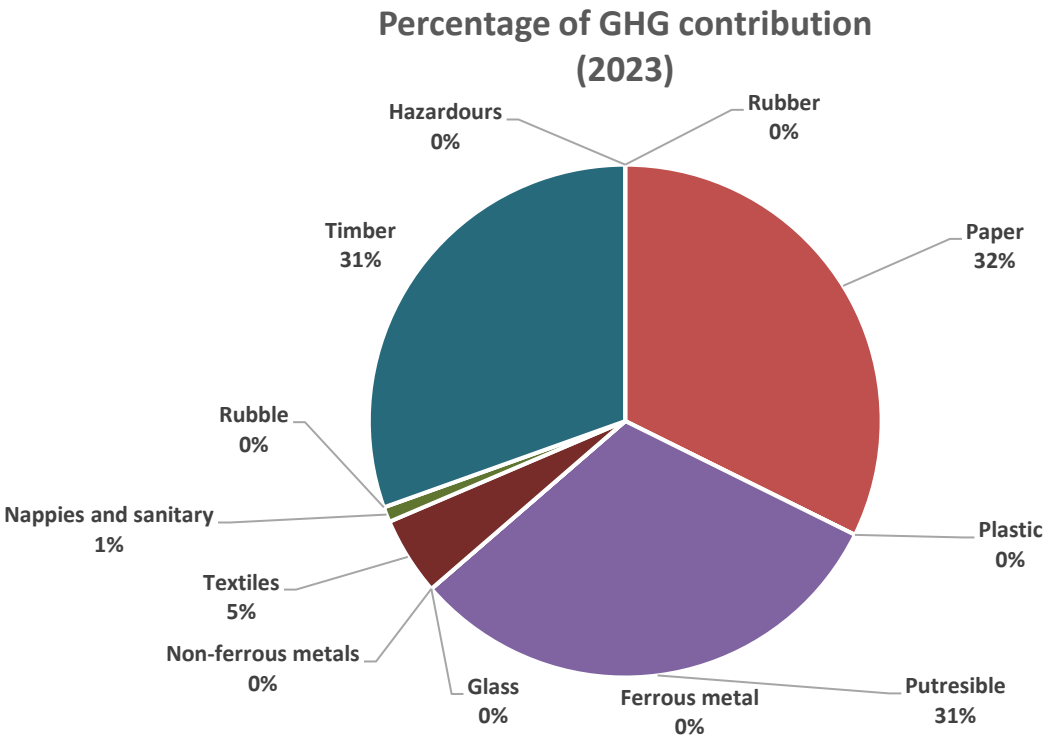

Figure 12: Contribution to greenhouse gas emissions, based on Feb 2023 composition of total landfill waste.

6.1.6 Household refuse composition – kerbside bags

Figure 13 illustrates the composition results from samples of bagged kerbside refuse collected from households across the Nelson-Tasman Region. This is based on audits undertaken by JBL Environmental Ltd during the same weeks in February 2023 and December 2023 as the landfill audits were completed. It involved sorting and weighing a sample of refuse bags taken from 15 kerbside trucks.

Average composition of total kerbside rubbish generation from households is difficult to calculate as services are provided by the private sector in Nelson and Tasman, and not all households put out bags or bins each week. Refuse is also collected from the kerbside from an unknown number of businesses and schools. Regardless, the results from the February and December 2023 audits of kerbside bagged waste illustrate:

- Putrescible wastes (i.e. food scraps, garden wastes) make up the highest proportion of kerbside bagged refuse, 37% - 40% by weight. Food waste represents approximately 30% by weight.

- Approximately 20% - 27% is made up of potentially recyclable materials (including paper/cardboard, recyclable plastic, glass, and metals). A proportion of which could be diverted via councils' existing kerbside recycling services.
- Materials classified as 'Plastics non-recyclable', 'textiles' and 'nappies and sanitary' wastes, which have fewer diversion options, represent over a third of total kerbside waste (34%).

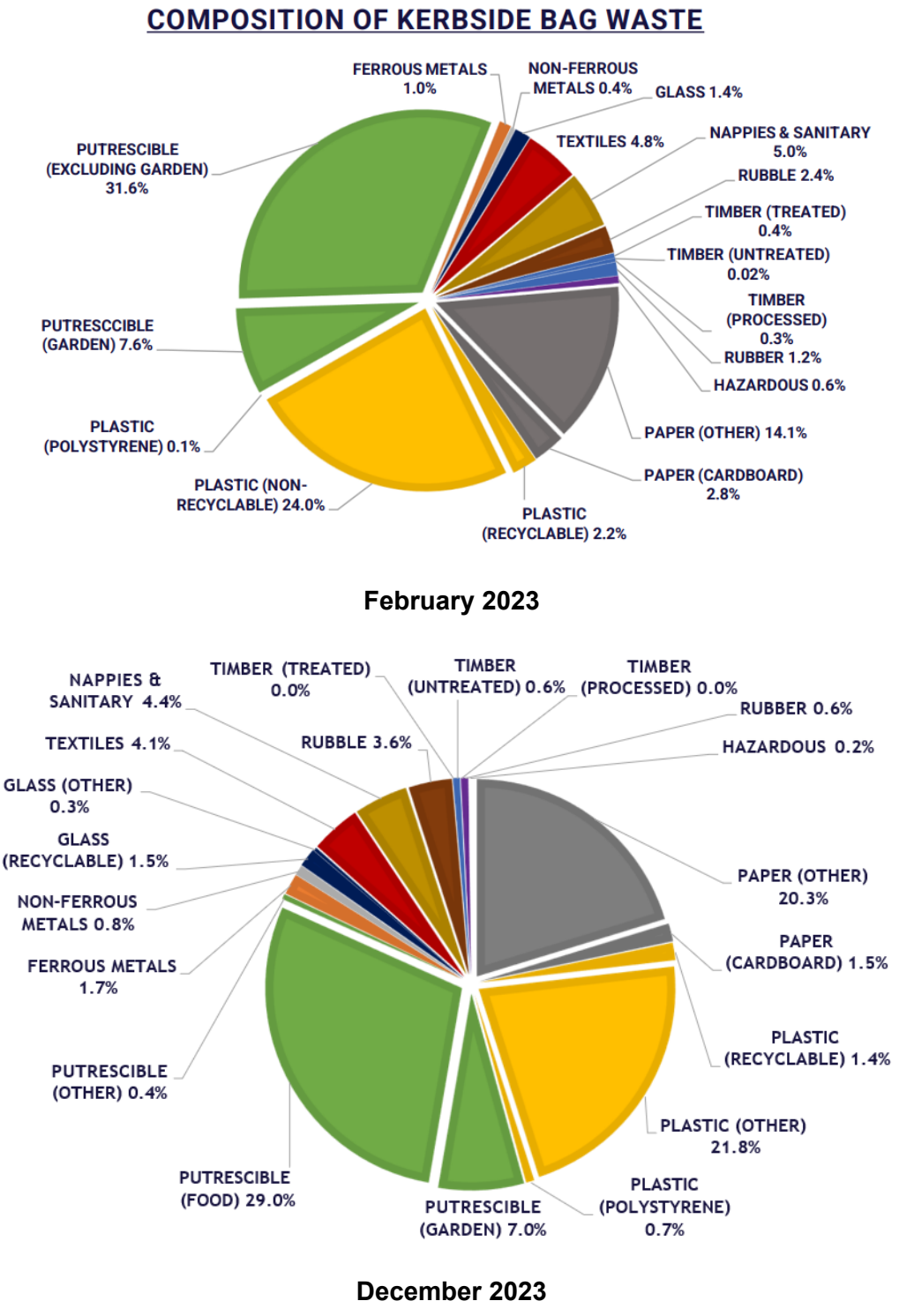

Figure 13: Composition of domestic kerbside bagged waste from audit results (Feb and Dec 2023)

6.1.7 Household diversion rates

In 2023, the previous Government proposed minimum performance standards for kerbside collection services for local authorities. For example, a 2030 target was proposed for 50% of household kerbside waste to be divert via kerbside recycling and food scraps/garden waste collections. Based on the 2023 composition results for kerbside bagged refuse, compostable or recyclable materials make up over 60% by weight. If most of these materials were able to be diverted, then a 50% reduction in household waste would be possible.

The Councils cannot determine the current diversion rate of household waste in the Nelson-Tasman Region however, as the total quantity disposed to landfill from households' kerbside collections is made up of a small proportion of Tasman District Council's kerbside user-pays bags and the larger share of waste collected in wheelie bins and bags by private operators across the Tasman and Nelson areas. Privately collected waste quantities are not reported to the Councils primarily due to commercial sensitivities as well as the lack of a regulatory framework to require waste data reporting. Data on household garden waste diverted by private garden waste collection services are also not available at a household level.

To help determine and track overall waste diversion rates for household kerbside waste, regulations may be required (either via a local bylaw or national licensing system) to require private contractors (and the landfill operation) to monitor and report specifically on quantities of household kerbside refuse and garden waste collected.

6.2. Materials disposed to managed fills and cleanfills.

Under new landfill reporting regulations introduced by the Government in 2020, operators of Class 2 to 5 landfills are required to report waste quantities to the Ministry for the Environment.

Information obtained in 2023 from an Official Information Act request to the Ministry for the Environment reported a total of approximately 77,000 tonnes of material was disposed to all registered managed and cleanfill sites in the Nelson-Tasman Region for the 2022/2023 financial year. The types of materials disposed at these sites is largely unknown given these sites are not monitored or regulated by the Councils, although it would be expected that most of the material received would be soil, spoil and hardfill materials.

The composition of waste disposed to York Valley Landfill indicates large quantities of soils are being disposed. As described in the NZWS, the prevailing approach to managing potential soil contamination during land development projects is 'dig and dump', which means considerable volumes of soil from registered HAIL sites are treated as waste and transported to landfills – either Class 1 or possibly other fill sites.

In late 2023, discussions between Council staff and representatives from the local civil contracting industry indicated that disposal of soil and other excavated material was becoming a significant issue, with a lack of consented disposal facilities, and tightening controls on disposal of material to land. Materials with low levels of contamination, previously regarded as "cleanfill" are no longer able to be disposed as a permitted activity as where contamination is above regional background contaminant levels. There is in the order of 100,000 tonnes of this material produced annually although this fluctuates between years depending on land development activities[42].

[42] Based on discussions with civil construction industry

6.3. Hazardous waste treatment and disposal

Before disposing of hazardous wastes, a range of treatment processes can be used. For some low hazard wastes, there may be diversion and reuse opportunities instead of final disposal (e.g. waste engine oil can be distilled and used as a fuel; paint can be reused; or some batteries and e-waste can be recycled).

Due to a lack of mandatory hazardous waste tracking requirements for the wider sector, the Councils are unable to accurately quantify and report on the tonnages of hazardous waste handled within the Region. Information is available regarding items handled at the Council's facilities (e.g. lead acid batteries, paint, used-oil, batteries), as well as an estimated proportion of hazardous wastes disposed to York Valley landfill, based on an analysis of landfill weighbridge data and SWAP composition studies.

Results from the five SWAP studies conducted at York Valley Landfill between 2020 and 2023 show the proportion of 'Hazardous Wastes' by weight ranged between 1.5% and 6.4%. Analysis of weighbridge data for York Valley Landfill for the 2022/2023 year indicates approximately 10% of total waste was classified as 'hazardous wastes'.

Based on the average of these proportions and an approximate total tonnage of 78,000 tonnes per year (including special wastes and waste from the Buller District), this would represent approximately 3,000 tonnes of potentially hazardous wastes disposed per year. There is limited information from the SWAP studies or the weighbridge records to determine the types of hazardous wastes this may represent, although records indicate a considerable proportion would be made up of contaminated soils or 'HAIL material'.

6.4. Wastes generated in a crisis.

Natural disasters, significant weather events, biosecurity or public health crises, and human-made hazards and emergencies can all result in substantial quantities of wastes requiring recovery and disposal to landfill. The types and quantity of wastes generated from such events and disasters is impossible to predict accurately – and may range from inert materials (silt, soils, rock) to biological materials (plant or animals) or construction-related materials (timber, rubble, metal), to contaminated or damaged goods.

Recent natural disasters in the Nelson Tasman Region and the rest of New Zealand, and experiences during the Covid-19 pandemic, help contribute to an understanding of impacts certain events can have on waste generation and on our communities. There are various social and cultural considerations to be made relating to the protection of public health when handling disaster wastes, as well as how and when to use sites for temporary (or permanent) storage and for disposal of waste during disaster events.

As has been shown in the Region and across the country, waste management infrastructure (including landfills, cleanfills, resource recovery centres and transfer stations, both public and private assets), alongside waste collection services, play vital roles in disaster situations. Such services and facilities help provide resilience and support for communities – by providing essential waste management services, enabling the collection of waste from vulnerable households, or creating a network through which donated furniture, and other essential items can be received and redistributed.

During Covid-19 restrictions in early 2020, approximately 210 tonnes of kerbside recyclables from the Nelson Tasman region were disposed to landfill over a three-month period. Disposal was

required to maintain public health and to reduce the exposure to risks for essential workers who provide Council collection services and material processing at the MRF.

Significant flooding events in Nelson in August 2022 required managing large quantities of damaged goods and displaced soils from landslides, some of which was contaminated. Despite the significance of the event, the types and quantities of waste materials handled following this event are not well documented. Approximately 90 tonnes of flood-related waste were recorded and disposed at the York Valley Landfill during the weeks following the event, however there are no records to quantify other materials from the event that were recovered, stockpiled on land, or taken to cleanfill.

In February 2023, Cyclone Gabrielle caused significant flooding and damage in Auckland, Gisborne and Hawkes Bay which lead to significant amounts of waste, silt deposition, and flood-related debris. Following this severe weather event, extensive waste recovery and silt management efforts were required in these regions and continue. Over time, information may become available regarding the quantities and types of waste generated during this event.

6.5. Illegal dumping, litter and street cleaning

Wastes that are illegally dumped or littered on public land and that are later collected by council services or voluntary efforts are eventually disposed to landfill, as well as wastes regularly collected by councils' contractors via street cleaning services. York Valley Landfill weighbridge records indicate around 360 tonnes of 'street sweepings' were disposed during the past financial year.

Nelson City Council records the number of illegal dumping incidents reported each month (ranging between <5 and up to 20 over the past few years). In 2022/23, 105 illegal dumping incidents were responded to by Tasman District Council, approximately a quarter of these were carcass dumping as shown in Figure 14.

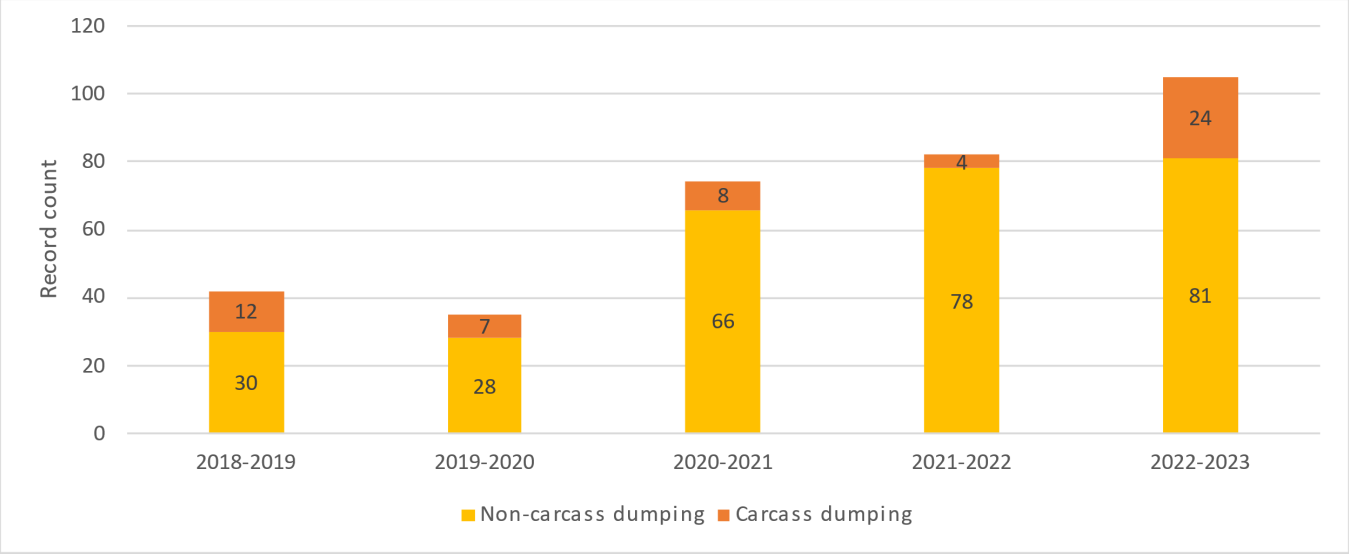

Figure 14: Illegal dumping recorded for the Tasman District

Research alongside analysis of the Council's records show that increases in waste disposal prices do not correlate with an increase in the number of illegal dumping incidents. There remain strong

behavioural aspects associated with littering and illegal dumping, rather than solely being an outcome of higher disposal fees.

6.6. Rural waste management

Disposal of waste on farms and rural land remains a largely unregulated activity and farm waste disposal practices are not monitored by the Councils regularly. It is generally understood that most farms with stock have an offal pit, and anecdotal observations by Council staff suggest that the contents of such pits can also include other general farm waste including treated timber posts, wire, baleage wrap, packaging, farm chemicals, tyres, scrap metal, greenwaste. Burning and storing wastes are also prevalent methods that commonly occur on rural properties.

Poor waste disposal practices can create potential legacy contaminated land issues and burning wastes negatively impacts air quality and may cause health impacts. While the current owner or user of the land may be aware of where and what waste has been disposed and the contents, subsequent landowners or land users may not.

More information is required to better understand waste practices on rural land in the Region and develop appropriate methods to respond. Establishing the necessary national or local regulatory framework to shift practices including compliance, monitoring and enforcement measures, is challenging.

6.7. Diverted materials.

Discarded materials that get recovered from the waste stream are typically referred to as diverted materials. These materials can be diverted via Council-provided kerbside recycling collections, collection services provided by private operators, drop-off services at RRCs, composting facilities, or via a wide range of other resource recovery activities.

. Although section 5 describes these diversion services and resource recovery facilities, limited data means it is not possible to provide a comprehensive analysis of diversion pathways, quantities, and trends. Data gaps are not limited to the Nelson-Tasman Region, and are a national issue, due to a range of factors, including:

- the complexity of the multiple pathways that materials can be diverted to.
- the commercial sensitivities associated with commercial collections and services.
- the lack of reporting regulations for diverted wastes; and
- the limitations with information management systems that record loads, weights, volumes, or units.

The NZWS recognises the need for legislative reform and regulations to enable improved methods to capture and report on waste and resources generated and collected, recovered, or disposed[43], including hazardous wastes. Recent changes to regulations under the Waste Minimistion Act 2008 will require waste facilities to begin capturing data and reporting to the Ministry for the Environment quantities and types of diverted materials from 1 September 2025.

Information presented in this section is limited to data accessed via Council services or facilities, desk-top information, information obtained from private operators, and local knowledge of council

[43] Page 54 of the NZWS; and references to a new tracking system in Cabinet papers - waste-legislation-1-overview-and-overarching-provisions.pdf (environment.govt.nz)

staff. It is also noted that this section does not attempt to accurately or fully quantify materials that do not become waste in the first place - be that surplus food redistributed to people, goods repaired or on-sold/donated via the wide range of online or physical pathways, or waste avoided from the use of reusable products or reusable packaging systems.

6.7.1 Recyclable materials

Recyclable materials[44] are predominately collected via the Councils' kerbside collections from households, and by private operators in the region who provide recycling collection services to their residential or business customers. Additional quantities of recyclable materials are also recovered at Tasman's RRCs and Nelson's WRC and via public place recycling bins. These materials are sorted locally and distributed/sold to end-markets in NZ and overseas.

Material Recovery Facility

Data is available for all recyclable materials received and sorted at the MRF which is managed by Tasman District Council's contractor, Smart Environmental Ltd. Several commercial waste collection companies and other businesses have direct agreements with Smart Environmental Ltd to accept recyclable materials also. It is estimated that approximately 10% of the total tonnage received at the MRF come from commercial customers (i.e. non-Council collections), and approximately 40% of the tonnage received coming from Nelson City Council's kerbside collections, and the remaining 50% from Tasman District Council's collections.

It is noted that glass is received and handled at the Richmond RRC site by Smart Environmental Ltd but is not sorted within the MRF.

Figure 15 shows relatively consistent quantities of recyclables have been handled since the Councils' collection services were introduced in 2015 (on average 6,735 tonnes per year, including glass). A decline in total tonnages of recyclable collected has occurred since a peak in 2017 with quantities ranging from 7,438 tonnes in 2017/2018 to 6,303 tonnes in 2023/24. Contamination of recyclables received through kerbside collections is generally low (compared to rates reported in other regions), in the order of 14%.

[44] For the purpose of this assessment, recyclable materials are meaning post-consumer, single-use packaging made from cardboard, paper, glass, aluminium, steel, or plastics (#1, #2 and #5), and paper used for information purposes (office paper, magazines, newspapers etc). Soft plastics that are collected by private operators from commercial customers is also considered a recyclable material for this section. Other materials that are recovered via drop-off facilities or through other recycling or product stewardship scheme initiatives are discussed in subsequent sections.

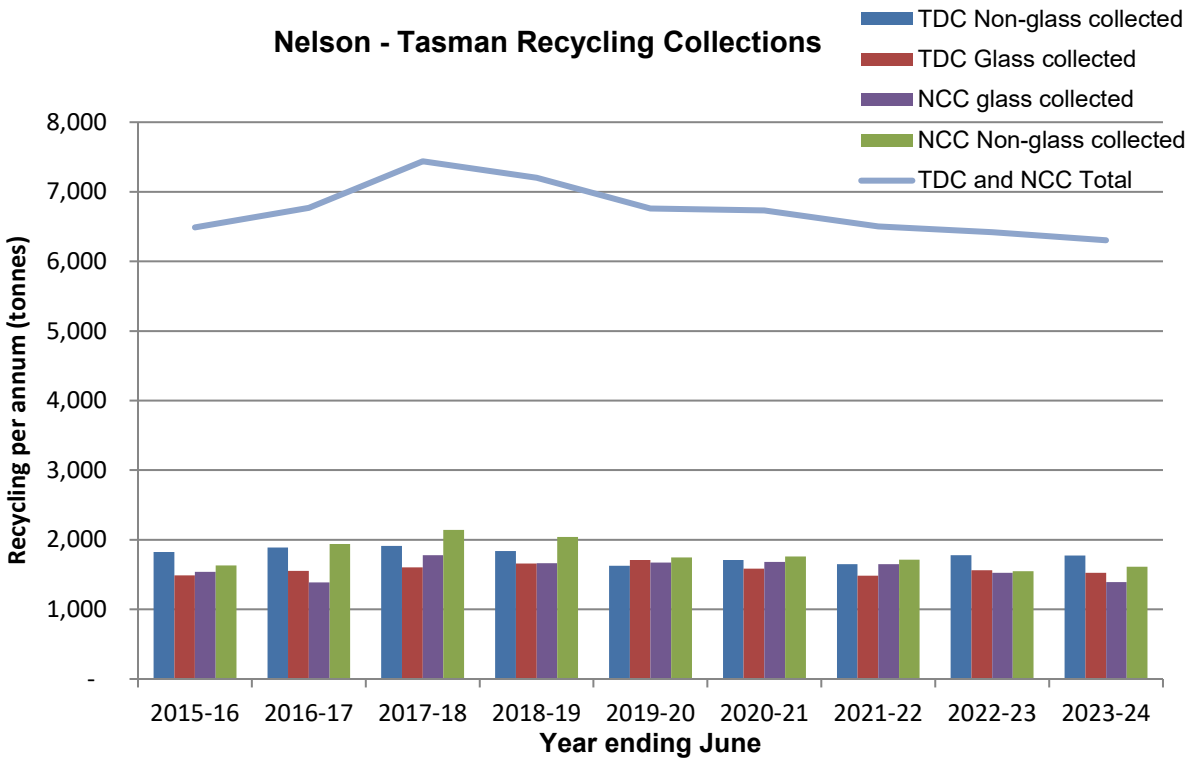

Figure 15: Total Tonnages of kerbside recyclables 2009 to 2023 from the Nelson-Tasman Region

The proportions of the different recyclable materials managed by the MRF operator, by weight for the 2022/2023 financial year, are presented in Figure 16. Glass and paper/cardboard materials make up the largest proportions of the total weight (53% and 36% respectively), followed by plastics (7%) and metals (4%).

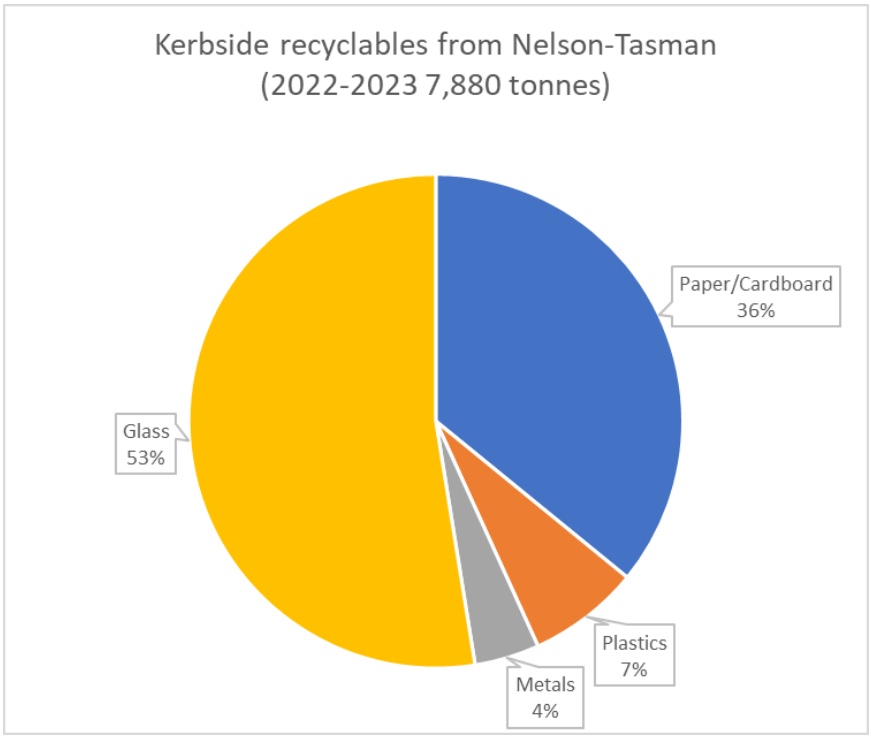

Figure 16: Composition of recyclables handled by council's contractor (2022-2023)

Commercial recyclables

Private waste operators offer collection services to customers in the region for source-separated recyclable materials, including cardboard, office paper, soft plastics, metals and glass. These operators seek end-markets for the materials they collect and are often the same markets as those the Richmond MRF operation rely on.

Given that commercial recyclables are collected by private operators and are not all handled through the Richmond MRF, the Councils have limited direct access to information to quantify commercial recyclables. Information provided by Oji Fibre for the purpose of this waste assessment aggregates annual tonnages of cardboard, mixed fibre and soft plastics they have diverted from landfill across the region over the last six years (Figure 17). Some of the material reported by Oji Fibre is derived from the Richmond MRF.

The total tonnage of these materials has ranged between 3,700 and 5,350 tonnes over the last six years. The quantity of cardboard has reduced since Covid-19 restrictions, soft plastic quantities has remained relatively steady since 2018, and mixed fibre has fluctuated since 2019.

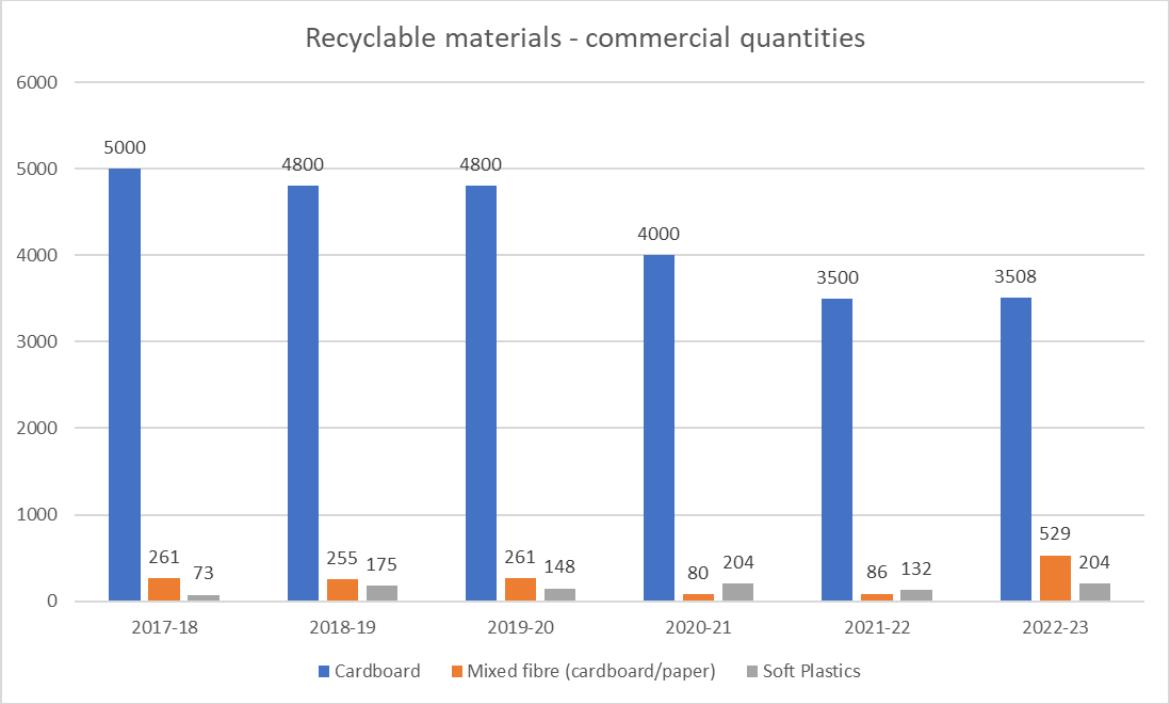

Figure 17: Commercial quantities of recyclable fibre and soft plastics – 2017 to 2023 (tonnes)

6.7.2 Diversion of wastes at council facilities

The estimated quantity of materials diverted from landfill at Tasman's RRCs, and Nelson's WRC is shown in Table 6 below. The data presented is from the 2022/2023 year only.

Diverted waste materials are predominately garden wastes, scrap metal, hardfill, as well as recyclable packaging. Small quantities of hazardous wastes are also diverted from landfill at these facilities (e.g. lead acid batteries, paint, used-oil, batteries), although some of these wastes will ultimately be disposed to landfill following treatment.

It is noted that while tyres may be separated at some of the Councils' facilities, there is no recycling option for tyres in the region and these get shredded before being disposed to landfill. The quantity of tyres is therefore not included in the figures in Table 6. Cutting tyres prior to disposal reduces their ability to harbour water and vectors and reduces the potential for tyre materials to 'float' to the surface when disposed to landfill. As mentioned earlier, a nationwide product stewardship scheme for tyres was introduced by MfE1 March 2024.

Table 6: Resource recovery at WRC and RRC sites

	2022-2023		
Facility	**Total tonnes**	**Diverted tonnes**	**Per cent diversion**
Tasman RRCs (total across five sites)	38,169	8,711	19%
Nelson WRC	6,167	2,128	34%
Total – Nelson/Tasman	**44,338**	**10,839**	**24%**

6.7.3 Organic wastes

Organic materials (primarily forestry and other wood wastes, garden wastes, food wastes, biosolids) can be diverted through a range of pathways in the Nelson-Tasman Region. Methods include on-site composting or worm-composting, animal feed (e.g. pigs, poultry), domestic wastewater or trade waste systems, biofuel, in-situ and land-application, commercial composting operations, or utilised within community or home gardens.

A 2021 study that 'mapped' organic wastes in the Top of the South was commissioned in by the Marlborough Research Centre and supported by Plant and Food Research[45]. The research estimated 290,000 tonnes of organic waste is generated in the Nelson-Tasman Region per year including forestry wastes. It is acknowledged however that information used to quantify wastes came from interviews rather than from quantitative records, and subsequent analysis shows the figures do not fully correlate with landfill weighbridge records.

Forestry and wood wastes

Most organic wastes from the region's large forestry blocks are managed in-situ – thus avoiding the need to handle and manage these wastes offsite and allowing for the gradual breakdown of materials back into the land. Recent storm events around the country however are highlighting the significant issue and risks that such in-situ forestry wastes, or 'slash', can present to downstream catchments and communities. The Government recently completed an inquiry into woody-debris and land use, with particular focus on the east coast of the North Island and the impact of storm damage caused by woody debris (including forestry slash) and sediment on communities, livestock, buildings, and the environment, as well as associated economic drivers and constraints[46].

[45] Food Security Solutions Ltd. 2022. The Top of the South (ToS) organic waste mapping study. A report commissioned by the Marlborough Research Centre (MRC), managed by Plant and Food Research, with funding support from AGMARDT.
[46] Ministerial Inquiry into Land Use | Ministry for the Environment

Arborists in the Nelson-Tasman Region contribute services that help to manage wood waste on private and public land, such as mulching felled trees onsite for use in-situ or transporting materials to firewood suppliers and commercial composting facilities.

It is understood that timber by-products and sawdust produced by timber processing facilities in the region are also used as a 'biofuel' in local boilers and kilns to generate heat and energy. A report by Tonkin and Taylor (2020) states the major biofuel users in the region are Nelson Pine Industries (Richmond), Carter Holt Harvey (Eves Valley), Eurocell Wood Products (Tāhunanui) and South Pine (Annesbrook)[47]. The report estimated approximately 24,000 tonnes per year of biofuel is used in Nelson, with 'more in the Tasman District', based on information from a 2013 study[48].

Diversion of garden wastes to commercial composting

Research by Eunomia (2023)[49] undertaken on behalf of the Councils, estimates a total of 10,000 tonnes of garden waste (including some forestry, plasterboard, and horticultural wastes) is currently collected and processed by the two main commercial composting operations in the region. Some of this material will have been received at Nelson's WRC and Tasman's RRCs (approximately 2,600 tonnes of garden waste per annum).

Surplus food redistribution and diversion of household food scraps

As reflected in research by the Chief Science Advisor to the Prime Minister[50], avoiding food waste through all stages of the value chain (from production through to disposal) is a critical action to help reduce carbon emissions and reduce landfill disposal, while also contributing to positive economic, cultural and social outcomes. There is limited information to quantify the amount of food waste avoided in the Nelson-Tasman Region, however two local initiatives provide some indications of the impact surplus food redistribution services are having:

- **Kai Rescue** (operated by Nelson Environment Centre) redistributed 174 tonnes of surplus/rescued food in 2022 and has been operating since 2017. This food would otherwise require alternative diversion pathways or disposal.
- **FoodPrint** has been available in the Nelson-Tasman Region since March 2023. As of December 2023, it was currently partnered with 23 eateries with almost 3,000 customers registered as having the app. Since its launch in the Region it has prevented 3,383 kg CO_2-e through food rescue, representing about 1.3 tonnes of surplus food that may have otherwise gone to waste.

There is one food scraps collection service and small-scale composting operation that accepts food scraps in Nelson run by the non-profit organisation Community Compost. It diverts approximately 50 tonnes per year from approximately 100 residential and business customers[51].

[47] Tonkin and Taylor (2020). Investigate Options and Alternatives for the Diversion of Organic Waste. Report prepared by Tasman District Council and Nelson City Council.
[48] Nelson City Renewable Energy Study
[49] Eunomia (2023). Food Waste Collection and Processing Solutions – Research and Initial Options Assessment. Report prepared for Nelson City and Tasman District Councils. September 2023.
[50] Food rescue, food waste (pmcsa.ac.nz)
[51] Compost Collections Nelson — Community Compost

In 2021 Nelson City Council undertook a year-long food waste collection trial with approximately 100 households participating and with the material handled and processed by Community Compost. From this, a broad analysis of data showed:

- approximately 5.2kg of food waste per household collection; and
- 75% participation rate (i.e. 75% of houses participating, putting their bins out 75% of the time).
- if the collection was extended to all 21,650 Nelson households, using these rates it would equate to a diversion of approximately 3,300 tonnes food waste per year (noting the recorded trial participation rates are higher than other food scrap collection services operating in New Zealand).

Biosolids

Stabilised sludge (biosolids) from the regional wastewater treatment facility at Moturoa Bell Island is beneficially applied to forests on Bell and Rabbit Islands. This is an activity managed by the Nelson Regional Sewage Business Unit and uses biosolids produced from the region's two main wastewater treatment plants: Nelson Wastewater Treatment Plant (NWWTP) which is located off Boulder Bank Road, and Bell Island Wastewater Treatment Facility (BIWWTF). The annual quantity of biosolids in the slurry applied to forestry blocks on the Islands equates to approximately 950 tonnes 'dry solids', based on a rate of 2.6 tonnes/day[52].

Both BIWWTF and NWWTP facilities also utilise treatment ponds as part of the wastewater treatment process. From time to time there is a need to remove sludge from these ponds. This sludge is then dried and either managed on-site or disposed of to landfill. Sludge from smaller wastewater treatment plants across the Tasman district (in Motueka, Tapawera, Tākaka, Upper Tākaka, Murchison and Collingwood) is also periodically disposed of to landfill or managed on-site.

In April 2023, resource consents were granted to continue to apply biosolids to forestry on Moturoa Rabbit Island. Further future options to manage biosolids from the facility at Bell Island continue to be investigated also. Regarding the use or disposal of sludges from other wastewater treatment plants in the region, Tasman District Council's Wastewater Activity Management Plan includes work to develop a Sludge Management Strategy and to allow for the removal of sludge from oxidation ponds to "reuse sludge on-site where testing meets acceptable conditions or dispose to landfill if sludge cannot be reused as soil conditioner".

Other organic waste

Other organic wastes generated in the Nelson-Tasman Region may come from the horticultural and agricultural sectors and these may be managed on-farm or on-site, as well as some of these types of wastes utilised as animal stock feed. Utilising food wastes for stock-feed is likely to occur in the region through direct relationships between food waste producers and those farmers of stock that require stock-feed (e.g. pig-farmers). There are no known notable services or facilities in the region diverting such wastes for stock-feed at scale, and quantities are not known.

[52] Tonkin & Taylor (2020). Moturoa/Rabbit Island Biosolids Reconsenting Assessment of Effects on the Environment. Report prepared for Nelson Regional Sewerage Business Unit.

6.7.4 Other recovered materials

Appendix H presents additional information on other materials known to be recovered through various diversion pathways in the Nelson-Tasman Region. Some materials are diverted through council-led facilities (e.g. e-waste) or private collection and drop-off services (e.g. C&D, scrap metal), while others rely primarily on commercial services, voluntary efforts, and/or the existence of industry-led product stewardship schemes (e.g. household soft plastics, agricultural plastics). Most of the recovered materials are exported out of the region for reprocessing (e.g. scrap metal, e-waste, packaging), while some are utilised locally (e.g. building materials, reusable goods/clothing).

Information to quantify the wastes/materials diverted by industry-led product stewardship schemes or commercial and community-led initiatives are not often directly available to the Councils, meaning gaps exist in the Councils' understandings of the impact such schemes may be having in the Region.

6.8. Data gaps

Based on the information analysed and presented in this section, several data gaps are evident:

- There is a lack of information generally on cleanfill sites, types and quantities of wastes received by these facilities, and future capacity.
- There is limited information on the types and quantities of organic waste disposed to landfill, and data on organic materials diverted through home composting, animal feed, or other pathways (e.g. trade waste, energy source, or on-site management) are not measured or accessible.
- There are multiple gaps in understanding the types and quantities of materials diverted from landfill on a regional basis, which relate to the following sources:
  - Not all material diverted through the WRC and RRC sites is accurately recorded.
  - Commercial operators do not report to the Councils on recyclable materials collected or process and data not readily accessible.
  - Product stewardship schemes that operate across the country do not report to the Councils directly, although data are available and can be accessed if required.
  - Negligible information is captured at a regional level of the quantities of materials and goods recovered through reuse or repair pathways.
- There is limited data on the composition and quantity of household rubbish, given the high proportion of household refuse collected by private waste service providers.
- Composition of commercial waste disposed to landfill is largely unknown.
- Weighbridge records of the tonnage of waste disposed to landfill includes some differentiation between the sources and activities from which wastes may come from, but more comprehensive classification would be beneficial.

7. ANALYSIS OF FUTURE DEMAND

This section examines the future demand for waste and resource recovery services and infrastructure in the Nelson Tasman Region. It explores the Councils' service delivery methods and the roles the Councils (and the wider waste sector and community) have in shaping efficient and effective waste minimisation and management to meet the Region's future needs. The discussion culminates in identifying eleven key issues and opportunities for the Councils to address through the review of the 2019 Waste Plan.

7.1. Introduction

Section 51(1) of the WMA requires that a waste assessment contain a forecast of future demands for collection, recycling, recovery, treatment and disposal services for the district. Key factors that will likely influence future demands in the Nelson Tasman region are summarised as follows:

- Responses to climate change – mitigation and adaptation
- Councils' partnership with Iwi
- Government policy and legislation
- Population and demographics
- Economic conditions and activity, including landfill disposal costs.
- Lifestyles and consumer behaviours
- Diverted materials – supply, demand, and required infrastructure and services.
- Innovation and emerging technologies
- Disaster waste management

Over the last five years, the total quantity of waste disposed to the York Valley landfill has fluctuated between 70,000 tonnes to 80,000 tonnes per year, and the annual amount of waste disposed to landfill from the Nelson-Tasman Region has reduced on a per capita basis.

Based on these trends, there is adequate landfill disposal capacity in the medium to long term at York Valley and Eves Valley Landfills to handle projected waste quantities. However, it is both Councils' desire and a government requirement, to minimise the amount of waste generated and that gets disposed to landfill, as well as increase the Region's capacity to recover wastes for reuse, recycling and other reprocessing opportunities.

The following sections discusses the factors that influence future demand and the ways that the Councils may consider responding to these demands through waste planning functions.

7.2. Response to climate change – mitigation and adaptation

Climate change is a global crisis. New Zealand's international commitments to reduce greenhouse gas emissions translate into national policy, and the waste sector is recognised as one specific sector to help contribute towards achieving emission reductions – both from reducing waste in the first place through to reducing impacts from final disposal practices.

As set out in the first New Zealand Emissions Reduction Plan[53], diverting organics wastes from landfill and improving landfill gas extraction, are key practicable actions to reduce emissions associated with wastes. Addressing the global warming potential impact from refrigerant gases, as discussed earlier, is also a significant practicable action.

However, greater opportunities to reduce emissions and regenerate the environment arise from designing out waste early on, and by keeping products and materials (and their embodied carbon) in use for longer. For example, an estimated 45%[54] of global emissions are generated through industry, agriculture and land use in the production of goods and food – before the food is consumed – so when these goods or foods are not consumed and wasted, so too is the embodied carbon and associated impacts generated during the entire value chain - from production to consumption. National research published in 2024 by the Chief Science Advisor to the Prime Minister recognises this important link between emissions generated from food production and consumption as well as from the food waste generated.

The connection between waste and climate change is recognised in the NZWS. The principles of the waste hierarchy and a circular economy that are the cornerstones of the NZWS reflect the key methods to reduce greenhouse gas emissions as well as reduce waste and pollution, circulate products and materials at their highest value, and regenerate nature).

Climate change also introduces challenges to waste management infrastructure and services, necessitating modifications to increase the resilience of the waste system. In common with other regions, the Nelson-Tasman Region has seen increased vulnerability to natural disasters and slow ongoing change, including:

- Local relative sea level rise, which is a challenge due to a large proportion of the Region's infrastructure being located in coastal or low-lying areas.
- Higher intensity rainfall events, with a corresponding increase in extensive flooding and risk of landslips.
- Droughts and high temperatures, with an accompanying higher fire risk.

To address the risks of increased rainfall, temperature fluctuations, and extreme events, landfills and waste systems must implement strategic measures, including the integration of adaptive planning for anticipated change. Planning for waste management for disaster events is a growing priority.

The impact of changes to our climate can also affect closed landfills and contaminated land. The effects can vary depending on the specific characteristics of the site, the nature of the contaminants, the location, and other regional climate variables. Some potential short term or long-term impacts include:

- **Landfill Cover Integrity and Stability**:
  - **Erosion**: Increased rainfall and storm events can lead to erosion of the landfill cover, potentially exposing waste materials.
  - **Landfill slope failures**: Increased saturation from rain can lead to slope instability in landfills, potentially leading to failures.

[53] Source: Emissions reduction plan | Ministry for the Environment
[54] Ellen MacArthur Foundation, Completing the picture: How the circular economy tackles climate change (2019).

- **Leachate Production** – The amount of leachate produced can increase due to rising precipitation levels. Moreover, rising groundwater tables from increased precipitation might come into contact with buried waste, leading to increased leachate production.
- **Gas Production** – Warmer temperatures can accelerate microbial activity, leading to increased rates of methane gas production from organic waste decomposition in landfills. Methane is a potent greenhouse gas.
- **Sea-Level Rise** – For coastal closed-landfills or those near water bodies, rising sea levels can inundate sites, leading to potential leachate release into the environment or washing away of waste materials.
- **Contaminated Land Migration** – Increased flooding can mobilize contaminants from contaminated lands, leading to a broader dispersal and potentially impacting groundwater and surface water.
- **Landfill Caps and Infrastructure** – Extreme weather events, such as heavy rain, flooding, and strong winds, can damage landfill infrastructure, including caps, liners, and gas collection systems.
- **Increased Vulnerability to Wildfires** – In areas with increased drought and higher temperatures, the risk of wildfires may increase. Landfills, especially those with methane emissions, could become ignition sources or be impacted by wildfires.
- **Chemical Reactions** – Changing temperatures and moisture levels can alter the chemical reactions within a landfill or contaminated land, potentially leading to unexpected releases of contaminants.
- **Increased Operational Costs** – Managing the impacts of climate change, such as repairing damaged infrastructure, managing increased leachate, and adapting to new conditions, may increase the operational costs of maintaining closed landfills safely.

What does this mean for waste planning in the Nelson-Tasman Region?

Moving the Councils' waste activities up the waste hierarchy to support a circular economy and reduce greenhouse gas emissions is a key priority to reduce emissions and support national targets. Advocating and facilitating waste avoidance and supporting the upper section of the waste hierarchy (reduce, reuse, repair) are critical actions for the Councils to take to support new behaviours and norms.

Ensuring recycling programmes capture the maximum quantity (and quality) of materials to be remade into products of equal value is also important to help reduce the use of fossil fuels required to extract and manufacture new virgin materials. This in turn supports climate mitigation efforts, as well as support a circular economy.

An increasing emphasis is being placed on prioritising specific wastes according to their global warming potential in landfill rather than by quantity disposed (i.e. 'organic materials' such as food waste, garden waste, timber, paper and cardboard) – which means accelerating actions to divert organic wastes from landfill as well as optimising the capture of landfill gas. The Councils' can therefore continue to give focus on actions that avoid the generation of certain organic wastes in the first place, as well as increase the recovery of these materials for beneficial use. Taking responsibility for capturing synthetic refrigerants from end-of-life appliances is also an important emissions reduction action. The recovery of end-of-life appliances from the public lacks national coordination and is relying on councils and community groups to fill the gap if equipment has not been degassed at the time of replacement or decommissioning. Implementation of a national product stewardship scheme for refrigerants is an important step in this respect. A focus on waste

avoidance, reuse, and recycling can also be built into the evaluation of Councils' procurement decisions.

Adaptation is also a priority for future planning for the Nelson-Tasman Region. It is increasingly important to consider how waste services and infrastructure can adapt and respond to climate change impacts, ensuring the protection of environmental and human health. A proposed Nelson-Tasman Risk Explorer geo-spatial tool will have a role to play in the development of the region's waste services and infrastructure.

Key long-term adaptation measures for the Councils to consider for waste-related services and infrastructure range from strengthening leachate management to adjusting waste processing methodologies. The following are critical areas of focus:

- **Strengthen infrastructure** – Reinforce facilities against extreme weather and potential sea-level rise, as well as upgrade landfill leachate collection and treatment systems.
- **Optimised gas capture** – Adjust landfill gas capture systems for increased gas production due to increasing temperatures.
- **Flexible waste processing** – Adapt sorting and recycling systems for changing waste composition.
- **Adaptive planning** – Integrate adaptive planning approaches to waste management services to anticipate changes in climate and extreme weather events.

The new Joint Waste Plan will also need to consider how advance planning can best mitigate the impacts of climate disasters on waste management, including working with other Councils, FENZ and CDEM. Managing disaster-waste is further discussed later this section.

7.3. Councils' partnership with Iwi

The Councils' relationship with and responsibilities to mana whenua and Iwi / Māori are grounded by te Tiriti o Waitangi, as New Zealand's founding document and guided by law. The 2019 Waste Plan acknowledges the Councils' commitment to Iwi / Māori and references certain principles from te ao Māori that link to waste outcomes. Kaitiakitanga is one of the seven principles of the 2019 Waste Plan that guide the Councils' implementation.

Reviewing the 2019 Waste Plan provides opportunities to acknowledge and give effect to the 2023 Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement between Te Tauihu iwi and the Councils, to support the kaitiaki role of mana whenua, and enable decision-making that reflects te ao Māori perspectives and te Tiriti commitments.

What does this mean for waste planning in the Nelson-Tasman Region?

Enabling Iwi representation on a Joint Waste Management and Minimisation Plan Review Working Party (the Working Party) is an initial way to support the Councils' stated commitments to Iwi / Māori and the principle of kaitiakitanga which was included in the 2019 Waste Plan. The Working Party has responsibility for overseeing the development of a new or amended plan, with powers to make recommendations to the Councils. During this process it will be possible to explore how the 2019 Waste Plan responds to mana whenua aspirations, values and priorities; and where there are opportunities to better align these outcomes in a new Joint Waste Plan. Strengthening relationships and ongoing engagement with Iwi on specific projects and planning decisions can also follow other channels, such as both Councils' respective Iwi Engagement Portals.

7.4. Government policy and legislation

The previous Government made strong commitments to its waste minimisation work programme, such as increasing the waste levy, implementing regulations for plastic phase-outs and waste reporting, consultation on reform of waste legislation, and the release of the revised NZWS in 2023. Under the current Government there remains the potential for national policy to change further while the new Joint Waste Plan is being developed.

As outlined in the NZWS and Cabinet Papers released in 2023[55], the previous government had started the development of new comprehensive legislation on waste to replace the Waste Minimisation Act 2008 and the Litter Act 1979. The new Act was proposed to be called the "Responsibility to Reduce Waste Act", with intentions to create the tools to deliver the NZWS and ensure revenue generated by the Waste Disposal Levy was put to good use.

At the time of writing, further development of new legislation remains uncertain. Based on information in 2023 Cabinet Papers, specific changes under new waste legislation (Waste Minimisation Act 2008 and the Litter Act 1979) may include:

- Reset the purpose, governance arrangements, roles and responsibilities, and strengthen and clarify regulatory and enforcement powers.
- Development of an Action and Investment Plan to support the strategic investment of waste levy funding.
- Require local government to meet national performance standards and align their WMMPs with the NZWS and associated government's Action Investment Plans.
- Introduce a "duty of care" for management of specified wastes, such as food waste, by producers, businesses and waste collectors.
- Waste licensing and tracing systems are proposed under new waste legislation, which is expected to enable councils to have better access to regional waste data.
- More regulated product stewardship schemes are expected under new legislation[56] (in addition to implementing schemes for the six priority products already regulated by government e.g. tyres, refrigerants, e-waste).

In addition to proposed changes to specific waste legislation, there is other Government legislation and policy that interconnect with how waste gets managed and minimised in Aotearoa New Zealand. These include:

- Government's actions to respond to climate change through the second Emissions Reduction Plan and National Adaptation Plan.
- Government's response to Te Waihanga Infrastructure Commission's first 30-year Infrastructure Strategy.
- Outcomes from the Ministry for Business, Innovation and Employment (MBIE) research on a national circular economy and bioeconomy strategy.

[55] Cabinet papers seeking policy decisions on the content of new waste legislation | Ministry for the Environment

[56] "The intention is to establish a pipeline to create more extended producer responsibility schemes, once the new waste legislation has been passed, to provide a streamlined process for creating and running these schemes" page 42, NZ Waste Strategy.

- Proposed mandatory site waste minimisation plans for construction and demolition projects as part of a proposed review of the Building Act as proposed by previous Government.
- Progress with proposed amendments to the Consumer Guarantees Act for the 'right-to-repair'.

Regardless of whether the current Government progresses reform of waste minimisation legislation or other government policy, it is anticipated that both the Government and local authorities will continue to take direct roles in supporting and driving waste minimisation and management efforts due to existing legislative requirements and community needs. Such efforts will continue to influence the demand for waste services and infrastructure and how these get delivered at a national and local level.

What does this mean for waste planning in the Nelson-Tasman Region?

Waste activities the Councils are involved with are expected to reflect community and government priorities – whether these relate to climate change mitigation and adaptation, managing energy demands, or enabling or providing equitable services and infrastructure to meet the needs of our communities. While the Councils have limited influence on national legislative frameworks, the demand for enabling national systems and regulatory tools to support waste minimisation infrastructure and services can be developed through the Councils' own advocacy and collaborative action.

Local authorities are well placed to be strong advocates for changes to central government policy that can support and enable waste minimisation and waste management initiatives to meet local needs[57]. For example, advocacy by local government helped result in the increase and expansion of the waste levy in 2020[58] and the design of a container return scheme for beverage containers[59]. Additional funding raised through increases in the Waste Disposal Levy has since supported local waste minimisation initiatives across the country, implemented by councils and the private sector.

The Councils require flexibility in its planning and long-term commitments to be able to respond to proposed and ongoing legislative changes. Especially as some changes may require significant new work programmes for local government.

There are ongoing operational considerations for the Councils, such as the impacts of a potential Container Return Scheme (if implemented) or other product stewardship schemes, on recycling contracts. Equally proposed performance standards (and requirements under existing regulations) relating to kerbside recycling collection services may mean these services must be provided by the Councils, even if markets for the products recovered are no longer available.

The Councils need to keep a watching brief on work the Ministry for the Environment is undertaking on its first Action and Investment Plan, given the roles the Councils potentially have in enabling regional infrastructure. There may be opportunities for the Councils to develop community-led resource recovery facilities and/or support investment in regional infrastructure that supports the reuse or repair of goods.

Dumping of low value, used goods at charity shops, which may be mixed with household waste or a left outside after hours is an existing issue. Currently the Councils provide subsidies for op shops for their waste disposal costs due to these illegal dumping issues, and support community-led

[57] Local Government Waste Manifesto 2023 (wasteminz.org.nz)
[58] Waste disposal levy expansion | Ministry for the Environment
[59] Container Return Scheme for Aotearoa New Zealand | Ministry for the Environment

clean ups to respond to illegal dumping and litter also. The reform of the Litter Act 1979 and implementation of product stewardships schemes may improve methods to enable effective local enforcement controls for the Councils, as well as incentivise the provision of equitable services and infrastructure to support the recovery of materials.

7.5. Population and demographics

Both Nelson and Tasman are predicting growth (medium projections) over the next 30 years – 20% for Nelson and 31% for Tasman, to 2053 with an average 25% growth for the region. Between 2023 and 2053 the Nelson – Tasman population is projected to grow (medium projections) from 115,000 to 144,120 (Figure 18). Both are also predicting that around one third of the population will be aged 65 and over, over a similar period. The summaries below were provided as supporting information for the Councils' LTPs for the 2024-2034 period [60]

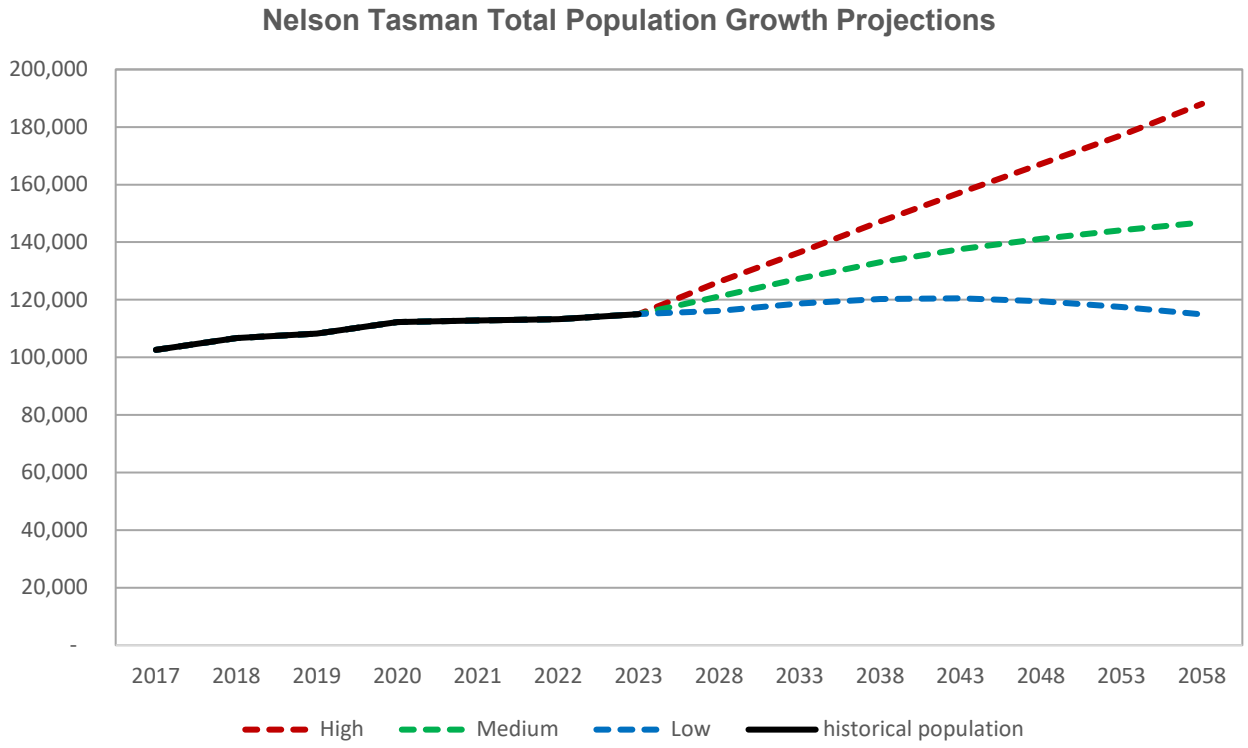

Figure 18 Nelson – Tasman Population Growth projections.

The Nelson City Council medium population projections are for an increase of 4,800 residents over the ten-year period 2023-2033 or a 9% increase. For the longer term, the Nelson projection shows an increase of around 10,885 people to a total population of 66,485 or a 20% increase over the 30 years 2023-2053.

The increase in population projected by Tasman District Council is around 13% for the ten-year period 2023-2033. For the longer term 2023-2053 period, Tasman District Council is projecting an increase of around 31%. The total Tasman population is expected to increase by 7,500 residents between 2023 and 2033, from 59,400 to 66,900 with the rate of growth slowing over time.

[60] DOT Consulting (June 2024) TDC and NCC Population Projections 2018 – 2058 Results

Under the medium scenario, the Motueka, Moutere-Waimea and Richmond Wards are projected to experience the greatest growth in population.

The Nelson-Tasman Region has a slightly lower proportion (16.4%) of young people (0-14) than the country as a whole (18.9%) and a significantly higher proportion (21.5%) of people 65 years and older compared with New Zealand (16.0%).

To meet high growth demand in the region, the Nelson-Tasman Future Development Strategy 2023 sets out capacity for 29,000 extra homes over the next thirty years and additional land assigned for business use also (88ha commercial and 50ha industrial). Currently the population projections are tracking such that the region will need this additional capacity.

What does this mean for waste planning in the Nelson-Tasman Region?

As the population increases and land use changes, there will be an associated increase in the demand for waste and resource recovery services. Waste minimisation and diversion services will continue to be required to limit the pressure on the landfill and other waste handling facilities, and to reduce carbon emissions from waste.

In the longer-term, waste and recycling collection services may need to adapt to provide for changing housing types (medium or high-density and multi-unit-dwellings) and locations (urban and rural). Keeping a focus on supporting the Region's existing communities to both avoid waste and divert and reuse resources will require support and funding – and will require developing targeted resources and engagement programmes that meet the needs of the existing and changing demographics across the Region.

7.6. Economic activity and conditions, including disposal pricing.

Another factor that has a large determinative effect on the volume of waste produced is industrial and commercial activity within the region, as measured by the Gross Domestic Product (GDP) indicator, and related economic conditions. Higher levels of economic activity typically correlate with greater production and consumption of goods, in turn generally leading to higher quantities of waste requiring recovery, reprocessing, or disposal.

The cost of waste disposal also significantly influences the conditions within which waste minimisation and disposal activities occur. The price for Class 1 waste disposal in the Region is governed by the Nelson Tasman Landfill Business Unit and is influenced by the landfill's operational and capital costs, and includes a national Waste Disposal Levy, Emissions Trading Scheme costs, and a Local Disposal Levy. These costs are passed from the business unit to the two Councils. In recent years, the government has applied a national Waste Disposal Levy to other disposal facilities also (refer Table 4), noting no levy applies to Class 5 cleanfill operations. As outlined earlier, the Waste Disposal Levy for Class 1 landfills is scheduled to increase by $15 over the next three years.

The Nelson Regional Development Agency (NRDA) provides data and insights services, including up-to-date information on the Region's economy and tools to assist the Region's businesses and organisations with planning, policy, and strategic decisions. Using Infometrics data[61] and data

[61] Economic insights & reports (nelsontasman.nz)

compiled for the NRDA in February 2024[62], key features of the Region's economic activities are summarised as follows:

- Nelson-Tasman's economy generated $6.6 billion of GDP in 2023 and had 60,058 filled jobs.
- For the year to March 2023, Nelson-Tasman's GDP represents approximately 1.7% of New Zealand's total GDP. Provisional GDP, for the year to March 2024, measured $6,508 million which was provisionally down 0.8% from a year earlier (greater than national rate of -0.2%).
- Average annual economic growth in the Nelson-Tasman Region over the 10 years to 2023 is 3.0% per annum compared with an average of 3.0% per annum in New Zealand.
- Since 2000, of the four broad industry categories used to measure GDP, 'Other Services' accounts for the highest proportion of the Region's GDP (43.8% in 2023), followed by 'High-value Services' (24.6% in 2023), then 'Goods-producing Industries' (23.1%). Over the same period, 'Primary Industries' account for the smallest proportion of GPD in the Nelson-Tasman (6.9% in 2023).
- '**Manufacturing'** and '**Professional, scientific and technical services**' industries made the largest contributions to overall annual growth in the Nelson-Tasman Region, year to March 2023. These industries grew by 10% and 8%, respectively over the year and contributed a total of $67 million to the Region's total annual growth of $77 million.
- In the year to March 2023, 'Agriculture, forestry and fishing', 'manufacturing', 'health care and social assistance' and 'construction' are the four industries that contribute the highest levels of employment within the Region.
- For the year to March 2024, the average unemployment rate in Nelson Tasman was 3.0% which is close to the lowest rate recorded over the past decade (2.9% in 2018, with a high of 5.3% in 2015). Notably, according to Infometrics data, between 2012 to 2022, **construction industry** was the biggest contributor to economic growth in the Nelson-Tasman Region ($222 million out of a total increase in GDP of $1,524 million) and created the most jobs over the decade also (2,000 out of 9,500). For the decade to March 2023, the 'Professional, scientific and technical services' exceeded the construction sector as the highest contributor, with the construction the second highest contributor.
- The Nelson-Tasman Regional Workforce Plan[63] identifies **construction, aquaculture, visitor, forestry and wood processing**, as having high job demand in 2028 compared to forecast national averages, as well as future high job demand in the '**retail trade**' and '**health care & social assistance**' sectors.

Following the impacts of the global pandemic, in recent years New Zealand has been experiencing a cost-of-living crisis driven by high inflation rates (that reached an almost 40-year high in 2022/2023). The reduction of visitors to the Region due to the global pandemic had clear impacts on businesses, particularly hospitality and tourism providers. As of end of May 2024, Treasury expects the economy to remain subdued in the near term as it continues to rebalance from a period of strong demand, tight supply and historically high inflation[64]. Employment rates have been stronger than predicted in recent years, however several leading national indicators, including retailer confidence and retail sales, commodity prices, and construction cost inflation have been

[62] Nelson-Tasman Regional Economic Briefing – 2023 data update (nelsontasman.nz) Report prepared for NRDA by Benje Patterson (February 2024)
[63] Te Mahere Ohumahi ā-Rohe o Te Tauihu Te Waka-a-Māui | Nelson Tasman Regional Workforce Plan 2023 | Ministry of Business, Innovation & Employment (mbie.govt.nz)
[64] Budget Economic and Fiscal Update 2024 | The Treasury New Zealand

falling, indicating a gradually cooling economy. Treasury forecasts unemployment rates will increase over the coming years with inflation falling [65].

Managing the impacts of geopolitical tensions and environmental pressures on the economy are ongoing. These include disruptions to supply chains, restrictions in raw materials and energy supplies, as well as local impacts caused by multiple severe weather events, including the August 2022 flood events in the Nelson-Tasman Region. Disruptions to supply chains are expected to continue with ongoing impacts from climate change.

Though forecast to slow down from recent levels, construction and demolition activity is expected to continue in the Region driven in part by Government housing and public works projects, population growth, the redevelopment of Nelson hospital, local-government civil projects, and building resilience within the regional roading network.

What does this mean for waste planning in the Nelson-Tasman Region?

Engaging with key industries and sectors across the region to develop a better understanding of commercial and industrial waste streams is critical to support the planning of future waste services and infrastructure for the region. Collaboration between Government, community and businesses across the Region will be necessary to find local solutions to reduce certain waste streams, including organic wastes and construction and demolition materials, alongside the development of enabling and regulatory frameworks.

Better access to data on wastes generated from key sectors is expected to arise from recently implemented government regulations requiring waste operators to report on wastes (and diverted materials) tonnages and sources. Further changes to waste legislation would also support data capture on waste flows through proposed waste licensing requirements, implementing regulated product stewardship schemes, and developing tracking systems for hazardous wastes. The Councils can take an active role in advocating for improved data systems. Local regulatory frameworks (e.g. resource management plans or bylaws), as well as possible future changes to the Building Act (requiring site waste management plans for building projects), may also play a role in supporting waste minimisation action, especially within the local construction sector.

While projected increases in landfill disposal costs (including the Waste Disposal Levy) are intended to increase diversion from landfill, this needs to be balanced against affordability and unintended effects (such as illegal dumping or inappropriate disposal to cleanfill). Successful diversion of materials to alternative end-markets requires economic conditions that enable sustainable infrastructure and operations that also protect public health, safety and the natural environment. It is anticipated that there will be continued investment into waste minimisation activities and related infrastructure from increased revenue from the Waste Disposal Levy.

There is a growing awareness of the significant environmental and cultural issues relating to soil loss in the Region and country[66]. Recent discussions between local authorities and the civil contracting industry are highlighting concerns there is increasing pressure on Class 1 landfill facilities to accept lightly contaminated soils from HAIL sites when land is developed, or for facilities currently classed as ‘cleanfills’ to be upgraded to accept some level of contaminated materials. Council has limited access to information about the capacity and compliance of Class 3

[65] Budget Economic and Fiscal Update 2024 | The Treasury New Zealand
[66] LandCare Report (envirolink.govt.nz); Urban ground truths | Parliamentary Commissioner of Environment (pce.parliament.nz)

to 5 landfills in the Region, noting there are not Class 2 (C&D) waste disposal facilities in the Region.

A lack of consented disposal facilities and tightening controls on the disposal of material to land contribute to soil loss and soil disposal issues in the Region. Materials with low levels of contamination, previously regarded as “cleanfill” are no longer able to be disposed as a permitted activity given contamination levels are above regional background levels.

It is estimated that in the order of 100,000 tonnes of this material is produced annually according to Council staff discussions with industry representatives. If this material is disposed to York Valley, it could materially shorten the life of the landfill. Conversely, with a lack of Class 3 and 4 disposal facilities, contaminated material could be disposed to inappropriately to "cleanfill” or unapproved facilities.

There are few environmental controls or compliance requirements at Class 3 to 5 facilities, given the inert nature of the materials that are these sites are designed to dispose of. Disposal charges for these operations are therefore markedly lower than Class 1 landfills. The lack of specific controls and clear guidance on cleanfill acceptance criteria have introduced a lack of clarity on the fate of ‘cleanfill’, in particular moderately or lightly contaminated materials.

While the Councils have limited direct influence on reducing the quantity of wastes generated and disposed to landfill across the wider community, industry and commercial sectors, Councils can influence waste minimisation outcomes and emission reductions via their own operations, civil works, and through procurement processes. This can help facilitate others to do the same. With careful planning and prioritising, significant amounts of material generated from such projects can be designed-out, minimised and diverted. This “walking the talk” is an area the new Joint Waste Plan can focus on.

7.7. Lifestyles and consumer behaviours

The global economy is consuming ever more natural resources. Evidence provided in the 2024 edition of the UNEP Global Resources Outlook67 brings together the best available data, modelling and assessments to analyse trends, impacts and distributional effects of resource use. The report shows continuing rising trends in global resource use and consumption, with the demand for resources expected to continue in the coming decades. The report also describes the potential to turn negative trends around towards a trajectory that supports UN Sustainable Development Goals.

At a global scale, the amount of waste generated from these consumption rates is discussed in a UNEP 2024 report entitled, Global Waste Management Outlook. This report provides an update on global waste generation and the cost of waste and its management since 2018. The analysis uses life cycle assessments to explore what the world could gain or lose through continuing business-as-usual, adopting halfway measures, or committing fully to zero waste and circular economy societies. The report’s projections show that a “*circular economy model, where waste generation and economic growth are decoupled by adopting waste avoidance, sustainable*

[67] Global Resources Outlook 2024 | UNEP - UN Environment Programme

business practices, and full waste management, could lead to a full net gain of USD 108.5 billion per year"[68].

At a national level, in 2024, the Parliamentary Commissioner for the Environment undertook an overview of literature on resource use and waste generation in Aotearoa New Zealand[69]. The research report presents an initial estimate of the quantity of all wastes, residues and pollutants generated annually in New Zealand. Data limitations mean that this estimate "*remains incomplete and, in many cases, imprecise*". The report found no existing NZ research that has comprehensively assessed how resource flows into and out of the New Zealand economy might evolve over the coming decades. It mentions that forthcoming solid waste monitoring regulations are expected to improve the understandings of waste volumes and management pathways over the next year or two.

Results from a national Kantar Better Futures survey in 2023/2024[70], alongside results from previous years, show that New Zealanders' personal commitment to living sustainably continues to feature strongly. Although the 2024 survey showed that 'cost of living' came through as the primary issue impacting NZ consumers lives and purchasing behaviours this past year or so, many respondents continued to express a strong commitment to living a sustainable lifestyle, with varying levels of action and responsibility. The results from the survey showed a continued rise in the size of the 'EcoActive' segment within the NZ consumer population (38%). The survey also found that as with previous years, three of the top ten environmental concerns for New Zealanders relate to waste issues: microplastics in the environment; managing our waste including recycling; and overpackaging/non-recyclable packaging.

For Nelson-Tasman, a recent 2024 survey[71] found that 76% of respondents consider they as individuals are highly responsible for reducing waste (along with 69% of businesses who were surveyed in a similar survey in 2022). The 2024 survey results also indicate that residents want to see more action from the government to reduce waste (e.g. 29% of residents think the local councils do enough to reduce waste, and only 13% think the Government is doing enough).

There are certain local and Government initiatives underway that support efforts to decouple the quantity of waste generated from consumption rates. Some of these are signalled in the NZWS, including proposed legislative changes[72]. Enabling people to access durable, repairable, or reusable products and to choose methods that avoid generating waste in the first place, requires wide-reaching economic change, typically beyond local councils' controls. The development of a circular economy strategy for New Zealand was a government action included in the first Emissions Reduction Plan to support this type of economic change. As mentioned earlier, MBIE recently completed research[73] on how the government can support businesses and consumers to reduce barriers to shift towards more a circular economy to develop regenerative, low-waste, and low-emissions outcomes.

[68] Global Waste Management Outlook 2024 | UNEP - UN Environment Programme
[69] Resource use and waste generation in Aotearoa New Zealand: A literature review | Parliamentary Commissioner of Environment 2024
[70] Better Futures 2024 Survey, Kantar (kantarnewzealand.com)
[71] Nelson Tasman Rethink Recycling Survey - Kantar 2024
[72] Refer page 40 of NZWS 2023 - 'Priority 4.2: Repairing more things and 'Priority 4.3: Reusing things'; also the current proposed Bill to amend the Consumer Guarantees Act 1993.
[73] Barriers, enablers and approaches for a more circular economy | Ministry of Business, Innovation & Employment (mbie.govt.nz)

What does this mean for waste planning in the Nelson-Tasman Region?

A challenge for the plan will be include actions that respond to waste quantities generated by resource use and consumer behaviours by ensuring the provision of sanitary and environmental services, but to also prioritise actions that support methods to decouple waste generation from economic activity and the local consumption of resources. Continuing to research community behaviours and attitudes is also important to reflect current community values and identify priorities.

As advised in the NZWS, the Councils and the local waste management sector (together with support from the Government) can consider how to cater for future repair and reuse systems when developing local infrastructure that supports the collection and processing of products and materials. Promoting community behaviour change programmes that help to shift attitudes from perceiving recycling as the most desirable behaviour, to those actions which actively avoid or reduce waste in the first place, will also be critical[74]. Such programmes help normalise avoiding and reducing waste (e.g. repair and reuse services and systems), however these initiatives also require wider systemic change to be effective and feasible.

7.8. Diverted materials – supply, demand, and required infrastructure and services.

Data presented in section 5 indicates a significant quantity of material get diverted from landfill for recycling or composting, however landfill data indicate there continues to be further potential to recover materials or avoid waste generated in the first place. The following factors influence resource recovery activities:

- demand for, and supply of, recoverable materials
- quality of the recoverable materials
- demand for the reusable/reprocessed materials
- viability of local and overseas markets
- logistics and transport costs
- processing costs and infrastructure capacity
- demand generated by other community and waste minimisation programmes.

With demand and supply determining the competitive market price for products/materials, it is expected that as the price for diverted materials increases, supply will also increase, and more material will be diverted from landfill. Conversely, if there is a low commodity price for a diverted material or it drops below the cost of collection and landfilling, it is possible that diverted materials may be landfilled, stockpiled, or require additional subsidy.

In 2018, China implemented a policy known as ‘National Sword’ which restricted, and in some cases banned, the import of mixed recyclable materials to China (specifically, paper/cardboard and plastic materials). This has had far-reaching impacts on the resource recovery sector globally. Supply chain restrictions during the Covid-19 pandemic and fluctuating oil prices in recent years have also resulted in limited access to offshore markets for NZ’s recyclable materials. New Zealand does not have processing facilities with enough capacity and demand to process all

[74] For example, Take the Jump initiative that Nelson Tasman Climate Forum has been supporting; and Love Food Hate Waste programme.

kerbside recyclables, and therefore volatile international commodity pricing and geopolitical shocks makes NZ vulnerable when export markets are disrupted, and shipping routes restricted.

It is now a regulatory requirement for councils in Aotearoa New Zealand to provide a kerbside recycling service to households in urban areas. In February 2024, government regulations also came into force to standardise the types of recyclables collected in kerbside collections, to improve the quality and consistency of recycling across the country. Most materials collected from kerbside bins are single-use packaging, either made from glass, cardboard/paper, plastic resins (#1, #2 and #5), aluminium cans, or steel tins. Related to kerbside recycling services, in 2021 a national Container Return Scheme (CRS) for beverage containers was also co-designed by industry and community stakeholders, with government support. A CRS is designed to increase the recovery rate of beverage packaging materials by introducing a deposit/refund on empty containers. The scheme was deferred by the previous Government in 2023, and future implementation is uncertain.

Further, at the time of writing the Food & Grocery Council and Packaging Forum are leading research into the design of a national plastic packaging product stewardship scheme (as one of six priority products regulated by the Government in 2020). At the time of writing, one of their recommendations to the Government is to co-design a scheme that includes all packaging rather than plastics only[75]. Such schemes for packaging, if implemented, will impact how kerbside collection systems are funded and operated in the future.

While national developments to address single-use beverage packaging and plastic waste remain uncertain, negotiations at a global scale on a Plastics Treaty continue through the work of an Intergovernmental Negotiating Committee (INC). Negotiations are expected to be completed in 2025[76], with the purpose of the Plastics Treaty is to address increasing concerns relating to plastic pollution and associated health and environmental harms, including within the marine environment[77].

The requirement for all councils to provide collections of domestic food scraps to urban households (with or without garden waste) was signalled in the NZ Waste Strategy. While many local authorities across the country provide or enable these types of collection services, legislative change would be required to make this a mandatory requirement. Nelson City and Tasman District Councils have begun a detailed business case for a kerbside collection service for food scraps, following previous investigations. The business case will support decision-making for both Councils given the significant investment required to provide the necessary local collection and processing infrastructure.

Just as systems and infrastructure are essential to recover recyclable materials, reusable packaging systems and products also require infrastructure and reverse logistics to facilitate their collection, sorting, and processing/redistribution for reuse. Reusable packaging systems (e.g. reusable crates, kegs, pallets, takeaway containers, service-ware) and the reuse of products (e.g. leasing/hiring services, reuse of second-hand goods and building materials) is a current focus area of local and global research and development[78], given the opportunities to avoid or reduce the quantity of waste produced in the first place (and associated energy and resource use). Research

[75] Plastic Packaging Product Stewardship (PPPS) Scheme Co-Design Project
[76] Towards an international treaty on plastic pollution | Ministry for the Environment
[77] Plastic Pollution Science - report to UNEP April 2024
[78] The Circular Economy and Reuse (ellenmacarthurfoundation.org); The Role of Reuse in Helping Families Through the Cost-of-Living Crisis | WRAP; Assessing the Climate Impact: Reusable systems vs Single-Use Takeaway Packaging (Zerowaste Europe, Eunomia 2023).

was commissioned by the Councils in 2022 to determine the current scope and future potential of reusable packaging for food, beverage and other household goods in the Nelson-Tasman Region. The report presents a comprehensive summary of businesses and others across the community who are playing active roles enabling reusable or refillable packaging systems, and outlines opportunities and recommendations to grow the uptake of reusable packaging in the region[79].

In 2023 and 2024, further research by Reuse Aotearoa[80] (commissioned separately by Auckland Council and Environment Waikato), highlights the opportunities and challenges for reusable packaging systems within these regions, and outlines the roles territorial authorities and the resource recovery sector can play to support them. The reports showcase existing reusable packaging reverse logistics services and infrastructure, highlighting the organisations that enable these systems, particularly in business-to-business contexts. To address identified gaps, the research provides recommendations for local government and the supporting resource recovery sector to advance the scale and uptake of reusable systems and activities.

What does this mean for waste planning in the Nelson-Tasman Region?

Community expectations, changing policy directions, and increasing waste disposal costs will continue to drive demand for resource recovery, recycling, and reuse services and associated infrastructure. Providing clear and verifiable information on quantities of materials recovered, how and where, will ensure the integrity of outcomes, as well as support community engagement to address mixed perceptions and scepticism.

The introduction of standardised recycling collections across the country provides opportunities to increase diversion and improve the quality of material recovered. As mentioned earlier, the Councils are undertaking a business-case investigation for a household food scraps collection (and associated processing options), and if introduced, such a collection service may support the diversion of organics from businesses also. The Councils will need to continue to adjust to the financial implications of providing kerbside recycling services for households when there is no certainty around markets (both on and offshore) for the collected materials.

The Councils will also need to consider what degree of investment and facilitation the Councils should provide for diverting other recoverable materials and hazardous wastes. For example, construction and demolition waste and potentially contaminated soils make up a significant proportion of materials sent to landfill and the Councils have already begun to address these issues to varying extents (e.g. C&D recovery trials at Richmond and Nelson council facilities, and recent discussions with civil contractors regarding options to better manage surplus soils). The previous government had signalled mandatory building site waste management plans as part of amendments to the Building Act 2004. Having services and infrastructure in place to support the demand for material diversion will be essential, including viable end-markets and systems to incentivise the reuse or recycling of recovered materials. Likewise, there will be a role for the Councils to continue to support the design and implementation of industry-led product stewardship schemes for various priority products. Product stewardship schemes (or extended producer responsibility) and the financing of these systems are expected to play a growing role in the provision and financing of resource recovery services in the Region. A recent example is the

[79] Reusable Packaging Systems in Nelson-Tasman (Reuse Aotearoa, 2022)
[80] B2B reusable packaging infrastructure and reverse logistics in Auckland - Reuse Aotearoa; Return to Reuse: The potential role for Waikato's territorial authorities and the resource recovery sector (Reuse Aotearoa, 2024)

implementation of a national scheme for end-of-life tyres, Tyrewise, which is designed to cover the costs associated with the recovery and recycling of end-of-life tyres.

The other area for consideration will be the role of community-led initiatives and the level of support provided by the Councils as part of an integrated approach to resource recovery and diversion. The previous government began developing a draft Action and Investment Plan which signalled a 'hub and spoke' approach which would support regional resource recovery investment. Council-funded, community-led resource recovery centres, which support the recovery of reusable goods and products as well as recyclable materials, are operating successfully in other parts of the country, creating social and economic benefits to the communities they serve[81]. Such models operating locally could be further supported in the Nelson-Tasman Region through the new Joint Waste Plan.

With all the above, the lack of data at both a regional and national level remains an obstacle for the Councils to design and support sector-wide solutions, however the Councils can take direct opportunities to support the diversion of waste and recovery of recyclable/reusable products and materials through their own internal procurement processes also.

7.9. Innovation and emerging technologies

Technological changes and innovations create both opportunities and challenges when managing and minimising waste. These can relate to the:

- types of materials used in products and packaging.
- waste sorting equipment and collection logistics.
- tools to help engage and share information with customers and consumers; and
- systems and technologies to manage and process waste and recover value.

Existing and emerging technologies (e.g. robotics, artificial intelligence (AI) and digital platforms) present opportunities to improve access to goods or services and data, as well as improve how materials can be collected, sorted and processed at their end-of-life. Changes in technology and access to new materials also influence how products are designed, made, and marketed. An example is the increasing use of lithium-ion batteries in numerous consumer electronic and electric products. While this innovation has changed how many products are now used and powered, these batteries create an increased fire risk for the waste and resource recovery sector. Another example is the use of composite materials in packaging, or in products such as construction materials. While these offer certain beneficial properties, they also result in the materials not being easily separated into component parts, making them difficult to reuse or recycle. Considering end-of-life options for new products and materials is a key aspect in the design of effective product stewardship schemes.

Developments in waste processing technologies to recover value from discarded materials is another area of continual research and development. In August 2020, the Government released guidance on Waste-to-Energy (WtE) technologies which provides an overview of the different types of WtE technologies and considerations relating to the New Zealand context[82]. The guidance

[81] Zero Waste Network New Zealand
[82] https://environment.govt.nz/publications/waste-to-energy-guide-for-new-zealand/

document sets out the following four key principles which provides a framework for local authorities and other entities who may be considering WtE proposals and the potential implications:

- Principle 1: The proposal should support the goal of moving New Zealand steadily up the waste hierarchy towards a circular approach to managing resources.
- Principle 2: The environmental impacts must be well managed, especially the greenhouse gas emissions.
- Principle 3: The proposal must be commercially viable over the long term.
- Principle 4: There should be a strong level of support from the community and Treaty partners.

Recent research commissioned by Environment Waikato[83] and a report prepared by Auckland Council for its Waste Assessment 2023[84] set out considerations and implications relating to waste to energy technologies. Both conclude high-temperature incineration of mixed, municipal waste results in negative greenhouse gas emissions compared to landfill options, and other waste to energy technologies, such as anaerobic digestion, which process specific bio-based waste materials.

What does this mean for waste planning in the Nelson-Tasman Region?

The Councils will need to continue to monitor and adapt to both local and global technological changes and innovations, where appropriate for the region. The Councils can use available methods and tools to engage, advocate, regulate, and monitor the various impacts that new products or technologies may present to our local waste services and systems.

Regarding WtE, some technologies already exist in the region – such as using captured landfill gas from the York Valley Landfill for a heating source for Nelson Hospital, or the use of forestry wastes as fuel in industrial boilers or home heating systems in the region. The degree to which a specific WtE technology may be successful will depend on the waste type and energy context. The level of support from Iwi partners, key stakeholders and local communities would be expected to be highly dependent on the types of feedstocks to be processed, location, and key outputs and would be subject to further engagement across our community.

Capturing landfill gas from the York Valley and Eves Valley Landfills is deemed a necessary requirement and is likely to continue, as it provides odour control and an important contribution to reducing landfill greenhouse gas emissions[85] – and in the case of York Valley Landfill provides an energy source that supplements a fossil fuel and benefits the region too. However, actively seeking methods to reduce and divert organics materials from the landfill to avoid the production of bio-genic methane in the first place remains a key priority for both Councils and is included in the Council's Climate Plans and the government's Emissions Reduction Plan.

[83] Waste to energy technology implications in the Aotearoa New Zealand context (waikatoregion.govt.nz)
[84] Waste Assessment Appendix C - Waste to energy applications and implications for Tamaki Makaurau - 2023 (aucklandcouncil.govt.nz)
[85] The breakdown of organic materials in a landfill environment produces methane gas, and while the gas capture system at York Valley Landfill is reported to capture a high proportion of this bio-genic methane gas, there will always be a varying proportion that will escape into the atmosphere (without getting converted to CO_2). These fugitive gases contribute to greenhouse gas emissions.

Diverting organics from landfill enables the nutrient content of organic materials to be utilised- either for human or animal nutritional value (if edible) or to support and regenerate soil health in the form of composts, mulches, or soil amendment products. Likewise, the recovery of other organic materials (such as textiles, paper, cardboard, and building timber) can be used in other reuse or recycling applications, as well as potentially energy generation, where appropriate.

Considering the local context in the Nelson-Tasman Region, the establishment of a large-scale thermal incineration plant in the Region to process municipal wastes is unlikely to present a commercially viable option given the scale typically required for such plants and existing investment in the Region's landfill infrastructure..

Alternative thermal technologies, such as pyrolysis or gasification, may be favoured over incineration technologies for certain material streams, however these can be more expensive and are less-proven technologies. Processing specific organic wastes such as fibre or timber to produce specific products such as biochar could be explored, although would require a thorough evaluation against the above four key principles on a case-by-case basis.

Conversely, the use of anaerobic digestion (AD) technology as a process to generate energy from organic wastes is commonly used in NZ for wastewater treatment, and in 2022 NZ's first commercial AD plant to process food scraps was commissioned[86]. AD technology presents fewer economic, environmental, and social risks compared to the incineration of municipal waste and is also recognised by the Ministry for the Environment as sitting higher on the waste hierarchy than other WtE technologies. Processing organic wastes using AD may be an option to explore for the Nelson-Tasman Region, although there are other existing organic waste processing technologies that exist in the region as well as future options that can be explored also.

7.10. Managing disaster wastes

Natural and human-made disasters apply a different pressure upon waste services. The earthquakes in Christchurch, the Covid-19 pandemic, and the recent flood events in the Nelson-Tasman Region and North Island re-emphasise the need for future proofing and planning to ensure disaster waste can be effectively managed and materials recovered wherever possible – particularly given the impacts of weather events influenced by climate change. The 2022 flood event in the Nelson-Tasman Region highlighted the importance of contingency planning and the need to set land aside to safely manage disaster waste.

The Covid-19 pandemic tested the resilience of waste and /recycling systems nationally with many recycling services suspended at the time, and once the collection recommenced many councils experienced an increase in the amount of non-recyclable wastes being put into recycling bins ('contamination'). The global impacts from Covid-19 also included the ongoing supply chain disruptions that can impact the export of recyclable materials to overseas end-markets, as well as the import of new vehicles and bins for collection services. There are also related factors to consider such as the increasing trend for working from home and hybrid working, and the impact on commercial and domestic waste.

WasteMINZ is coordinating a local government working group on disaster waste management, with a workshop planned in March 2024. This will bring together work being done by territorial

[86] Ecogas Reporoa opening speech | Beehive.govt.nz

authorities and NEMA. The group is strongly advocating for solid waste to become part of lifeline utilities.

What does this mean for waste planning in the Nelson-Tasman Region?

It is unknown at this stage what legislation may come into play to support waste management during disasters, but significant planning is required in the Nelson-Tasman Region, both to manage associated waste and mitigate environmental and health impacts. This could include improving outcomes for handling disaster waste, recovering synthetic refrigerants or reusable materials following disasters, and limiting the disposal of disaster wastes to maintain landfill capacity and protect the natural environment from the impact of disaster generated waste.

Engaging with mana whenua is also important to consider specific local issues and sites of significance to Iwi / Māori, and the roles the Councils and Iwi take in responding to community needs during and following significant disaster events.

Alongside this are climate change adaptation considerations relating to future impact of sea level rise on vulnerable infrastructure such as landfills and closed landfills, impacts of severe weather on continuity of waste services, and the generation of waste materials due to forced or managed retreat. There is national-level work underway which will need to be considered in the development of regional disaster waste management plans.

7.11. Summary of key issues and opportunities

The following eleven key issues and opportunities are identified from the above discussion of future demands for waste and resource recovery services:

1. ***Price of disposal:***
   The price of disposal to landfill or other disposal facilities can significantly affect waste flows in the Nelson-Tasman Region. The price of disposing waste to landfill is controlled through the NTRLBU, and influenced the landfill's operational and capital costs, as well as the Waste Disposal Levy, Emissions Trading Scheme and the Local Disposal Levy, which are passed from the business unit to the two Councils. A projected increase in landfill disposal cost is likely to increase diversion from landfill but needs to be balanced against affordability and unintended effects (such as illegal dumping or inappropriate disposal to cleanfill).
2. ***Uncertainty in national policy direction:***
   Government legislation and regulations have a material impact on how solid waste activities will be delivered. The previous government introduced a new policy direction, proposing legislative reform and regulations, including potential requirements to meet performance standards for diversion of waste. There remains a high degree of uncertainty as to whether and when new legislation will be finalised – this includes areas such as the future proposed container return scheme, mandating organic waste collections, and uncertainty about how the waste disposal levy will be allocated in the future and what impact that may have on Councils ability to delivery waste minimisation.
3. ***Strengthening the partnerships between the Councils and Te Tauihu iwi:***
   Strengthening partnerships between the Councils and Iwi consistent with the Kia Kotahi Te Tauihu, Together Te Tauihu partnership agreement is an opportunity to improve outcomes for all.

4. ***Reducing greenhouse gas emissions and responding to climate change:***
   There is an increasing need to consider mitigation (reducing emissions) and adaptation (ensuring infrastructure is resilient) in how the Councils deliver waste minimisation and management.
5. ***Reducing waste generation – moving to a circular economy:***
   There remain significant opportunities to avoid or divert waste through moving activities up the waste hierarchy (circular economy approach). This can be achieved by designing out waste and supporting the decoupling of waste production from economic growth, alongside reuse and repair activities. This could include focusing on specific locally important waste streams, or those in line with national priorities.
6. ***Improving diversion of waste from landfill:***
   Alongside supporting a circular economy, there are opportunities to divert through optimising recycling and diversion of materials such as organics, soil and rubble. Factors such as uncertain commodity markets, lack of data and capacity to process materials onshore affect the feasibility of this diversion. Services for commercial waste, residential kerbside refuse and green waste are predominantly commercially owned with services provided on a user-pays basis. This impacts on the Councils' control of waste streams and subsequent ability to influence waste minimisation behaviour change.
7. ***Developing collaborative relationships and partnerships:***
   Collaboration with the Government, other councils, waste industry, not-for-profit sector and the community (including industry and business) is critical for waste minimisation and will continue to require strategic investment supported by Government waste levy funding.
8. ***Managing disaster waste:***
   Waste generated by disaster events has been identified as a significant issue which requires a greater degree of preparation and planning.
9. ***Accessing data and reporting:***
   There continue to be significant data gaps, including commercial and industrial waste data, rural waste data, and information on privately-owned disposal facilities, which may limit the Councils' progress in effective waste management and minimisation activities. If this area is not addressed through new legislation, this will need to be a focus for improvement.
10. ***Protecting public health and safety:***
    Safe disposal of waste is a key sanitary service. Issues such as the effective management of hazardous waste and risks such as fires from batteries, need careful consideration to ensure that public health is protected.
11. ***Protecting the natural environment:***
    There is a need to ensure that waste facilities are managed in a manner which protects the natural environment, including disposal of material in the right class of landfill with the right environmental controls. There is also a need to continue to address illegal dumping and littering, as well as improving management of rural waste and how materials such as contaminated soil and disaster waste are managed.

8. PROPOSED FUTURE PLANNING FRAMEWORK

8.1. Strategic changes since 2019

As set out in section 3, since the Councils adopted the 2019 Waste Plan, there have been significant changes in national policy and legislation relating to waste minimisation and climate change. In accordance with the three-yearly review cycle, the Councils' Long-Term Plans have also been updated in 2021 and 2024 and reflect shifting strategic priorities that respond to recent global and local challenges, such as the COVID-19 pandemic and extreme weather events. The key changes in the Councils' and central government policy frameworks influence the strategic direction for future waste-related activities in the Region. These changes include:

- Signed Kia Kotahi Te Tauihu, Together Te Tauihu Partnership Agreement between Iwi and Councils of Te Tauihu.
- Stronger integration between responses to climate change and waste minimisation policy at national and local levels.
- Publication of an updated New Zealand Waste Strategy in 2023.
- 10-yr Long Term Plans and Activity Managements Plans approved by both Councils in 2024.
- New waste regulations relating to:
    - increasing the rate and application of the Waste Disposal Levy.
    - phasing-out specific single use plastic items.
    - regulating 'priority products' for product stewardship schemes.
    - standardising kerbside recycling collections; and
    - increasing waste reporting requirements for local authorities.
- Proposed amendments to the Consumer Guarantees Act relating to the 'right to repair'; and
- Proposed legislative reform of the Waste Minimisation Act 2008 and Litter Act 1979.

8.2. Developing an updated strategic direction

Through the review of the 2019 Waste Plan, the councils, along with their communities, have an opportunity to develop a renewed strategic approach to waste activities that reduce the quantity of waste disposed to landfill, increase the recovery of materials, and reduce the harms from waste.

Understanding where the Region and the Councils wants to be in the future is a necessary step to develop the long-term outcomes desired and to commit to specific actions that support this strategic direction. To facilitate this process, Figure 19 provides an overall proposed framework for a new joint Waste Plan. It is based on guidance on waste planning for local authorities from the Ministry for the Environment[87], coupled with the existing framework of the 2019 Waste Plan and other examples of recent Waste Management and Minimisation Plans from around the country.

The process to develop a new Plan is to be overseen by a Working Party of elected members and Iwi representatives. In 2023 and 2024, Council staff have also initiated early engagement with the

[87] Waste assessments and waste management and minimisation planning: A guide for territorial authorities | Ministry for the Environment

community on waste issues through various channels. Appendix M includes a summary of online feedback received from the general public through Shape Nelson-Tasman website.

The proposed waste planning framework in Figure 19 shows an overarching long-term vision developed from a set of guiding principles. Together, the Plan's strategic goals, objectives and targets form the basis of an Action Plan for the Council to lead over a six-year planning period. Targets included in the new joint Waste Plan should give regard to national policy as well as support the Councils' Long-term Plan Levels of Service and related performance measures[88].

Figure 19: Waste Planning Framework

9. OPTIONS ASSESSMENT

This section presents practicable options available to Council to address the key issues and opportunities identified in section 7 based on an assessment of anticipated future demands. Options can be used as a basis to support the development of a new joint Waste Plan, together with updating the Plan's strategic direction based on a proposed framework in section 8.

9.1. The roles of the Councils to deliver options

There are a range of roles the Councils can take to address waste-related issues in the Region, and to implement and deliver on the new joint Waste Plan. Table 7 describes these roles.

[88] Refer to Nelson City Council's and Tasman District Councils 2024 LTP waste-related Levels of Service performance measures and targets.

Table 7: Role of the Councils

Council's role	Description
Influencer of behaviour change	Given that the majority of the decisions about how waste is created and disposed of are made outside of the Councils controls, engagement with the wider community to support behaviour change is a critical part of the Councils' waste activities. The objective of this role is to encourage and enable people (across all sectors) to both avoid the creation of waste and to rethink how resources are used and disposed of. The intention is to move to a culture where reduce and reuse is the norm.
Support for action by others	The Councils, as Iwi-partners and representatives of the wider community, use a range of tools, including facilitation, engagement, grants, procurement, and other approaches to support waste minimisation and management. The provision of Council-supported services and infrastructure also provides opportunities to collaborate with Iwi, commercial, and non-profit organisations.
Service provider	The Councils provide a range of infrastructure and services which directly support the reduction and management of waste. The primary focus has been on support for residential waste diversion, but there is an increasing move towards activities targeting other sectors (for example new facilities to separate construction and demolition waste). The Councils' role as a service provider can also drive waste minimisation across the wider community.
Regulator	As a regulator, the Councils have some legal mechanisms that they can use to enforce behaviour change, promote the circular use of resources and prevent inappropriate waste management such as illegal dumping. These mechanisms include bylaws, and district and regional plan rules, and limited powers under the Litter Act 1972. Some other local authorities use local bylaws to prohibit the disposal of certain materials in either their kerbside refuse collection or from landfills or cleanfills. Others have introduced licensing systems to help manage and identify those who are generating, transporting and disposing of various waste materials. Bylaws can also be used to mandate waste minimisation for activities such as events and venues, as well as specifying the types of bins and times and places bins are set out on public land. The Councils also have powers to impose local levies on waste and set fees at their own facilities to encourage waste diversion. Regulatory tools are challenging to develop, costly to administer,-difficult to enforce and often require significant additional resourcing. It is recommended that this type of approach be considered where appropriate to support initiatives, but not be relied upon in themselves to achieve significant waste minimisation.

9.2. Options to form the basis of a new Joint Waste Plan

The options to take forward into a new Joint Waste Plan are presented in Table 8. These options were developed, assessed and ranked by a project team, which included staff from both Councils.

The team assessed the options using a multi criteria analysis, relating to environmental, social and economic benefits and the management of operating risks. The options are summarised and ranked as follows:

1. Focus on the top of the waste hierarchy: reduce, rethink, redesign.
2. Reduce soil and other inert material to landfill.
3. Respond to disaster preparedness and climate change adaptation and resilience.
4. Divert organic waste (food and garden) from landfill.
5. Increase diversion of recoverable materials
6. Manage hazardous waste.
7. Continue cross-Council collaboration to deliver the outcomes of the new Joint Waste Plan, including improved data collection and reporting.
8. Optimise Council collection services.

The eight options address the main issues/challenges identified in this waste assessment which can be summarised as:

- supporting the development of a circular economy and prioritising actions that sit higher up the waste hierarchy.
- reducing carbon emissions from waste and building resilience into waste infrastructure; and
- ensuring the safe management of residual wastes that protects and regenerates the natural environment.

For each option, examples of Council-led actions are provided, as well as the types of roles the Councils can take. Table 8 also shows which of the eleven issues/opportunities the options directly address (refer to the eleven issues identified and listed in section 7.6). It is noted that while all options may have potential relevance to Iwi / Māori, the specific #3 issue / opportunity relating to ‘Strengthening the Council-Iwi partnership’ was not assigned to any specific option. It was considered better for Iwi representatives, rather than the project team only, to determine which option(s) best relate to this specific issue / opportunity.

All options presented in Table 8 were assessed as having the potential to contribute positively to community outcomes, and do not require significant capital or operational investment beyond Long Term Plan budgets. The actions rely on the Councils’ capability and staff resourcing, alongside collaborative efforts with external partners and stakeholders. Should specific council-led research, investigative, or advocacy actions lead on to the need to implement new initiatives with significant investment, separate business cases will be required.

Table 8: Options to support the development of Council actions in the next Joint Waste Plan

Description	Issues addressed	Opportunities	Challenges	Council's role
Option 1: Focus on the top of the waste hierarchy: reduce, rethink, redesign				
Examples to investigate could include: • Expanding the Rethink Waste Whakaarohia programme of tools, education and resources to support community-led waste avoidance and reduction • Funding or other support for community-led resource recovery hubs or recovery programmes • Investigating and supporting reuse systems where appropriate • Advocating to the Government for the development of a circular economy strategy and legislation, including right to repair and product stewardship • Supporting Council activities to "walk the talk" which includes accounting for embodied carbon in different waste materials. • Regional and national advocacy	Issue 2: aligning with legislation. Issue 4: responding to climate change. Issue 5: supporting a circular economy. Issue 3 & 7: improving collaboration	• Increases community-led capacity. • Opportunities to seek investment through external funding. • Opportunities to focus on target waste streams.	• Cost implications for the Councils, including funding of engagement and resources to collaborate effectively. • Requires legislative change by Government to create effective conditions	Support for action by others Service provider Influencer of behaviour
Option 2: Reduce soil and other inert material to landfill				
Examples to investigate could include: • Changing planning rules or introducing other measures to support reducing the quantity of soil, rubble and other inert material to Class 1 landfills (including those containing naturally elevated heavy metals or those with low contaminant levels), and enabling alternative approaches for managing contaminated soils • Investigate need for additional facilities. • Advocate for national consistency between RMA and WMA	Issue 1: price of disposal Issue 6: improving diversion from landfill. Issue 11: protecting the natural environment.	• Protects environment and reduces legacy risk. • Protects public health. • Supports regional capacity to respond to disasters. • Opportunity to extend life of landfill. • Increase recovery of C&D materials	• Cost to undertake research. • Align with timing of national guidance	Service provider Support for action by others Regulator

Description	Issues addressed	Opportunities	Challenges	Council's role
		• Potential emissions benefit when soils remain in-situ. • Requires alignment with National Environmental Standard for assessing and managing contaminants in soils to protect human health regulations (NES-CS)		
Option 3: – Respond to disaster preparedness and climate change adaptation and resilience				
Examples include: • Climate change risk assessment of waste services/infrastructure and ability to prepare, adapt, respond and recover • Develop disaster waste management plan in collaboration with Iwi / Māori and key stakeholders. This could include: o modelling types and quantity of disaster waste in different scenarios o assessing effective methods for safe storing and handling of contaminated material, including effective management and minimisation of wastes which consider emission reductions e.g. refrigerants and organic wastes. o assessing capacity of infrastructure and services to respond to different scenarios o Identifying community resilience needs in waste management area. o Incorporating cultural and social considerations	Issue 3 & 7: improving collaboration. Issue 4: responding to climate change. Issue 6: improving diversion from landfill. Issue 8: disaster waste management Issue 10: protecting public health. Issue 11: protecting the	• Build regional capacity to respond to disasters. • Minimise waste as practicable in emergency response. • Protect cultural values, public health and environment. • Support community resilience. • Build trust through collaboration	• Significant resource required for detailed analysis and scenario modelling. • Requires significant community and stakeholder coordination. • High level of uncertainty in timing and scope of need.	Service Provider Support for action by others Regulator?

Description	Issues addressed	Opportunities	Challenges	Council's role
	natural environment			
Option 4: Divert organic waste (food and garden) from landfill				
Examples to investigate could include: • Continuing to enable diversion options for garden waste across the region • Where commercial options are not available, support if appropriate the development of local organic processing plant/s. • Implementing a kerbside collection service for food scraps (and garden wastes, if appropriate). • Reviewing frequency of rubbish collection alongside food waste collection	Issue 2: aligning with legislation. Issue 4: responding to climate change. Issue 5: supporting a circular economy. Issue 6: improving diversion from landfill	• Can support solutions which keep the use of organic materials near the top of the waste hierarchy. • May improve regional capacity and capability to process organic waste, including opportunities for commercial and industrial food waste	• Community buy-in may be challenging. • Cost for service and infrastructure	Service provider
Option 5: Increase diversion of recoverable materials				
Examples to investigate could include: • Extending the current MRF capacity • Increasing diversion capacity of Council sites or other facilities as appropriate • Extending residential recycling collection service to more properties • Supporting improved recovery of commercial recycling, including equitable access for waste service providers to MRF • Opportunities to divert other recoverable materials such as C&D waste. • Work with community to facilitate growth of local end markets.	Issue 2: align with legislation. Issue 6: improving diversion from landfill.	• Opportunity to futureproof regional capacity and capability through designing flexible facility that can adapt to future changes. • Opportunity to build collaboration with community to divert resources. • Supports development of local circular solutions	• Infrastructure cost • Commodity markets remain outside sphere of Council influence. • Unknown impact of potential government legislation such as container return scheme • Business services need to be commercially viable	Service provider Support for action by others

Description	Issues addressed	Opportunities	Challenges	Council's role
• Funding or other support for community-led resource recovery hubs or recovery programmes				
Option 6: Improve management of hazardous waste				
Examples to investigate could include: • Providing appropriate services for hazardous waste at Council facilities • Promoting existing product stewardship schemes which target hazardous wastes. • Advocating for a co-ordinated national hazardous waste management framework for transport, treatment and disposal	Issue 6: improving diversion from landfill. Issue 10: protecting public health. Issue 11: protecting the natural environment	• Reduces risks, including fires. • Protects public health. • Equitable access to services • Producer responsibility for hazardous waste through stewardship schemes can shift cost from rate payer to producer/consumer	• Health and safety management requires significant resourcing. • Risks to personnel handling hazardous materials • Additional cost to upgrade infrastructure to enable drop off at facilities	Service provider Support for others
Option 7: Enhance Cross-Council collaboration to deliver outcomes of joint Waste Plan, including improved data collection and reporting				
Examples to investigate could include: • Shared waste services where appropriate • Data collection and performance reporting • Collaborating with the Nelson Tasman Regional Landfill Business Unit to support waste diversion and effective waste management • Bylaws to achieve the objectives of the joint Waste Plan, where this is not covered by national legislation. • Developing better systems to access information about privately managed waste disposal sites and other waste disposal sites (including farm dumps) and monitoring capacity and risks associated with these sites.	Issue 2: aligning with legislation. Issue 6: improving diversion from landfill. Issue 3 & 7: improving collaboration. Issue 9: data Issue 11: protecting the	• Opportunity to establish a consistent data management approach and use data more effectively to monitor performance of the joint waste plan and improve regional data. • Improves ability to fulfil central government reporting requirements. • Better supports evidence-based decision-making. • Collaboration enables shared efficiencies. • Protects environment and reduces legacy risk.	• Regional needs can make a shared service approach less practical. • Staff resourcing to develop and maintain data systems. • Requires collaboration with the private sector and access to potentially commercially sensitive data. • Information hard to source for historic landfills	Service provider Regulator

Description	Issues addressed	Opportunities	Challenges	Council's role
• Advocacy to central government and other organisations as appropriate to achieve the outcomes of the Waste Plan	natural environment	• Protects public health. • Supports regional capacity to respond to disasters. • Opportunity to extend life of landfill		
Option 8: Optimise Council collection services				
Examples to investigate could include: • Continuing to provide kerbside recycling collection service for households, public place recycling where appropriate, and public drop-offs at RRC/WTS • Implementing measures to reduce contamination in recycling collections • Investigating the delivery model and reporting requirements for refuse collection services and develop/implement, if appropriate • A waste bylaw and licensing or alternative incentive to to encourage waste reduction in domestic waste collections • Advocating to central government for product stewardship for packaging and the container return scheme	Issue 2: aligning with legislation. Issue 5: supporting a circular economy. Issue 6: improving diversion from landfill.	• Supports consistent recycling practices across the region. • Product stewardship would shift costs from ratepayers to producers/consumers. • Supports achievement of proposed government performance standards	• Government performance standards may be difficult to achieve without influence across all kerbside waste streams, including rubbish and greenwaste collection	Service provider Support for action by others

10. STATEMENT OF PROPOSAL

It is proposed that a new Joint Waste Plan for the Councils be developed using the eight options presented in section 9 (Table 8), alongside developing a renewed strategic direction based on the proposed future planning framework presented in section 8. The framework for the new joint Waste Plan will consist of two parts as illustrated in Figure 20:

- The strategic direction to promote effective and efficient waste management and minimisation in our region.
- A regional action plan on how the Councils intend to meet the goals and objectives of the Plan and ensure that public health and the environment is adequately protected.

Figure 20 Waste Plan Strategic framework.

A Working Party has been established to consider the information presented in the waste assessment and the proposed options, to provide direction and oversight for the review of the 2019 Waste Plan and make recommendations to the Councils. The Working Party comprises elected representatives from both Councils and has provision for iwi representation on the working group. An invitation was issued to Te Tauihu iwi in January 2023, and discussions are ongoing on how this can best be given effect to. Meanwhile regular updates on the process are provided to Iwi through appropriate Council channels.

The Councils propose that the new Joint Waste Plan be for a six-year term as required by legislation. This will be confirmed as part of the development and adoption of a new Joint Waste Plan which is expected to be completed by August 2025.

To meet future demand the Council propose to continue to provide, either jointly or individually, a variety of waste minimisation and management services, reuse and recycling centres, a materials recovery facility and landfill capacity for the region. In addition to continuing the existing services, the Councils propose to focus on the following five areas and develop a series of associated SMART actions and progress measures:

1. Strengthen partnerships and collaborative efforts
2. Prioritise waste prevention, reuse, repair, and repurpose activities
3. Address the impacts of climate change and natural hazards on the region's waste and resource recovery systems
4. Enhance efforts to recover and divert resources from being disposed to landfill
5. Enable waste solutions that take care of people and the environment

Additional services and/or facilities will also be considered, where appropriate to meet forecast demand, as part of the development and adoption of the new joint Waste Plan. Any new services or facilities would be given effect to through activities and budgets included in each council's respective Activity Management Plans and Long Term Plan (10-Year and annual budgets). The delivery of certain actions will be based on each district's priorities and may vary for each council.

11. COMMUNITY ENGAGEMENT AND CONSULTATION WITH WASTE PLANNING

There is no statutory requirement to consult on the outcomes of the Waste Assessment, however there is a requirement for public consultation to take place on a draft Joint Waste Plan. The Councils seek to engage, where possible, with Iwi and key stakeholders early in the process of developing a draft new joint Waste Plan.

As part of a collaborative approach, preliminary engagement with the wider community began in 2023. This involved using online tools to gather feedback from individuals and organisations on key waste planning priorities, with the intention to gain a stronger level of support moving forward. The feedback from this engagement will help to inform the development of the new joint Waste Plan.

12. STATEMENT OF PUBLIC HEALTH PROTECTION

The Medical Officer of Health for the Nelson Tasman Region (MOoH) has been consulted in the development of this Joint Waste Assessment. Feedback from the Medical Officer of Health was received in February 2024 and stated support for the Region's approach to waste planning and that "the draft waste assessment is a comprehensive and valuable resource for future planning ". A copy of the letter received from the MOoH is provided in Appendix B. The following is a summary of the observations made by the MOoH.

- The MOoH acknowledges that region faces environmental, social and economic challenges, including demographic change, health and social inequalities, housing shortages, climate instability, sea-level rises, environmental deterioration, resource constraints, and economic

activities which depend on externalising environmental harm. These challenges need to form the context for the next Waste Plan.

- The MOoH supports the Councils intent to collaborate where practicable in the management and minimisation of waste but recognises there may be a need to account for specific requirements within each council area depending on demographics and waste streams.
- Treaty partnership is essential and the MOoH commends the Councils commitment to work with the mana whenua of Te Tauihu and would like to see examples of strengthened partnerships and/or planned actions with iwi/Māori within the next Waste Plan.
- The MOoH highlights the health co-benefits from reducing greenhouse gas emissions, with major opportunities to bring about substantial reductions in heart disease, cancer, obesity, diabetes, road traffic injuries, air pollution and more.
- Recommends a specific focus on disaster waste planning, to enhance local resilience and to protect human health.
- The MOoH supports a focus on the top of the waste hierarchy and the need to advocate for improved waste policy.
- The MOoH identifies the importance of taking an equity lens to waste prevention and management – for example ‘user pays’ can disadvantage those most in need and can lead to unintended adverse health consequences.

The MOoH recommends the following be considered further within the next Waste Plan:

- Closer engagement with private operators to improve data / understand trends and to share progress through platforms such as a public dashboard.
- Increase education and engagement on waste ideas, issues and any changes to existing services, waste streams and recycling kerbside collections.
- Councils should continue to act as role models and share success stories.
- Improve clarity of messaging for a wider range of audiences including visitors to the region.
- Food waste minimisation should be a priority – both education and diversion – reaching a wider community – considering equity needs in any approach.
- Food waste disposal should be supporting collection schemes more broadly, with more support for Enviroschools principles and composting in more schools, food rescue schemes, relationships with supermarkets, better advertising of solutions, etc.
- Disaster waste management is reliant on good planning to reduce waste and to mitigate waste post-disaster. It is highly recommended that advance planning for this be included in the next Joint Waste Plan.
- Burning waste in rural areas needs to be addressed as has potential to cause significant air pollution and health impacts.
- Reducing waste through ‘circular economy’ and innovation is vital including learning from other cities and countries.

The MOoH also recognises the good progress that has been made against the 2019 Waste Plan target of 10% reduction of waste disposed to landfill per capita by 2030, with both Councils on track to achieve this goal and would like to see more aspirational waste reduction targets for the future.

This feedback has been used to finalise the Waste Assessment and to support the process to develop the next Joint Waste Plan. The wide range of waste services available in the Nelson-Tasman Region as provided by the Councils or by private industry will ensure that public health is adequately protected in the future. The Nelson-Tasman Region also has access to safe and sanitary landfills that meet national legislative requirements. While there is adequate access to Council and private waste management services, further service improvements and waste minimisation outcomes are achievable.

Appendix A: Glossary of key terms and acronyms

Key Term/ Acronym	Definition
AMP	Activity or Asset Management Plan
Anaerobic digestion	The process of breaking down organic material in the absence of oxygen; used to manage waste to produce biogas energy and a soil amendment.
Biosolids	Sewage or sewage sludge derived from a sewage treatment plant that has been treated and/or stabilised to the extent that it is able to be safely and beneficially applied to land.
The Councils	Nelson City Council and Tasman District Council
CERF	Climate Emergency Response Fund
Cleanfill site	A cleanfill is any facility that accepts only cleanfill material - which is described as material that, when buried, will have no adverse effect on people or the environment.
Cleanfill material	Material that when discharged to the environment will not have a detectable effect relative to the background and comprising virgin excavated natural materials (VENM) such as clay, soil and rock that are free of: • combustible, putrescible, degradable or leachable components • hazardous substances or materials (such as municipal solid waste) likely to • create leachate by means of biological breakdown. • any products or materials derived from hazardous waste treatment. • stabilisation or disposal practices • materials such as medical and veterinary waste, asbestos, or radioactive • substances that may present a risk to human health if excavated. • contaminated soil and other contaminated materials • liquid waste.
C&D Waste	Construction and demolition waste generated from any building construction or demolition works; and includes any concrete, plasterboard, wood, steel, brick, cardboard, metals, plastic or glass.
Circular economy	A circular economy is an alternative to the traditional linear economy in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.
Class 1 landfill	Municipal Solid Waste Landfill or Industrial Waste Landfill
Class 2 landfill	C&D Waste Landfill
Class 3 & 4 landfill	Managed/Controlled Fill
Class 5 landfill	Cleanfill
CRS	Container Return Scheme
Container Return Scheme	A resource recovery scheme that incentivises people to return empty beverage containers for recycling or refilling in exchange for a refundable deposit. A CRS is synonymous with a DRS (deposit return scheme (Europe) and container deposit scheme (USA and Australia).
Deconstruction	The extraction of fixtures, fittings, and materials from a building or structure in a way that preserves the value of those items so that they can be reused. This typically involves planning for the removal of specific materials and rehoming those with appropriate organisations for reuse.

Key Term/ Acronym	Definition
Disposal	Has the meaning given by the Waste Minimisation Act 2008. 1) In this Act, unless the context requires another meaning, disposal means— a) the final (or more than short-term) deposit of waste into or onto land set apart for that purpose; or b) the incineration of waste. c) In subsection (1)(a), for all purposes relating to the levy, final (or more than short-term) deposit of waste means any deposit of waste other than a deposit referred to in section 26(3). d) In subsection (1)(b), incineration means the deliberate burning of waste to destroy it, but not to recover energy from it.
Diverted material	Anything that is no longer required for its original purpose and would be disposed of or discarded if it was not diverted as a result of commercial or other waste minimisation activities.
Domestic waste	Waste from domestic activity in households
Environment	as defined in the Resource Management Act - the environment includes— (a) ecosystems and their constituent parts, including people and communities; and (b) all natural and physical resources; and (c) amenity values; and (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters
Electronic waste or E-waste	Any equipment, device or thing, the operation of which is in some way dependent on, or designed for the generation, transfer or measurement of, an electric current and/or an electromagnetic field and designed for a supply voltage not exceeding 1000 volts for alternating current and 1500 volts for direct current; and that is disposed of
ERP	Emissions Reduction Plan
ETS	Emissions Trading Scheme
Extended Producer Responsibility	A term often used interchangeably with Product Stewardship, however Extended Producer Responsibility signals that the onus to reduce waste applies throughout the supply chain for a product or an activity, including the design phase.
Fibre	Collective term for paper and cardboard
Food scraps	Domestic waste derived from any item of food and is organic in origin and includes fruit and vegetable scraps, meat, fish and bone discards, and any other similar food waste.
Green waste	Vegetative garden waste material including grass clippings, branches, weeds, leaves.
Hazardous substance	Means, unless expressly provided otherwise by regulations, any substance: 1. with 1 or more of the following intrinsic properties: a. explosiveness b. flammability c. a capacity to oxidise d. corrosiveness e. toxicity (including chronic toxicity) f. ecotoxicity, with or without bioaccumulation; or 2. which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any 1 or more of the properties specified in paragraph (a) · 3. which on contact with air or water (other than air or water where the

Key Term/ Acronym	Definition
	temperature or pressure has been artificially increased or decreased) generates a substance with any 1 or more of the properties specified in paragraph (a)
Hazardous waste	Means waste that: 1. contains hazardous substances at sufficient concentrations to exceed the minimum degrees of hazard specified by Hazardous Substances (Minimum Degrees of Hazard) Regulations 2000 under the Hazardous Substances and New Organism Act 1996; or 2. meets the definition for infectious substances included in the Land Transport Rule: Dangerous Goods 1999 and NZ Standard 5433: 1999 – Transport of Dangerous Goods on Land; or 3. meets the definition for radioactive material included in the Radiation Protection Act 1965 and Regulations 1982. It does not include domestic waste, commercial-domestic waste, inorganic material, construction and demolition waste or commercial waste.
HSWA	Health and Safety at Work Act 2015.
JWA	Joint Waste Assessment.
Joint Waste Plan	Joint Nelson-Tasman Waste Management and Minimisation Plan as defined in s43 of the Waste Minimisation Act 2008.
Landfill	Any site that accepts municipal solid waste (MSW), generally also accepts C&D waste, some industrial wastes, and contaminated soils. MSW landfills often use clean fill material and controlled/managed fill material as daily cover. Referred to in this document as a 'sanitary landfill'. Technical term is 'Class 1 Landfill - Municipal Solid Waste Landfill or Industrial Waste Landfill.
LGA	Local Government Act 2002.
LTP	Long Term Plan.
Long Term Plan	Prepared by each council every three years and covering the next ten years funding priorities; the current period for both the councils covers 2024-34
MfE	The Ministry for the Environment.
MRF	Material Recovery Facility
Material Recovery Facility	A facility to sort recyclable materials collected from kerbside collections. It may be a conveyor with manual sorting or a fully mechanised facility with minimal manual input. The region's only MRF is in Richmond.
Municipal waste	Total waste disposed to Class 1 landfill, less special waste.
NCC	Nelson City Council.
Nelson-Tasman Region	For the purposes of this waste assessment, this means the area covered by the combined Tasman District and Nelson City Council boundaries.
NES	National Environmental Standards.
NTRLBU	Nelson Tasman Regional Landfill Business Unit.
NZWS	New Zealand Waste Strategy.
Organics	Discarded compostable materials that are organic in origin and appropriate to be used as feedstock for composting or anaerobic digestion and includes garden waste and food waste.

Key Term/ Acronym	Definition
Product stewardship	When a producer, brand owner, importer, retailer or consumer accepts responsibility for reducing a product's environmental impact. Sometimes known as 'extended producer responsibility'.
Recover/Recovery	(a) extraction of materials or energy from waste or diverted material for further use or processing, and (b) includes making waste or diverted material into compost
Recycle/Recycling	The reprocessing of waste or diverted material to produce new materials
Reduce/Reduction	(a) avoiding waste generation, including by using products more efficiently or by redesigning products; and (b) in relation to a product, avoiding waste generation in relation to the product
RMA	Resource Management Act 1991 (and any replacement acts)
RRC	Resource Recovery Centre
Waste / Resource Recovery Centre	Facilities where wastes and diverted materials are collected, sorted and transferred for disposal or further processing.
Reuse	The further use of waste or diverted material in its existing form for the original purpose of the materials or products that constitute the waste or diverted material, or for a similar purpose
Special Waste	Special waste is any material that requires specific handling, pre-treatment or testing prior to disposal to ensure environmental and personnel protection. This could be a result of the quantity, concentration, composition or physical properties or hazardous nature (such as asbestos or chemical contaminated soil or waste). Examples of special waste are asbestos waste, contaminated soil, biosolids from wastewater treatment, treated sawdust and wood processing waste, animal carcasses, offal, industrial wastes.
SWAP	Solid Waste Analysis Protocol (SWAP). Ministry for the Environment-led baseline programme to provide solid waste composition information.
TDC	Tasman District Council.
The Community	includes everyone individually and in groups – households, settlements, iwi, all sectors including the public sector, businesses, Not-for-Profit Organisations, Community Boards, key agencies, and all residents living within the Nelson and Tasman Districts.
The Region	the combined administrative areas of Nelson City Council and Tasman District Council
Treat/treatment	Subjecting waste to any physical, biological, or chemical process to change its volume or character so that it may be disposed of with no or reduced adverse effect on the environment, not including dilution of waste
Waste	Waste means: • anything disposed of or discarded • includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste) • to avoid doubt, includes any component or element of diverted material, if the • component or element is disposed of or discarded.
WA	Waste Assessment
Waste Assessment	As defined by s51 of the Waste Minimisation Act 2008. A waste assessment must be

Key Term/ Acronym	Definition
	completed prior to a Waste Plan being reviewed.
WDL	Waste Disposal Levy
Waste Disposal Levy	A levy imposed under the Waste Management Act 2008 on waste disposed at a waste disposal facility.
WasteMINZ	WasteMINZ is the largest representative body of Aotearoa New Zealand's waste, resource recovery and contaminated land sectors.
WMA	Waste Minimisation Act 2008.
Waste minimisation	(a) the reduction of waste; and (b) the reuse, recycling and recovery of waste and diverted material
WRC	Waste Recovery Centre.
WMMP / "Waste Plan"	Waste Management and Minimisation Plan as defined in s43 of the Waste Minimisation Act 2008.

Appendix B: Letter from Medical Officer of Health

Health New Zealand
Te Whatu Ora

28 March 2024

Karen Lee
Waste Minimisation Advisor
Nelson City Council

Public Health Review of Nelson Tasman Draft Joint Waste Assessment 2023

Tēnā koe Karen,

1. Thank you for sending Nelson Tasman's *Draft Joint Waste Assessment 2023* (JWA) to the National Public Health Service (NPHS), Nelson-Marlborough (which also covers Tasman) for public health feedback, as part of the development of the Councils' next Waste Management and Minimisation Plan (WMMP).

2. Consultation with the Medical Officer of Health on a council's waste assessment is required under the Waste Minimisation Act 2008. The scope of the consultation relates to the role of the Medical Officer of Health (MOoH). This feedback was prepared by the Medical Officer of Health at NPHS-Te Waipounamu (Nelson-Marlborough) with input from the local Health Promotion, Health in All Policies and Health Protection teams. The purpose is to highlight issues of public health and community wellbeing covered in the assessment, rather than provide a detailed analysis. The Nelson Marlborough DHB Public Health Service provided feedback on the council's previous waste assessments, including input prior to the 2019 Joint Waste Plan.

Context

3. Both the NPHS-Te Waipounamu Region and local government have a general function under the Health Act 1956 of improving, promoting, and protecting public health. This is relevant for waste minimisation and management, since there is potential for harm to public health and community wellbeing, for example, through exposure to chemical and biological hazards and discharges, infectious disease risk from decomposition, pest insects and rodents, and from the location and operation of waste-related facilities. NPHS and council environmental health services also have specific functions in relation to landfills, statutory nuisances and some types of businesses which produced offensive and hazardous waste.

4. Waste prevention, minimisation and management have implications for community wellbeing and public health through the whole of the production, distribution, marketing, retail, consumption, reuse, recycling, resource recovery and disposal processes.

5. Nelson Tasman's Draft JWA 2023 provides an extensive compilation and analysis of information of the current state, concerns and trends in waste-related issues in the region, and the national and regional strategic and policy issues and priorities. It describes the complexities and inter-related aspects of production, use, reuse and waste very well, and will be a useful resource for progressing waste minimisation and improving waste management in the region.

Introduction and Overview

6. The region faces environmental, social and economic challenges, including demographic change, health and social inequalities, housing shortages, climate instability, sea-level rises, environmental deterioration, resource constraints, and economic activities which depend on externalising environmental harm. These challenges are part of the context for the next WMMP.

7. NPHS-Te Waipounamu region is overall supportive of the collaborative approach across Councils to integrate and align efforts. However, the MOoH also recognises that individual TAs may have specific requirements depending on population demographics and waste streams and this will need to be taken into consideration.

8. The MOoH commends the Councils reference to Te Tiriti o Waitangi as it is the authorative text under the contra proferentum. In addition, the Councils commitment to work with the mana whenua of Te Tauihu is essential to bring life to Te Tiriti. Where reference is made to the principles of Te Tiriti o Waitangi, it is recommended that the articles are also included as they are from the original Māori text. The MOoH is supportive of the reference to Iwi Strategies and Plans as they identify Māori aspirations. The MOoH supports Māori engagement right from the start of the 2019 Waste Plan review process.

The MOoH supports the alignment of iwi and Joint Waste Plan outcomes and recognises this as an opportunity to strengthen the partnership. It would be good to hear of concrete examples of the strengthened Iwi-Council partnerships, and/or planned actions with iwi/Māori in the next WMMP.

9. Climate change is another very important context that the JWA has highlighted, with the need for both mitigation and adaptation and for waste and climate targets to be considered together. We wish to highlight the health co-benefits from reducing greenhouse gas emissions, with major opportunities to bring about substantial reductions in heart disease, cancer, obesity, diabetes, road traffic injuries, air pollution and more. Climate change will also inevitably increase the frequency and severity of natural disasters which impact community well-being. Specifically, disaster waste plans will need to be developed proactively to support and enhance local resilience and to protect human health. Cyclone Gabrielle and other recent disasters (e.g. Canterbury earthquakes and asbestos for example) provide useful lessons.

10. Focussing on the top of the waste hierarchy is critical to reduce waste in the first place. A continuing need to advocate at a national level for improved waste policy to help build a circular economy with mandated product stewardship schemes is vital. This will support taking care of people and the environment and will help to secure and enhance any gains made with local waste minimisation efforts.

11. In addition, taking an equity lens to waste prevention and management is important so that all populations can benefit from a safe and sanitary environment and have equitable access (including available, affordable, appropriate access) to waste services. ‘User pays’ services can exacerbate pre-existing inequities and can lead to unintended adverse health consequences e.g. from fly-tipping, importance of free accessible needle exchange/ appropriate disposal services, etc.

Legislative and Strategic Context

12. The changes in national and regional strategy, policy and regulation on waste minimisation since 2017 and NCC and TDC's response in the Draft JWA 2023 Waste Assessment are intended to contribute to waste reduction and improved waste management, hence enhancing community wellbeing and public health.

13. Further changes in national and regional policy, legislation and strategy are in process. Notably, the National Public Health Service in Health New Zealand-Te Whatu Ora at a national level is involved in the Ministry for the Environment's development of the Waste Action and Investment Plan.

14. Ensuring that population and public health, environmental health and community wellbeing are integrated into national and regional policies, plans and services is important for the National Public Health Service. In summary key issues for us which are relevant to waste minimisation and management include:

i. Shared roles and responsibilities of NPHS and councils to improve, promote and protect public health. In recognition of this mutual goal, we would always value being part of pre-engagement rather than consultation, as appreciated in this opportunity.
ii. The application of Te Tiriti o Waitangi, as part of the strategic context for the council's WMMP, as well as for Pae Ora (Healthy Futures) for Health New Zealand- Te Whatu Ora;
iii. Promoting equity and seeking environmental health justice. Facilities which produce and process waste are commonly located in or near areas of socio-economic disadvantage. This can increase the risk of exposure to hazardous discharges and lessen amenity. Council planning and resource consent processes need to avoid creating or exacerbating community disadvantage; be this socioeconomic, or geographic.
iv. Similarly, the need to consider climate change mitigation and adaptation, in relation
v. to 'just transitions' for communities. A just transition seeks to ensure that the substantial benefits of a green economy transition are shared widely, while also supporting those who stand to lose economically. There are significant co-benefits for health and environment when considered together. However, some communities or sub- populations are likely to be more impacted by climate change than others and this needs to be factored in.

Progress Against the 2019 Joint Waste Plan

15. The MOoH notes the good progress made against the 2019 Waste Plan target of 10% reduction of waste disposed to landfill per capita by 2030, with both Councils on track to achieve this goal. It would be good to see more aspirational waste reduction targets for the future.

Recommendations

Our overarching feedback is that the JWA is a comprehensive and valuable resource for future planning. However, we recommend more attention to the following specific areas:

A. Education and Engagement:

i. Closer engagement with private operators to obtain more consistent and quality information on waste quantities generated, to understand trends properly and to reliably convey these to the public to monitor progress (e.g. public dashboard).
ii. Communicate, educate and engage early with communities (including iwi) on waste ideas, issues and any changes to existing services, waste streams and recycling

kerbside collections. This includes the ongoing development and review of waste education and minimisation programmes that engage with business, schools, kura as well as with the wider public. Councils are themselves acting as role models and positive stories can be shared.

iii. Information needs to be clear and simple and made accessible and comprehensible for a wide range of audiences, including culturally and linguistically diverse, visitors to the region, urban and rural, old and young and those with low literacy.

B. Food waste minimisation:

i. Community education on food waste minimisation should be a priority. The JWA does mention this but does not put sufficient focus on this relative to food waste schemes. NCC undertook a year-long food waste collection trial in 2021. Analysis showed each collection per household had approximately 5.2kg of food waste. That is a significant amount of weekly waste and minimising that should take priority.
ii. Collaborative approaches to educate and support individuals and communities around food waste minimisation should be encouraged and supported by the Councils.
iii. Such education and supports need to be ongoing and wide-reaching. Messaging needs to be appropriate to individuals and communities and through a range of media.
iv. Equity needs to be considered in any approach – for example, food planning may suggest the need for a weekly shop and for some budgets, this will not be possible.

C. Food waste disposal:

i. More schools should be encouraged and supported to use Enviroschools principles and to compost waste as far as possible.
ii. Food scraps collection schemes are small scale currently and some are fee-for-service. These factors introduce equity concerns, scalability, and economic-sustainability concerns – the Councils should be supporting and encouraging NGOs and private businesses where appropriate to address these.
iii. Grants may not be sufficient or provide sufficient organisational sustainability. The JWA specifically mentions Kai with Love as an example of a surplus food redistribution service that supported six locations across Nelson Tasman and a digital platform. We understand that Kai with Love has just closed, much to the dismay of the local communities it served, because of lack of funding and economic sustainability despite a lot of effort by its staff (volunteers).
iv. Ongoing relationships should be encouraged and supported between NGOs and supermarkets, e.g. Kai Rescue and its partner organisations work closely with local supermarkets.
v. Consider unintended consequences of any potential schemes – for example, the excellent food scraps kerbside collection service in Christchurch has had significant issues with the siting of its organic processing plant. https://www.newshub.co.nz/home/new-zealand/2023/12/stench-in-christchurch-s-bromley-to-clear-after-decade-of-unlivable-smell-as-organic-processing-plant-to-be-moved.html
vi. Really important that any schemes/initiatives/programmes are well advertised, and messaging reaches those who need it, e.g. Foodprint, Community Composting, Tim's Gardens etc.

D. Disaster and demolition waste and hazardous substances:

i. Disaster waste management is reliant on good planning to reduce waste and to mitigate waste post-disaster. It is highly recommended that advance planning for this be

included in the next Joint Waste Plan, as indicated.

ii. Hazardous waste and construction/demolition waste is a key concern for an area that is growing in population with associated house building and industry growth. It is pleasing to hear of construction industry initiatives, but it is equally important that they are supported and externally monitored to uphold their commitments.

iii. Burning waste in rural areas has been a real issue that causes significant air pollution and health impacts where there should be stronger compliance and enforcement frameworks.

E. Reducing waste through 'circular economy' and innovation:

i. The 'circular economy' is vital and includes the Mandated Product Stewardship Scheme. Whilst nationally led, this is important to maintain and expand, and to promote these schemes locally. The scheme for tyres, as launched this year (2024), is a valuable addition and needs to be well promoted. Agricultural containers with residues of harmful chemicals (as defined under HSNO) and dumping on own land are a real concern. Given the inability to enforce/regulate, this is an area of concern should harmful chemicals leach into waterways or affect future land use due to the potential risk of harms to human health.

ii. How other cities and countries are approaching waste issues similar to Nelson Tasman's can provide examples of innovation applicable for all the issues raised above.

Conclusions

The Medical Officer of Health – Nelson Marlborough supports this Draft Nelson Tasman Joint Waste Assessment and compliments Councils for the thoroughness of their assessment.

We hope these comments will assist with the development of the WMMP and look forward to seeing the Plan be further developed, with significant community engagement leading up to the consultation to capture their ideas and feedback on any proposed changes to waste services. NPHS-Te Waipounamu (Nelson Marlborough) looks forward to continuing links with TDC and the NCC on the future WMMP.

Thank you for the opportunity to provide comment to this Draft JWA.

Dr Rachel Eyre

Public Health Medicine Specialist / Medical Officer of Health, Interim Clinical Director – Nelson Marlborough, Health NZ - National Public Health Service

Appendix C: International Commitments

Aotearoa New Zealand is a signatory to the following key international multilateral agreements that impact and influence our domestic legislation for waste minimisation and disposal:

- Basel Convention (ratified by NZ in 1994) – aims to reduce the movement of hazardous wastes between nations. Recent amendments were made in 2020 mostly relating to the export of mixed plastics to require consent from the receiving country before they leave New Zealand.
- Waigani Convention (ratified by NZ in 2000) – linked to the 1989 Basel Convention, this is a regional agreement that bans export of hazardous or radioactive waste to Pacific Island countries or to Antarctica.
- Stockholm Convention (ratified by NZ in 2004) – aims to eliminate or restrict the production and use of persistent organic pollutants (POPs). New Zealand has laws and regulations to control POPs and to implement the convention. Together with the Basel Convention, these create the international rules for the transboundary movement and safe management and disposal of some of the most hazardous chemicals and wastes in the world.
- Kigali Amendment to the Montreal Protocol (ratified by NZ in 2016) – to protect the ozone layer by phasing out the production and consumption of numerous substances. The Kigali Amendment is to phase down the use of hydroflurocarbons (HFCs) worldwide.
- Paris Agreement (ratified by NZ in 2016) – global agreement on climate change.
- Minamata Convention – to protect human health and the environment from the harmful effects of exposure to mercury. New Zealand is yet to ratify the convention and central government recently consulted on a new set of regulations to do so.

New Zealand also became a signatory of the United Nation's Sustainable Development Goals in 2015. Of the 17 Goals, three have relevance to waste management and minimisation: Goal 11: Make Cities and human settlements inclusive, safe, resilient, and sustainable; Goal 12 ensure sustainable consumption and production patterns; and Goal 13 take urgent action to combat climate change and its impacts.

Additionally, the Government is currently working with other United Nation member states on negotiating a global agreement to eliminate plastic pollution. The NZ delegation has attended Intergovernmental Negotiation Committee meetings in 2022 and 2023, and a 'Global Plastics Treaty' is expected to conclude by the end of 2024.

Appendix D: Review of progress against the 2019 Waste Plan

Objectives	Policies	Methods	Summary of progress to date
Goal 1: Avoid the creation of waste			
Objective 1 Our community's culture makes waste avoidance and reduction the actions of choice	Policy 1.1 The Councils will engage with everyone to create positive change	Method 1.1.1 The Councils will develop, implement and promote activities, events and programmes that engage the community in waste reduction, directed by the Councils' waste reduction priorities. Method 1.1.2 The Councils will develop strategies and resources to support waste avoidance and minimisation at events and implement and monitor them as part of a programme to engage the community in positive change. Method 1.1.3 The Councils will promote the reuse of materials ahead of the unnecessary consumption of natural resources. Method 1.1.4 The Councils will promote community-led reuse opportunities, ideas and innovation through Council communication channels. Method 1.1.5 The Councils will continue to promote reduction of food waste and encourage home composting.	Ongoing implementation, for example: • Waste minimisation officers employed. • Ongoing support for community waste minimisation initiatives and events. • Regular community engagement through social media • Engagement in schools through Enviroschools
	Policy 1.2 The Councils will take a leadership role in demonstrating waste reduction	Method 1.2.1 The Councils will lead positive change through their own activities within and outside their organisations, which could include: • improving waste reduction at Council facilities • standardising waste reduction at all Council events • incorporating waste reduction requirements into the Councils' procurement processes, particularly for contracts for capital works Method 1.2.2 The Councils will investigate and may jointly or individually employ Council officers to research, design, deliver and evaluate	• Rolling out of waste minimisation plans to individual Council venues. • Trial of public recycling stations at Council venues (progress halted by Omicron and other priorities). • Construction and demolition diversion initiatives.

Objectives	Policies	Methods	Summary of progress to date
		programmes for waste prevention, pollution prevention and efficiency promotion	• Waste minimisation as a factor in capital works tenders. • Mandatory waste minimisation at Council-run events. • Internal sustainability group introducing activities such as composting handtowels.
	Policy 1.3 The Councils will empower and enable the community to avoid or reduce waste at source and encourage the wise use of resources	Method 1.3.1 The Councils will support community-led projects that reduce waste at source and encourage the wise use of resources, which could include fund-matching or other financial support of programmes. Method 1.3.2 The Councils will provide tools to the community to assist in the delivery of community-led initiatives and programmes. Method 1.3.3 The Councils will investigate and may support the delivery of activities by commercial or community groups that support reuse of products, using the waste hierarchy to prioritise actions.	• Both Councils are enabling community-led waste minimisation through grants and subsidies.
	Policy 1.4 The Councill will prioritise their support of activities to those that avoid or reduce waste and maximise the value of diverted material	Method 1.4.1 The Councils will consider including waste avoidance, waste reduction and waste reuse in the development of project business plans.	• Construction and demolition diversion initiatives. • Waste minimisation as a factor in capital works tenders

Objectives	Policies	Methods	Summary of progress to date
Objective 2 Members of our community work together collaboratively to avoid the creation of waste	Policy 2.1 The Councils will actively look for, and act on, opportunities to improve waste reduction outcomes through collaboration and advocacy	Method 2.1.1 The Councils will take a collaborative approach with each other where this best supports the goals of this Plan. Method 2.1.2 The Councils will engage and work collaboratively to reduce waste with: • our community, in partnership • Iwi and Iwi organisations • the not-for-profit and voluntary sector • commercial businesses and business organisations • other Councils and sector groups • central government and the public sector Method 2.1.3 The Councils will engage with central government to advocate for leadership in waste reduction, including: • product stewardship at a national level, including programmes such as container deposit schemes. • greater controls of clean fills and other disposal facilities that are not municipal landfills. • considering regulating for the avoidance of waste, for example to avoid single-use plastic • improved data collection Method 2.1.4 The Councils will regularly meet with stakeholders and interested parties to allow a common understanding of priorities and values, share information and build a platform for collaborative change.	Nelson City Council and Tasman District Council actively collaborate on identifying waste minimisation priorities and developing and delivering collaborative engagement programmes as appropriate including: • Engaging with community: • Engagement with building sector • Engaging and advocating to Central Government

Objectives	Policies	Methods	Summary of progress to date
Goal 2 Improve the efficiency of resource use			
Objective 3 Our communities have access to good information on the efficiency of resource use.	Policy 3.1 The Councils will monitor, measure and report annually on progress towards the efficiency of resource use and the effectiveness of services	Method 3.1.1 The Councils will monitor waste and diverted material streams using information sourced from Council services and from commercial and not-for-profit services where available. Method 3.1.2 The Councils will review the questions in their community surveys to provide a better understanding of how residents view waste management and minimisation services, and to improve the effectiveness of programmes and services. Method 3.1.3 The Councils will review New Zealand data guidelines and incorporate these requirements into existing data collection systems. Method 3.1.4 The Councils will investigate and may implement improvements to waste data collection software and systems at landfill, transfer station and resource recovery centres. Method 3.1.5 The Councils will investigate and may implement methods to collect waste and diverted material data from commercial and not-for-profit operators, and this may include the use of a waste by-law.	• There are opportunities to improve how data is collected and reported with the Nelson Tasman Regional Landfill Business Unit.
Objective 4 Our community can easily use a wide range of services to divert material away from landfill	Policy 4.1 The Councils will provide and promote waste minimisation services	Method 4.1.1 The Councils will continue to provide a kerbside recycling service to most urban and rural properties and will continue to upgrade and improve the materials recovery facility to accommodate demand. Method 4.1.2 The Councils will continue to provide drop-off recycling services at transfer stations, resource recovery centres and public places and expand these when needed. Method 4.1.3 The Councils will continue to provide green waste drop-off	• New resources such as video on what happens to recycling introduced. • currently investigating joint MRF. • Improved diversion opportunities from Richmond RRC underway with Habitat for Humanity (not sales).

Objectives	Policies	Methods	Summary of progress to date
		services at transfer stations and resource recovery centres when these services are not provided by other local providers. Method 4.1.4 The Councils will investigate and may implement the joint management and operation of council-owned resource recovery facilities.	• Tasman District Council has engaged an FTE to encourage customers to divert to reuse shop at Tākaka RRC – cost effective strategy. • Wekapecker second hand shop.
	Policy 4.2 The Councils will consider waste minimisation and management services as components of a circular economy by integrating Council services with the commercial and not-for-profit sector	Method 4.2.1 The Councils will work with organisations and businesses across the community to provide waste minimisation services in areas where there are no such services provided by the Councils and may provide financial or other support to these services where they support the objectives of this Plan. Method 4.2.2 The Councils will investigate and may support existing and new food diversion programmes for commercial food waste and the reduction of household food waste through community programmes. Method 4.2.3 The Councils will work with commercial operators and investigate whether existing commercial facilities and services have the capacity to process more recyclable material including glass, plastic and construction and demolition materials. Method 4.2.4 The Councils will investigate and may support the expansion of e-waste recycling services in the region. Method 4.2.5 The Councils will investigate and may support rural waste minimisation initiatives in the region. Method 4.2.6 The Councils will investigate and may support the development of markets for reuse or recycling of recovered construction and demolition materials, including waste exchanges.	• Nelson City Council – food waste collection trial, with domestic kerbside collection included in LTP 2021-31 • e-waste subsidy, compost subsidy supporting commercial operators. • Supporting NEC to get MfE grant • Battery collection spots • Grants

Objectives	Policies	Methods	Summary of progress to date
Objective 5 The proportion of material diverted from landfill will increase over time and the quality and range of diverted material will improve	Policy 5.1 The Councils will increase the diversion of material through promoting separation at source, and improved collection, storage and handling of diverted material	Method 5.1.1 The Councils will investigate the types and sources of paper and packaging waste currently being sent to landfill and may support options to improve diversion of this material. Method 5.1.2 The Councils will continue to investigate and may expand of the range and quantity of recyclables collected through kerbside collection, resource recovery centres and refuse transfer stations. Method 5.1.3 The Councils will investigate the provision of future kerbside services before establishing future services. This review would include the range of materials collected, frequency and method of collection and alignment with the commercial services. Method 5.1.4 The Councils will investigate and may provide additional capacity in the region for receiving, collecting and sorting recycling. Options to consider would include the range of materials (including construction and demolition materials), location and ownership of facilities. Method 5.1.5 The Councils will review options and may fund or provide support for the supply of organic collection and processing facilities and services in the region.	• SWAP analysis 16 May, plus 2nd audit of MRF • Improved C&D diversion underway, subject to finalised funding • Organic collection trialled in Nelson - likely to become regional subject to new legislation requiring domestic food waste collection
	Policy 5.2 The Councils improve the quality of diverted material	Method 5.2.1 The Councils will investigate and implement methods to encourage good recycling practices, reduce contamination, manage exposure to commodity price risks and grow the total percentage of waste diverted from landfill with existing services.	• Education campaign on reducing kerbside contamination as highlighted by 2022 Kantar survey
Objective 6 Our community will actively support and encourage product stewardship	Policy 6.1 The Councils will actively seek opportunities to grow product stewardship	Method 6.1.1 The Councils will investigate and may support product stewardship programmes in their areas. Method 6.1.2 The Councils will engage with central government to advocate for product stewardship at a national level, including programmes such as container deposit schemes.	• Advocating to Central Govt • Engagement with soft plastics

Objectives	Policies	Methods	Summary of progress to date
Goal 3 Reduce the harmful effects of waste			
Objective 7 Our community can easily access and use services for the safe disposal of waste	Policy 7.1 The Councils will continue to maintain ownership of their waste infrastructure and provide leadership in the provision of waste management services	Method 7.1.1 Tasman District Council will provide a kerbside refuse bag collection through the kerbside collection contract in areas provided within the kerbside service area. Method 7.1.2 Nelson City Council will facilitate refuse collection through use of private service providers. Method 7.1.3 The Councils will continue to jointly own and manage the Eves Valley and York Valley landfills through the Nelson Tasman Regional Landfill Business Unit	• Waste services contracts in place and recently reviewed through s17A
	Policy 7.2 The Councils will provide facilities and services to assist with household hazardous waste management and facilitate the provision of hazardous waste management services by others where this is more appropriate	Method 7.2.1 The Councils will provide hazardous waste drop-off facilities at transfer stations and resource recovery centres, where. practicable, for household hazardous waste and agrichemicals to an extent that they are affordable and complement national schemes. or services Method 7.2.2 The Councils will investigate and may support options for providing additional services and facilities for hazardous or semi-hazardous wastes. These options will include provision of services and facilities by the Councils, support or expansion of existing. commercial services and provision of services in rural areas	• Free battery drop-off trials ongoing • Tasman District Council - 5 RRCs have facilities for hazardous waste drop off • Nelson City Council - increased its capacity to manage hazardous waste
	Policy 7.3 The Councils will maintain a charging system for waste collection and disposal that provides cost recovery, and incentives and disincentives to achieve the goals of the Waste	Method 7.3.1 The Councils will carry out financial reviews of disposal charges to encourage the separation and diversion of materials. as alternatives to waste disposal to landfill.	• Annual reviews of fees.

Objectives	Policies	Methods	Summary of progress to date
	Plan		
	Policy 7.4 The Councils may implement services that cannot be funded by user charges where a public good outcome can be demonstrated	Method 7.4.1 The Councils may subsidise the disposal and treatment of waste that cannot be funded by user charges.	• Initiatives have included subsidising green waste disposal, paint, scrap metal, recycling, e-cycling etc
	Policy 7.5 The Councils will jointly make the most effective and efficient use of regional landfill space, through the RLBU	Method 7.5.1 The Councils, through the Regional Landfill Business Unit, will investigate options to provide on-going landfill capacity in the region, including further development at Eves Valley and York Valley landfills and consents for development of facilities. Method 7.5.2 The Councils will investigate options for pre-processing and diversion of materials prior to landfill in association with landfill capacity investigations. Method 7.5.3 The Councils will investigate options other than a municipal landfill to provide disposal of contaminated soil in the region, including consideration of naturally high background mineral levels in regional soils and development of contaminated soil guidance for landowners.	• Currently working on developing options for future landfills and working on increasing the capacity at York Valley Gully 1 to enable it to continue operating to the end of the current consent period in 2034. • NTRLBU has order a weighbridge for the Eves Valley Landfill and is implementing changes to the Eves Valley access to allow diversion of contaminated soil from York Valley to Eves Valley Stage 2.
	Policy 7.6 The Councils will, through the RLBU, ensure jointly that there is landfill capacity in for the safe disposal of waste	Method 7.6.1 The Councils, through the Regional Landfill Business Unit, will continue to provide a landfill disposal service for approved waste from Nelson and Tasman. Method 7.6.2 The Councils, through the Regional Landfill Business Unit, will manage the landfill service such that consented landfill airspace is monitored and maintained to ensure that, at any time, there is at least five years consented airspace and the ground has been prepared so that waste can be placed without further construction for the next two years.	

Objectives	Policies	Methods	Summary of progress to date
Objective 8 We manage our waste management services to avoid or mitigate any adverse public health, cultural and environmental effects	Policy 8.1 The Councils will ensure that solid waste services, facilities and closed landfills have effective management plans and are managed according to these plans	Method 8.1.1 The Councils will annually review compliance with resource consents for operational and closed waste facilities.	• Improved processes for resource consent compliance testing and reporting have been initiated
	Policy 8.2 The Councils will consider the use of other measures or instruments, including but not limited to by-laws and/or Resource Management Plans to manage the adverse public health, cultural and environmental effects of waste where these effects are not covered by currently available provisions	Method 8.2.1 The Councils will investigate and may propose solid waste by-laws to address issues identified in the Joint Waste Assessment as being suitably addressed by a by-law, including the licensing of persons providing waste and diverted material services, regulating the disposal of materials to landfill and clean fill and the collection of data. Method 8.2.2 Tasman District Council will consider a rule change in its Resource Management Plan (TRMP) for private clean fills to control the location and material accepted at clean fill sites, and to collect data.	• Considering whether a bylaw will address any issues – timing will be after any new requirements/expectations have been set by central government
Objective 9 Waste management and minimisation services and all related activities are safe to operate and use	Policy 9.1 The Councils will ensure good health and safety practices are in place for all waste management and minimisation activities	Method 9.1.1 The councils will review and change, where appropriate, the health and safety practices followed for any existing waste management and minimisation initiatives where concerns are raised. Method 9.1.2 The councils will investigate and review health and safety impacts for all methods proposed to improve waste management and minimisation before implementing new initiatives.	• Contractor H&S plans required. • Strong H&S focus at RRCs, improving safety, use of cameras etc. • No longer collections on SH60. • No e-waste into the hoppers at Nelson RRC • Battery campaign. Eliminating Li fires.

Appendix E: Review of progress against the 2019 Waste Reduction Indicators

Waste Reduction Indicator	Activity / Methods	Frequency	2017/18 Baseline	2030 Target	2022/2023 Progress
Indicator 1A All waste to Class 1 landfills	The quantity of waste generated within the Nelson-Tasman region that is disposed of at Class 1 landfill (kg per capita per annum for the usually resident population)	Annually	741kg per person	Reduce	658 kg per person
Indicator 1B Waste to Class 1 landfills - excluding special wastes	The quantity of waste, excluding special wastes, generated within the Nelson-Tasman region that is disposed of at Class 1 landfill. (kg per capita per annum for the usually resident population)	Annually	619 kg per person	Less than 557kg per person by June 2030	576 kg per person
Indicator 2A Domestic kerbside waste disposal rate	The quantity of domestic kerbside waste collected by the Councils, a contractor on behalf of the council, or by private waste collectors (through kerbside or similar collections) from residential premises. (kg per capita per annum for the usually resident population of that district that is served by these collections)	Annually	Estimated 200 kg per person.	Less than 180 kg per person by June 2030	Not measured.
Indicator 2B Domestic waste disposal rate	The quantity of domestic waste collected from residential premises or similar waste disposed of by other means by the householder. (kg per capita per annum for the usually resident population of that districts)	Annually	Estimated 250 kg per person	Less than 225 kg per person by June 2030	Not measured.
Indicator 3A Domestic kerbside	The quantity of domestic kerbside recycling collected by the Councils or by	Annually	Nelson 67 kg per person	Monitor	7880 tonnes for Nelson-

Waste Reduction Indicator	Activity / Methods	Frequency	2017/18 Baseline	2030 Target	2022/2023 Progress
recycling recovery rate	private service providers from residential premises. (kg per capita per annum for the usually resident population of that district that has access to kerbside recycling collections, less contamination)		Tasman 74 kg per person		Tasman region 68.5 kg/person
Indicator 3B Domestic recycling recovery rate	The quantity of domestic recycling collected from residential premises by the Councils or private service providers, or similar materials generated by domestic activity and collected by whatever means by the Councils or private service providers. (kg per capita per annum for the usually resident population of that district, less contamination)	Annually	Nelson 75 kg per person Tasman 93 kg per person	Monitor	Not measured
Indicator 3C Domestic kerbside recycling contamination rate	The quantity of domestic kerbside recycling collected from residential premises by the Councils or by private service providers that is disposed of to landfill rather than becoming a diverted material. (quantity disposed to landfill divided by total collected - %)	Annually	4.6%	Less than 5%	Approximately 8%
Total waste diversion rate	The quantity of total material avoided or diverted by the Councils through Council services. (kg per capita per annum for the usually resident population of that district)	Annually	Nelson 105kg per person Tasman 124kg per person	Monitor	Refer Table 6.
The composition of waste to landfill	Composition surveys according to the Solid Waste Analysis Protocol	Periodically	Last measured in 2012	Monitor	Refer Table 5. Measured February and December 2023
Consumer and business	Customer and business surveys on waste	Periodically	Not yet measured	Monitor	Not measured

Waste Reduction Indicator	Activity / Methods	Frequency	2017/18 Baseline	2030 Target	2022/2023 Progress
attitudes and activities	minimisation attitudes and participation in waste minimisation activities				
Number of households that carry out home composting	Survey to assess number of households doing home composting	Periodically	Nelson 62% Tasman – not yet measured	Increase	Not measured
Level of illegal dumping	To assess whether or not implementation of the Waste Plan is causing an increase in illegal dumping and fly tipping behaviour.	Annually	Nelson: $15,500, 210 requests (2018/19) Tasman: $30,900, approx. 150 requests (2018/19)	No increase	Refer to Section 6.5
Customer satisfaction at sites and with kerbside services.	Customer surveys	Periodically		Monitor	June 2023 Resident Survey (Tasman District Council)

Appendix F: Current Waste Services Contracts

Tasman District Council Waste Contracts

Service	Contractor	Contract Term	Scope
Solid Waste Services *Covers approximate 89% of the district population.*	Smart Environmental	2015-2025	• Supply, distribution and maintenance of Receptacles. • Weekly collection of kerbside Refuse (Council bags) and transport to RRCs. • 2-weekly collection of kerbside recyclables (bins) and transport to MRF at Richmond RRC. • Construction, operation and maintenance of a MRF plant at the Richmond RRC. • Operation of Resource Recovery Centres at Richmond, Tākaka, Mariri and Collingwood. • Collection of Recyclables from Public Recycling Bins and transport to MRF at Richmond RRC.
Waste Transport Services	Fulton Hogan	2017-2025	• Transport of Refuse from RRCs at Richmond, Mariri, Tākaka and Murchison to the Council's Nominated Facility (York Valley with Eve's Valley as Alternative). • Transport of Green waste from Mariri and Tākaka RRCs to Council's Nominated Green waste processing supplier's facility processing supplier's facility (Waimea West).
Murchison RRC operation	Fulton Hogan	2019-2025	• Operation and maintenance of Murchison RRC. • Loading of Residual Waste into Council provided open top Huka bins. • Loading of Green waste into Council provided open top Huka bins. • Operation of an on-site re-use shop.
Litter and Compactor Bin Clearing		New contract July 2021	• Emptying of Litter bins and Compactor Bins in various Tasman District Townships. • Transport of Waste to RRC.
Green waste	Green Waste to Zero		• Drop off facility.
	Wholesale Landscapes		• Processing of green waste at private facility.

Nelson City Council Waste Contracts

Service	Contractor	Scope
Kerbside Collections (recyclables)	Nelmac (CCO)	• Supply, distribution and maintenance of Receptacles (recycling). • Collection of kerbside recyclables and transport to MRF at Richmond RRC.
Waste Transport Services	Fulton Hogan	• Pascoe Street Transfer Station to York Valley Landfill.
Pascoe Street Transfer Station operation	Fulton Hogan	• Operation and maintenance of Pascoe Street RRC hoppers and freight.
Green waste	Green Waste to Zero	• Drop off and processing.
Street litter bins	EnviroNZ	• Emptying of street litter bins including solar compactor bins.
Hazardous collections	EnviroNz	• Battery and other hazardous materials collections.

Nelson-Tasman Joint Contracts

Service	Contractor	Contract Term	Scope
Landfill Operations *Shared service through the Nelson-Tasman Regional Landfill Business Unit*	Downer	Started 1 July 2018 (5+5)	• Operates a regional landfill at York Valley, in Nelson, and manages the Eves Valley Landfill, near Brightwater, which closed in 2017. • Managed through the NTJLBU. • User pays.

Appendix G: Private Waste Services providers

Name	Where they operate
Smart Environmental	Tasman District, excluding Murchison and Motueka Valley.
Nelmac	Nelson City, Richmond Waste Management Nelson City, Richmond, Brightwater, Wakefield, Mapua, Motueka.
Envirowaste	Nelson City, Richmond, Brightwater, Wakefield, Mapua.
Can Plan	Nelson City, Richmond, Brightwater, Wakefield, Mapua, Motueka.
Motueka Bin Hire	Motueka, Motueka Valley, Riwaka, Kaiteriteri.
Bingo Skip Hire	Motueka, Tapawera, Motueka Valley, Mapua, to top of Tākaka Hill.
Scotts Bin Hire	Motueka, Tapawera, Motueka Valley, Mapua, Moutere Valley.
Golden Bay Rubbish Collection	Golden Bay (Tākaka Hill to Pakawau).
Golden Bay Skip Hire	Golden Bay (Tākaka Hill to Pakawau).
Town and Around Rubbish	Murchison and surrounding areas.
Waste Management NZ	Nelson City and Tasman District.

Appendix H: Diversion Service Providers

The list below provides information on diversion service providers it the Nelson-Tasman Region. These are generally businesses and organisations specifically established for waste diversion purposes. This list is not exhaustive and there may be other service providers that have established in the region since it was compiled. It is also noted that there are numerous other pathways through which a wide range of goods are repaired, reused, on-sold, or donated, and these all have a significant contribution to materials being kept in use within the community and economy, as well as avoiding and diverting waste from landfill.

Name/Owner	Key service/waste stream
Agrecovery	Agricultural chemicals and drums. Storage and collection of agricultural/farm plastics.
BinGo	Skip Hire Green waste and hardfill.
Bens Oil, ERS, JBL Environmental, EnviroNZ, and Nelson Marlborough Waste	Commercial quantities of oil and chemicals, oil drums ERS only – Workshop waste e.g.. oil filters, oily rags, coolant, brake fluid etc.
Baby on the Move (3R Seatsmart)	Child car seats.
Can Plan	Commercial & household collection of waste and recyclables. Household green waste collection. Recyclables include paper, cardboard, plastics, tins, cans, glass, plasterboard, hardfill/concrete, metal, topsoil and untreated timber.
Cartridge Universe	Refill cartridges and recycle plastic casing.
Councils resource recovery centres	Appliances, automotive and lead acid batteries, batteries, cardboard, metal cans, scrap metal, garden waste, glass bottles/jars, plastics (1,2, 5), lightbulbs. At some centres - reusable goods, reusable timber lengths, scrap metal, oil drums, paint wooden pallets, carpet and tyres (cut and disposed), agrichemical containers (triple rinsed).
Community Compost	Household/business food scraps and garden wastes.
Direct Fats & Oils (aka FATMAN)	Collection service for used cooking oils & fats.
EnviroNZ	Commercial collections cardboard/paper, plastics (1-7), glass, tins/cans, plasterboard, untreated timber, metal, soft plastics, polystyrene, topsoil, concrete/hardfill and green waste.
Fisher and Paykel	Appliances.
Oji Fibre solutions	Cardboard/paper, glass, aluminium and plastics.
Grassroots Recycling	'Hard to recycle' packaging (e.g. liquid paperboard/'Tetrapak', lids/caps).
Green Waste To Zero	Plasterboard, green waste and topsoil (commercial composting).
Habitat for Humanity	Saleable household items including furniture and clothing, clean recycling, timber/wood, electronic waste, whiteware and appliances.
Helping Hands	Commercial recycling service in Golden Bay – paper, cardboard, tins/cans, glass, green waste, metal, plasterboard and untreated timber.
Helping Families	Reusable items.
Interwaste	Commercial collection of dental amalgam, fluorescent lightbulbs, x-ray

Name/Owner	Key service/waste stream
	and photographic film and fixer fluids.
Hills Cleaning Service, Online Security Services, Waste Management	Security paper destruction and recycling.
Koha shed	Reusable items.
Lazers Edge	Printer repairs.
Motueka Appliance	Whiteware - service and Repair.
Motueka Bin Hire	Green waste, topsoil, hardfill, metal and untreated timber.
Nelson Environment Centre - Ecoland	Reusable items, electronic waste, toner, batteries and fluorescent/low energy bulbs.
Nelson Recycling Centre	Reusable items.
Norwest Demo and Recycled Timber	Building deconstruction services, including recovery of reusable timbers.
Nelmac	Household kerbside recycling. Collection of commercial recyclable materials e.g. aluminium and steel cans, paper and cardboard, hard plastics, glass Commercial and residential green waste collection.
Op shops (throughout region)	Reusable items.
Plasback	Agricultural/farm plastics, nets and bags – collection/recycling service.
Resene Colorshop	Commercial and domestic paint and containers.
Restore	Reusable items.
Scrap metal dealers	Drop off and collection of scrap metal.
Sims Metal	Drop off and collection of scrap metal.
Smart Environmental	Collection commercial recyclable materials e.g. aluminium and steel cans, paper and cardboard, plastics), glass.
TechCollect	Partners with Noel Leeming and The Warehouse stores to provide drop-off locations for e-waste.
Victory Community Kai Shed	Food Rescue.
Vodafone, Spark, 2Degrees	Mobile phones, batteries and chargers.
Waste Management NZ	Cardboard/paper, soft plastics, green waste, untreated wood waste, glass, concrete/hardfill, metal, soft plastics and topsoil.
Waste No More	Event waste minimisation services.
Weka Pecka	Saleable household items including furniture and clothing, clean recycling, timber/wood, electronic waste, whiteware and appliance.
Wholesale Landscapes (Azwoods)	Untreated wood waste, green waste, hardfill, concrete, topsoil and pallets.
5RSolutions	Plate and laminated glass. Double glazing units.

Appendix I: Class 2 to 5 landfills

The Ministry for the Environment (MfE) receives waste tonnage information for the following Class 2 to 5 landfill sites within the Nelson-Tasman Region. Sites are a mix of public and private operations and in some cases are not publicly advertised or accessible. Note, there are no know Class 2 landfills in the Region.

Name of Class 3/4 – Managed or Controlled Fill Disposal Facility	Latitude	Longitude
Blackbyre Quarry	-41.32178°	173.1294 9°
Nelson - Challies Island - 3/4	-41.33222°	173.1193 4°
Nelson - Waimea Bermland - 3/4	-41.33092	173.1242 7°
Nelson - Appleby 3/4	-41.31862°	173.1289 5°

Name of Class 5 - Cleanfill Disposal Facility	Latitude	Longitude
105 Douglas Road	-41.10644°	172.9705 7°
467 Suffolk Road	-41.33948°	173.2274 0°
Cable Bay Landfill	-41.00000°	173.0000 0°
Gibbons York Valley Landfill	-41.30400°	173.2800 0°
Nelson – Gowan 5	-41.71318°	172.5625 1°
Rototai Cleanfill	-40.83700°	172.8366 0°

Appendix J: Schedule of closed landfill sites

The Councils monitor the following closed landfill sites.

Nelson	Tasman
• 79 Cable Bay Rd (Private landfill) • Ngawhatu (Old Hospital) • Atawhai Landfill (North Road Landfill) • Top of York (Private landfill)	• Appleby • Old Wharf Road • Pah Point • Cobb Valley (Ernies Flat) • Richmond resource recovery centre (Tasman) • Collingwood • Rototai • Hoult Valley • St Arnaud • Kaiteriteri • Tapawera • Lodders Lane • Tasman/Kina • Mariri resource recovery centre • Tasman/Highway • Mariri old • Murchison resource recovery centre • Upper Moutere Murchison • Upper Tākaka • Ngatimoti • Waiwhero

Appendix K: Known product stewardship schemes in New Zealand.

Product Stewardship Scheme	Service/Key waste stream
Agrecovery	Provides NZ farmers and growers with programmes for container recycling, drum recovery and collection of unwanted and/or expired chemicals.
Dell New Zealand	Take-back of Dell branded computer equipment.
Envirocon	Waste concrete (including potentially harmful liquids) is diverted from landfill and upcycled into value-added precast concrete products for the Interbloc Modular Wall System.
Exide Technologies	Take-back vehicle batteries.
Fiji Xerox Zero Landfill Scheme	Fuji Xerox remanufacture, reuse and/or recycle used equipment such as printers, photocopiers and printing consumables. Parts that cannot be reused are recycled.
Fonterra Milk in Schools recycling programme	Milk cartons (including straw and straw wrapper) are collected from schools participating in the programme. They are broken down into components (paper, aluminium foil and plastic) and recycled into roof tiles, books and paper.
Glass Packaging Forum	The forum connects businesses that sell glass-packaged consumer goods with those that collect and recycle glass. This helps to improve the quality and quantity of glass recycled. The aim is zero container glass to landfill.
HP New Zealand	Take-back of HP/Compaq branded computer equipment.
Interface ReEntry Programme	The scheme recycles used Interface carpet tiles into new carpet tiles and other products. PVC backed carpet tiles beyond their usable life are sent back to the original manufacturer in the US where they are stripped and remanufactured.
Plasback	Plasback collects and recycles agricultural plastics such as bale and silage wrap, and crop bags. The silage plastic is recycled into Tuffboard, a plywood replacement sheet that has many uses on farms.
Refrigerant recovery scheme	The Trust for the Destruction of Synthetic Refrigerants, also known as RECOVERY, collects and responsibly disposes of refrigerants used in the refrigeration and air conditioning industries.
Resene Paintwise	Take-back of Resene branded paint and paint receptacles. User pays for non-Resene branded paint and paint receptacles.
RE: Mobile	The programme offers e-waste recycling for mobile phones and accessories. Unwanted mobile phones still in working order are sold for refurbishment and resale overseas while others are recycled. Proceeds from the scheme are donated to Sustainable Coastlines, an organisation which

Product Stewardship Scheme	Service/Key waste stream
	plants trees along waterways to restore habitats for native animals, reduce sediment and improve water quality.
Recovery Oil Saves the Environment (ROSE)	The used-oil recovery programme enables users, oil producers and regulators to responsibly collect, transport, use and dispose of used oil.
Soft Plastic Recycling Scheme	Soft plastic packaging is collected from participating stores and delivered to two NZ processors – Future Post in Waiuku and Second Life Plastics in Levin. The soft plastics are made into new products such as plastic fence posts, cable covers & garden edging.
Sharp Comprehensive Recycling and Waste Reduction Scheme	Sharp New Zealand aims to reuse and recycle 100% of its packaging materials, electronic products, equipment and obsolete and used parts.

Appendix L: Additional information on other diverted materials

Waste/material	Description of diversion pathway	Quantity data
Scrap Metal – including non-ferrous and ferrous metals, such as car parts, car batteries, construction materials, appliances etc	Relies on separation of scrap metal at waste/resource recovery facilities, or separate drop-off to commercial operators. There are several scrap metal yards in the region, the largest operation is Sims Metal in Nelson. Ferrous and non-ferrous metals are predominately exported overseas.	In the order of 12,000 tonnes per year was reported to be processed in the previous Waste Assessment in 2017, including material from Marlborough and the West Coast.
C&D Materials – timber, aggregate, metals, flat glass, plasterboard, pipe, fittings	Relies on source-separation of C&D materials, commercial collections by waste operators, and drop-off services at waste/resource recovery facilities. Limited end-markets exist in the region however for some recovered materials (e.g. treated timber, crushed concrete).	No complete data available for range of C&D materials. Initial results from a diversion trial of C&D waste at Richmond RRC between August and November 2023 indicated in the order of 40% of waste from construction sites has the potential to be diverted to existing or emerging markets.
Agrecovery (farm chemicals, and containers)	Accredited product stewardship schemes for NZ farmers and growers to recover agri-chemical containers/drums unwanted and/or expired chemicals. Drop-off available at certain RRCs and other independent sites in region.	Approximately 14 tonnes in 2022/23 (based on Agrecovery reported data for region, including material from RRCs).
Plasback (farm plastics)	Plasback scheme enables the collection of sileage wrap and other farm plastics from customers on a user-pays basis. Material is mostly exported for reprocessing.	Approximately 30 tonnes from Jan to Oct 2023 across the region (based on reported data from Plasback).
E-waste	Various initiatives already exist in the region including e-waste collection at Nelson Environment Centre (supported by councils); TechCollect partnership with Noel	No complete data available.

Waste/material	Description of diversion pathway	Quantity data
	Leaming/Warehouse for e-waste; Re: Mobile drop-of locations for mobile phones; and battery disposal bins enabled by councils. TechCollect is the organisation responsible for designing a national regulated product stewardship scheme for e-waste (in development).	
Soft-Plastics – households	Collected at drop-off locations at participating retailers and transported to Future Post in Blenheim for use in the manufacture of fence posts.	Initiative stopped in the South Island in 2018 and restarted in Nelson-Tasman region in 2023. Quantity data not yet available.
Resene Paintwise	Take-back of paint and paint receptacles. User pays for non-Resene branded paint and paint receptacles.	No complete data available. WRC/RRC data – estimated to approximately 20 tonnes/yr.
Expanded Polystyrene	Air-pop/Expol take-back scheme in partnership with Mitre10 enables drop-off at one location in Nelson and can enable return of polystyrene off-cuts used at construction sites. Also local polystyrene manufacturer in Hope accepts some polystyrene for reprocessing.	No regional data available.
Cool-safe synthetic refrigerant scheme	Cool-Safe which promotes the destruction of refrigerants (potent greenhouse gases) used in the refrigeration/AC equipment. Once degassed, appliance equipment can also be diverted as scrap metal.	No regional data available.
Recovery Oil Saves the Environment (ROSE)	The used-oil recovery programme enables users, oil producers and regulators to responsibly collect, transport, use and dispose of used engine oil. Used oil can be dropped off at participating retailers and collected/transported and 121 processed by operators out of the region.	No complete data available. WRC/RRC data – estimated to be less than 20 tonnes/yr.

Waste/material	Description of diversion pathway	Quantity data
SeatSmart	SeatSmart provides consumers with a user-pays nationwide recycling programme to recover end-of-life child car seats. Approximately 75% of seat materials are recovered for recycling or repurposing. Nelson-Tasman councils provide a subsidy to consumers who return used child car seats to participating retailer, Baby on the Move in Nelson.	244 car seats from Nelson-Tasman for the year to June 2023, representing just over 1 tonne/year (based on information provided by scheme manager, 3R).
Textiles – clothing	Collection bins placed on private/public land – owned and operated by Save Mart Ltd. Clothing from these bins are redistributed to charity shops in New Zealand, reprocessed into rags, or exported.	No regional data available.
Various other packaging/hard-to-recycle items	Small scale community-led or business-led initiatives for packaging materials, including liquid paperboard, toothpaste tubes, plastic and metal lids, contact lens packaging, hearing aid batteries etc. Materials are typically collected via drop-off locations and reprocessed out of the region or exported. Some of these initiatives rely on the involvement of US-based company Terracycle.	No regional data available.