West Coast Regional Waste Assessment

Prepared for: Buller District Council, Grey District Council, and Westland District Council

Prepared by: Tonkin & Taylor Ltd

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Contact details:

Website: www.tonkintaylor.co.nz

Address: Level 3, 161 Victoria Street, Wellington, 6011

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:	Report prepared by:	Authorised for Tonkin & Taylor Ltd by:
.....	.....	.....
Adrienne Kozlowski	Hannah Kelly	Chris Purchas
Resource Recovery Consultant	Project Manager	Project Director

Tonkin+Taylor

Executive Summary

Current situation

2022/23 waste quantities (tonnes)			
	Landfill	Recovery	Regional recovery
Transfer station	10,887	1,085	9%
Kerbside	5,375	1,794	33%

Key legislation and policy
- Waste Strategy – Te rautaki para
- Waste Minimisation Act
- Emissions Reduction Plan

What is working well?
- Enviroschools campaign
- Kerbside collections
- Access to services

What required improvement?
- Understanding of waste from tourism sector
- Regional diversion from landfill
- Organic material recovery
- Alignment in services across the region
- Consistent data collection

Where do we want to be?

Vision:
"By 2030, our enabling systems are working well, and behaviour is changing"

Goal 1
The building blocks are in place to enable change.

Goal 2
More activity is circular, and we produce less waste.

Goal 3
Emissions and other environmental indicators are improving.

How do we get there?

- Creating partnership with iwi, industry, businesses and community groups.
- Making diversion easy by investing in recovery of organic materials (food, garden and timber waste).
- Supporting circular processes (product stewardship schemes).
- Advocating central government for change to encourage circular systems (keeping materials in cycle for as long as possible).
- Continue developing our behaviour change education.
- Working on the resilience of our waste services.

Contents

1 Introduction

1.1 Purpose

This Waste Assessment establishes the planning foundations for the Waste Management and Minimisation Plan (WMMP) that will be prepared for Buller District Council (BDC), Grey District Council (GDC) and Westland District Council (WDC), referred to herein as 'the Councils.'

The Waste Assessment describes the current waste situation, sets the vision, goals, objectives, and targets for the districts, and develops options for meeting future demand. The outputs from this Waste Assessment will be summarised in the final regional WMMP.

It also positions the Councils to adequately protect public health by providing facilities for the safe recovery and disposal of waste. A statement from the Medical Officer of Heath is provided at the conclusion of this document.

This Waste Assessment and the subsequent WMMP meet each Council's obligations to evaluate and plan for waste minimisation and management in their district under the Waste Minimisation Act 2008 (WMA).

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

This Waste Assessment covers solid waste generated within the boundaries of the Councils and will take a regional approach. The focus is on materials entering the waste management system (kerbside or transfer station collection, processing, and disposal).

1.2 Waste Assessment Structure

This waste assessment has three parts:

Part 1 – Where are we now?

This covers policy and legislative context, the current waste situation including waste flows, infrastructure, services and forecast of future demand. This will be summarised in the WMMP.

Part 2 – Where do we want to be?

This includes the vision, goals, objectives, and targets for the Waste Assessment, which will form part of the WMMP.

Part 3 – How are we going to get there?

This part identifies options and assesses the suitability of each option (as required by Section 51 of the Waste Minimisation Act 2008) and includes a summary of the outcome of consultation with the Medical Officer of Health. The preferred options from the Part 3 assessment will be presented in the WMMP.

1.3 What must a WMMP address?

A WMMP must contain a summary of the Councils' objectives, policies and targets for waste management and minimisation. The plan should clearly communicate how the Councils will deliver on these objectives.

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

- Objectives and policies for achieving effective and efficient waste management and minimisation within the territorial authority's district.
- Methods for achieving effective and efficient waste management and minimisation within the territorial authority's district, including:
  - collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste management and minimisation needs (whether provided by the territorial authority or otherwise).
  - any waste management and minimisation facilities provided, or to be provided, by the territorial authority.
  - any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority.
- How implementing the plan is to be funded; and
- If the territorial authority wishes to make grants or advances of money in accordance with Section 47, the framework for doing so.
- In addition, a WMMP must have regard to the waste hierarchy, the Waste Strategy, and a Council's most recent Waste Assessment (this document).

Part 1

The Current Situation

2 New Zealand legislative context

Legislation surrounding waste management and minimisation continues to evolve in New Zealand. This section offers a summary of relevant legislation, policy and central government activity in 2024.The dark squares in Figure 2.1 are covered in detail within this section, the lighter squares are important considerations for Councils and the main elements of these legislative requirements are further detailed in Appendix A.

Figure 2.1: Relevant waste legisation, policy, and activity.

2.1 Te Rautaki Para | Waste Strategy 2023

Te Rautaki Para Waste Strategy (2023) is the Government's core policy document concerning the future direction of waste management and minimisation in New Zealand. The vision of the Waste Strategy commits New Zealand to a low-emissions, low-waste, circular economy by 2050.

The strategy includes three national targets to achieve by 2030.

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

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

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

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

- Implications from regulated product stewardship schemes.
- Data collection and reporting requirements.
- Resource recovery infrastructure network (local and national).
- Behaviour change programmes (local and national).
- Contaminated land and remediation.

The aspirations of Te Rautaki Para Waste Strategy are underpinned by several acts, including:

- Waste Minimisation Act 2008 (under review)
- Local Government Act 2002

- Hazardous Substances and New Organisms Act 1996
- Climate Change Response Act 1996
- Resource Management Act 1991 (under review)
- Litter Act 1979 (under review)

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

Section 44 of the Waste Minimisation Act requires councils to have regard to the waste strategy when preparing their WMMP.

2.2 Kerbside standardisation

Early in 2023, the Ministry for the Environment (MfE) announced a move to standardise kerbside recycling across the country as part of the workplan/priorities laid out in Te Rautaki Para. This announcement signalled:

- A **standardised set of recyclable materials** will be collected from households in urban areas (i.e., towns of 1000 people or more), this was implemented 1st February 2024.
- **Kerbside organics collections** be available to households in all urban areas by 2030.
- **Minimum standards for diverting waste from landfill** would apply to councils, with reporting requirements for private waste companies.
- Businesses would be required to separate food scraps from general waste by 2030.

The announcement was followed by a Gazette Notice released on 13 September 2023. The Gazette Notice sets out the first tranche of performance standards[1] related to standardisation of materials collected for recycling at the kerbside. The standard set of materials to be collected are:

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

As of 1 February 2024, the collection of standard materials applies to all councils that collect kerbside recycling, food scraps or food and garden organics (FOGO) from households and that include such services in their Waste Minimisation and Management Plans (WMMPs).

The notice also applies to private waste companies that collect household kerbside recycling or organic waste on behalf of councils. The notice does not apply to transfer stations, community recycling centres, other drop-off recycling schemes or private waste

[1] Standard materials for kerbside collections Notice 2023 (Notice No. 1) [2023-go4222].

companies and social enterprises that operate collections independently of councils.

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

- Ensure kerbside recycling services are provided to households in urban areas by 2027.
- Make kerbside organics collection services available to households in all urban areas by 2030.

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

The lack of clarity regarding the timing of some of these proposals creates a degree of uncertainty for councils. However, Te Rautaki Para clearly sets out a pathway towards a more circular economy.

2.3 Waste Disposal Levy Expansion

For every tonne of waste disposed to landfill, a levy is applied and collected by the Ministry for the Environment (MfE). Since 1 July 2021, the landfill waste disposal levy has been progressively increased and expanded (Figure 2.2). Government signalled further increases in the 2024 Budget with the levy on Class 1 landfills increasing to $75 by July 2027 through 3 $5 increases. The same will apply to construction and demolition fill ($45 by 2027) and managed or control fill ($20 by 2027). The waste disposal levy is equally shared between councils (city and district) and the waste minimisation fund.

The Government also announced changes to the way the waste disposal levy can be spent. Previously the funding allocated to councils was required be spent on promoting or achieving the waste minimisation activities set out in their waste management and minimisation plans.

The scope of projects which can now be funded through the Waste Disposal Levy will be expanded to include a wider range of projects supporting the environment and climate change mitigation and adaptation in addition to minimising waste. These projects can include costs associated with disposal of waste generated by an emergency such as a cyclone, and to clean up contaminated sites and landfills vulnerable to severe weather events – before they cause a problem.

Territorial authorities received waste levy refunds based on levy collected, levy refunded, and their district's population.[2] The Waste Levy distribution over the last five quarters is shown in Section 4.

The increase in the Waste Disposal Levy provides an opportunity for the region to increase investment in waste minimisation and broader environmental protection activities. However, due to the review of the Waste Minimisation Act, and projected population decline for the region, there is uncertainty on how much levy revenue will be available to the region.

[2] Territorial authorities and the waste disposal levy | Ministry for the Environment.

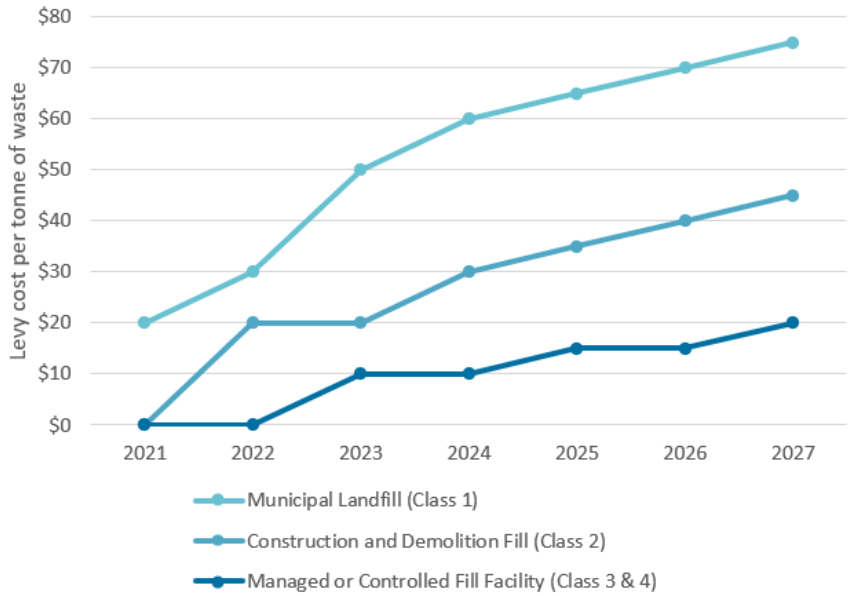

Figure 2.2: Waste Disposal Levy expansion.

2.4 Container Return Scheme

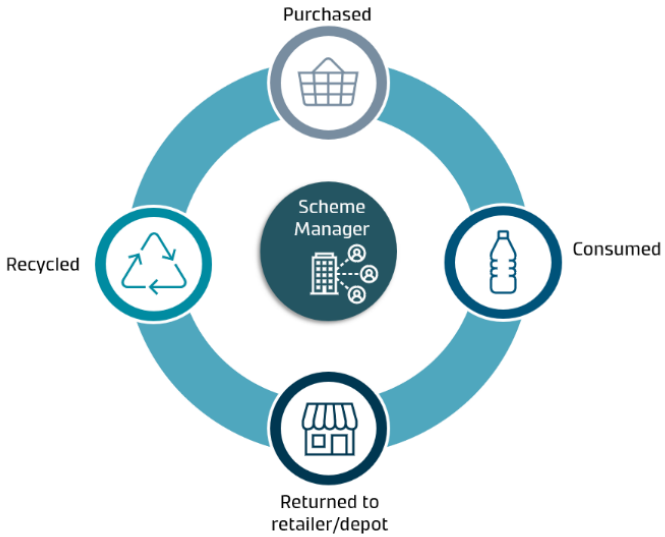

Figure 2.3: New Zealand Container Return Scheme model (figure adapted from Ministry for the Environment).

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

While the scheme has been deferred it has not been abandoned. Depending on design, any future CRS may have an impact on the

quantity of containers collected through kerbside recycling services and drop-off locations including transfer stations and may significantly increase the value of some collected materials. The current design of the deferred CRS is illustrated in Figure 2.3: New Zealand Container Return Scheme model (figure adapted from Ministry for the Environment).

2.5 Emissions Reduction Plan

In May 2022, the national **Emissions Reduction Plan (ERP)** was released. The ERP sets out the planned targets and objectives with an initial focus on the period from 2022 to 2025. The plan aims to enable a transition to a low-emissions, climate resilient future for Aotearoa New Zealand. As the first of its kind, the government is placing new requirements on councils to reduce their emissions from waste with particular focus on emissions from organic materials and landfill gas. A significant action for local government to reduce emissions is to offer a food scraps collection service by 2030 in line with the kerbside standardisation program of work.

Planning is now underway on the second emissions reduction plan. This will cover the emission budget for the years 2026 to 2030.

2.6 International Commitments

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

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

New Zealand has also joined other countries in supporting the launch of negotiations towards a new treaty to combat plastic pollution. This legally binding treaty is expected to be negotiated by the end of 2024. After negotiation, countries will go through their own treaty-making processes to determine whether they will sign up to the treaty.

2.7 Impact for West Coast

As discussed earlier in this section, Te Rautaki Para clearly sets out a pathway towards a more circular economy and the legislation surrounding waste management are likely to reflect this. The key impacts of this shift that the West Coast will need to plan for are:

- Ensuring Council is positioned to align with kerbside standardisation regulations within the timeframes outlined by MfE.
- Planning for how the increase in waste levy funding will be allocated.
- Accounting for, and future proofing, waste management infrastructure to adapt to changes in material quantities resulting from any CRS or product stewardship.

3 Our region

3.1 Our region

This Waste Assessment and the resulting WMMP have been prepared within the unique local and regional context of the West Coast. The actions and objectives identified in the Waste Assessment and WMMP reflect, intersect with, and are expressed through other planning documents. Key planning documents and other factors influencing waste management and minimisation are discussed in this section.

The West Coast region spans approximately 23,245 km² of mainly rural land.

The region is made up of three districts (Buller District, Grey District and Westland District), with three key towns: Greymouth, Westport, and Hokitika. A summary of the population spread, and expected growth, is provided in Figure 3.1.

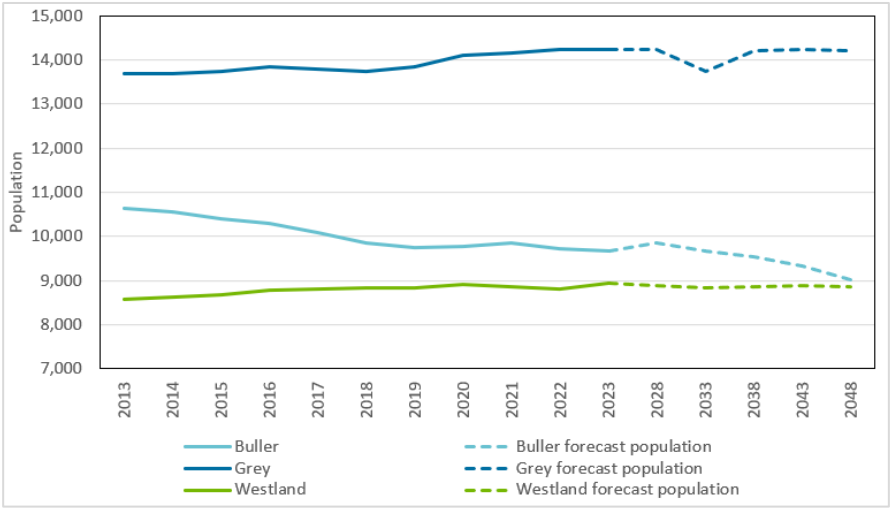

Figure 3.1: Population spread and expected growth in the West Coast.

Population

West Coast Region is home to a population of 32,700 (2023 estimate)[3] making it the least populous region in Aotearoa. The population is projected to reduce to 30,000 by 2048.[4]

Looking at the population characteristics[5], key areas to note are:

- West Coast's population tends to be older than the national average. The current median age across the region is 47.2 years.

[3] https://figure.nz/chart/qYPFtR1JzsKFLy4b-SXfyuF28vKbvz5E9 data from Stats NZ.

[4] https://figure.nz/chart/qYPFtR1JzsKFLy4b-SXfyuF28vKbvz5E9 data from Stats NZ, based on 2018 data.

[5] https://ecoprofile.infometrics.co.nz/West%20Coast%20Region/PDFProfile#h29.

- The birth rate in the region is expected to decline by 7% on average year on year from current levels, with the death rate increasing by 9% on average year on year. This is leading to an aging population within the region.
- As seen in Figure 3.2, the region's population is set to steadily decrease, meanwhile, visitor numbers are set to increase as discussed in the Tourism section below.

Marae/iwi

There are three iwi that span across the West Coast region: Ngāi Tahu, Ngāti Apa ki te Rā Tō, and Ngāti Rārua. Ngāti Waewae, a sub-tribe of Ngāi Tahu, are mana whenua for Te Tai o Poutini from Kahurangi Point, to the north bank of the Hokitika River.[6] Ngāi Tahu lands cover much of the South Island and are New Zealand's largest single tribal territory.[7]

From 2018 Census data, 11.7% of the West Coast population identify as Māori.[8]

Each Council has Māori representation:

- Buller: Non-elected Māori Portfolio Councillor
- Grey: Iwi representative
- Westland: Two iwi representatives

Industry

Key industries contributing to the West Coast's Gross Domestic Product (GDP) include electricity, gas, water, and waste services (14% of GDP, 2023), agriculture, forestry, and fishing (13.8% of GDP, 2023), and mining (8.4% of GDP, 2023).[9]

The top three farm types in the West Coast are dairy cattle farming, beef cattle farming and forestry. There are two locations for meat processing in the region – ANZCO Foods Kokiri, and Silver Ferns Farms Hokitika. Another significant driver of economic activity is Westland Milk Products, which has a new lactoferrin plant being constructed at a facility based in Hokitika.[10] This new plant adds to powder and butter manufacturing at the site.

Mining is the key industry where the West Coast Region shows a strong comparative advantage.[11] The West Coast has a range of existing and potential mining projects, which includes projects recently consented near Westport, or working through the consent process north of Greymouth.

In early 2024, a number of mining consent applications have been submitted within the West Coast including a renewed application

[6] Mō Mātou | About Us | Ko Arahura te awa | Ngāti Waewae – Te Rūnanga o Ngāti Waewae (ngatiwaewae.org.nz).

[7] Ngāi Tahu – Te Ara Encyclopaedia of New Zealand.

[8] Place Summaries | West Coast Region | Stats NZ.

[9] west-coast-region-economic-profile-2023.pdf page 4.

[10] https://www.westland.co.nz/news/70m-west-coast-investment-to-secure-westland-as-global-dairy-leader/.

[11] west-coast-region-economic-profile-2023.pdf page 8.

(since approved) for a mineral sands mine north of Greymouth[12] and a mineral sand mining application near Westport.[13]

With increasing growth in these industries, it is important for the region to consider management of waste resulting from mining activities including maintenance of heavy equipment, general consumables (PPE, packaging) and waste from supporting commercial activity alongside agricultural waste products. All of these waste streams will contribute to waste requiring recycling or landfill disposal.

Tourism

The West Coast is an ideal location for tourism and has an increasing number of tourists visiting every year, particularly between the months of November and April (as seen in Figure 3.2.[14] In 2023, there was an average of 160,000 visitors to the region each month, which is greater than four times the number of residents passing through the region monthly.

Key hotspots for tourists include Greymouth, Westport, Hokitika, Fox Glacier, Franz Josef Glacier, and Reefton.[15]

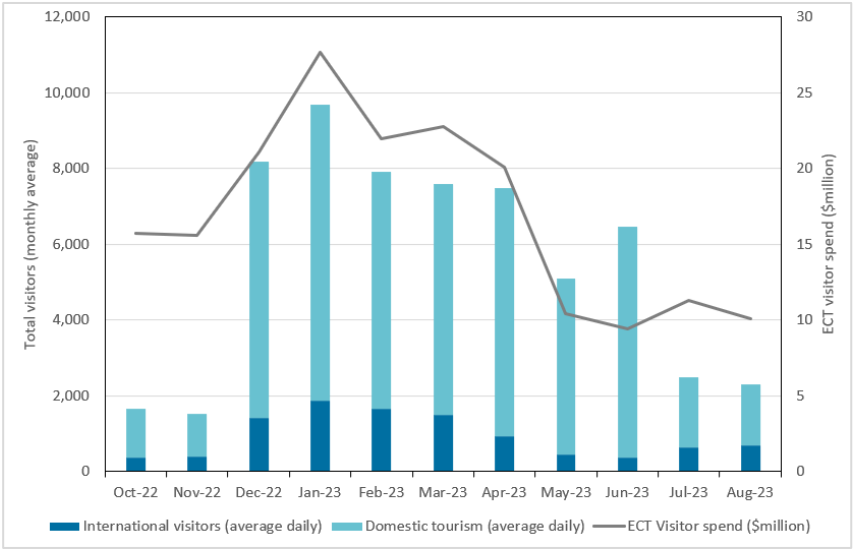

Figure 3.2: Tourism numbers and spend on the West Coast between October 2022 and August 2023.

Regional collaboration

The three district councils within the West Coast have a strong history of collaboration. The most recent Waste Management and Minimisation Plan (2018) was conducted regionally.

Grey and Westland District Council are also conducting a joint procurement for their waste services contracts, to come into place mid-2025. This aims to align services across the two districts as

[12] West Coast mine proposal gets the green light (1news.co.nz).

[13] Sand mining proposal for Buller goes to hearing | RNZ News.

[14] Tourism data sheet graph.

[15] West_Coast_Visitor_Trends_August_2023_q77iv4P.pdf. (d3sak6swcqiwkw.cloudfront.net)

much as possible. The procurement documents are being drafted in a way to allow Buller to join at a later date, if they choose to.

3.2 Regional Policy

Alongside the 2018 Regional Waste Management and Minimisation Plan,[16] the District Councils have a proposed combined District Plan: Te Tai o Poutini Plan.[17] It sets out the objectives, policies, rules, and methods to manage land use activities and subdivision across the districts. The formal public submissions and hearing runs from 2022 – 2024.[18] The existing District Plans for each Council remain in force (at least in part) until the combined District Plan comes fully into force.

3.3 Local Policy

West Coast waste management and minimisation documentation and relevant supporting policy is summarised in Table 3.1.

Long-Term Plans

All district councils within New Zealand must adopt a Long-Term Plan (LTP) as per Section 93 of the Local Government Act 2002. The LTP must be reviewed every three years and include information on activities, goods or services provided by Council, and specific funding and financial management policies and information.

Local authorities have been given the flexibility to defer the release of their 2024 – 2025 Long-Term Plans for one year whilst decisions are made by the new government on the future of the 3 Waters Service. All three Councils have decided to defer the LTP and are developing an enhanced 2024/25 Annual Plan.

The waste management and minimisation outcomes from the three district councils current LTPs are summarised in Appendix B.

[16] West Coast Regional WMMP 2018.

[17] Te Tai o Poutini Plan.

[18] https://ttpp.nz/timeline/.

Table 3.1: Relevant waste management policy for Councils in the West Coast Region

Policy	Buller	Grey	Westland
Financial Planning documents	2023 – 2024 Annual Plan Fees and Charges	2023-2024 Annual Plan	2023 -2024 Draft Annual Plan
Statutory Planning documents			
Long term plan	2021 - 31	2021-31	2024 - 2034
Infrastructure Strategy	30 Year Infrastructure Strategy 2021 - 2051	30 Year Infrastructure Strategy 2021-2051	Within 2021 – 31 LTP
Asset Management Planning documents	N/A	Draft AMP 2024	Draft AMP 2024
Landfill Management plans	Karamea and Maruia Landfills	McLeans Pit Landfill and Recycling Centre	Butlers Landfill Management Plan
Bylaws and Waste policies	Solid Waste General Model Bylaw	Solid Waste Bylaw 2012 Refuse & Recycling Kerbside Collection 2012	Refuse and Recycling Bylaw 1992

West Coast Regional Waste Management and Minimisation Plan 2018

The West Coast Regional Waste Management and Minimisation Plan was finalised in April 2018 and was adopted by all three Councils in the region in the same year.

The Plan (WMMP) covers all solid waste and diverted material (anything that is no longer required for its original purpose, but still has value through reuse or recycling is "diverted material" in the three districts, whether they are managed by Council or not) generated in the West Coast Region. This does not imply that the Councils are going to have direct involvement in the management of all waste - but there is a responsibility for the Councils to at least consider all waste in their districts, and to suggest areas where other groups, such as businesses or householders, could take action themselves.

The Plan's vision is:

"To deliver community benefits and reduce waste. West Coast businesses and households will be provided with efficient and effective waste minimisation and management services."

Goals include actively avoiding and reducing waste where possible, managing waste responsibly, and maximising community benefit. Further information on the associated objectives and targets are available in Section 8.1.

Waste bylaws

Table 3.1 describes the most recent Solid Waste Bylaws in the region. The Local Government Act 2002 explains that a local authority must review a bylaw no later than five years after the

date on which the bylaw was made. Therefore, each district council is overdue for a review of their solid waste bylaw.

3.4 Implications for the West Coast

Based on the factors described in this section, Council will need to plan for:

- Waste streams which are generated from an aging population (medical and sanitary waste).
- Management of varying waste volumes from peak tourism seasons and international tourists who may have less knowledge of New Zealand waste management systems.
- Management of material quantities from growing industries, particularly organic materials from forestry and the primary sector.
- In tourist hot spots, there is an opportunity for recovery of commercial food waste.
- Supporting Mana Whenua aspirations in regard to waste management and minimisation.
- Increased collaboration with other neighbouring regions, district councils and stakeholders in the waste sector.
- Increasing commercial waste as a result of increased economic activity (new mining activity, Westland Milk expansion).

4 Waste education, services, and infrastructure

Councils have a number of roles to play in regard to waste education, services, and infrastructure, depending on the level of influence they hold. At each level of the waste hierarchy, the council can have more or less influence.

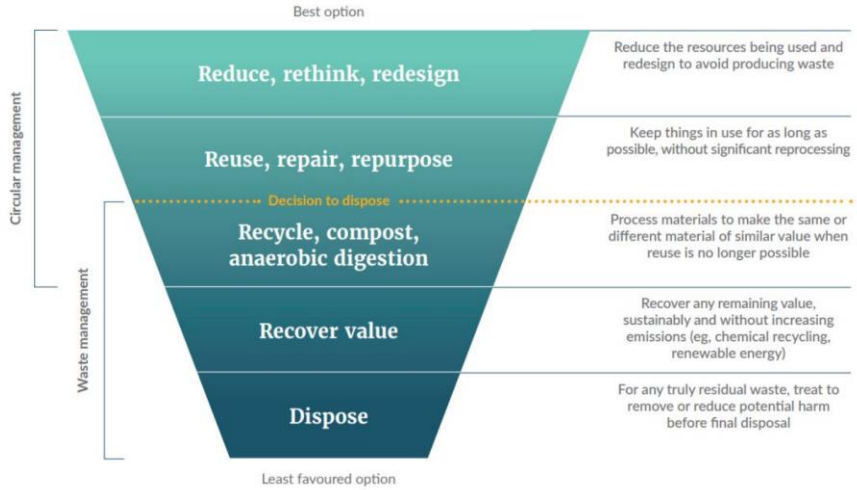

Figure 4.1: The Waste Hierarchy.

Table 4.1: Council's role at each level of the waste hierarchy

Level of the waste hierarchy	Council's role
Reduce, rethink, redesign	Collaborator/connector Advocate/promote
Reuse, repair, repurpose	Collaborator/connector Advocate/promote
Recycle, compost, anaerobic digestion	Service provider. Collaborator/connector Advocate/promote
Recover value	Service provider. Advocate/promote
Dispose	Service provider

4.1 Reduce, rethink, redesign

The 'reduce, rethink and redesign' stage of the hierarchy aims to reduce the resources being used and redesign to avoid producing waste.

Outside of sharing educational and informative information on their website, Councils have minimal influence in this space. Therefore, their role becomes that of collaborator/connector, and to advocate/promote.

Education and behaviour change

The importance of effective education, communication and behaviour change in waste minimisation and material recovery is widely accepted. This is an underlying need at all levels of the waste hierarchy.

Targeted communication campaigns with clear, concise messages developed using behaviour change principles can have a strong impact on behaviour – whether this be about reducing or rethinking waste that is in individual control (i.e., a takeaway coffee cup) or behaviour at disposal (i.e., disposing of batteries at a drop-off location rather than putting them into landfill).

Enviroschools

There are 20 Enviroschools within the West Coast Region, including five Eco early childhood education centres and 15 schools. All Enviroschools engage in a wide range of actions for sustainability – one of these actions is 100% zero waste, showing that waste minimisation is a core part of the programme.

Regional partners include Buller, Grey and Westland District Councils and the Department of Conservation (DOC). Regional collaborators in the West Coast are Conservation Volunteers New Zealand, Sustainable Coastlines Charitable Trust, West Coast Penguin Trust, and West REAP (Rural Education Activities Programmes).

4.2 Reuse, repair, repurpose

The 'Reuse, Repair, and Repurpose' stage of the hierarchy aims to keep things in use for as long as possible, without significant reprocessing.

Councils have influence in this area through three key avenues:

1 Education: providing resources online promoting ideas on how to reuse or repurpose commons items, or directing to community groups or businesses can repair.

2 By supporting and/or creating a space for people to learn how to repair items (i.e., holding a repair café, or supporting a community group to do so).

3 By supporting, sharing, and lobbying for consumer's right to repair.

Right to repair

Although Councils do not have jurisdiction to require producers to repair their goods, Councils can get involved in lobbying for central government to take some action. In April 2024, The Consumers Guarantees (Right to Repair) Amendment Bill was introduced to Parliament. The aim of this bill is to require manufacturers to make items repairable, new parts accessible and information available to consumers.

4.3 Recycling and recovering value

Where we are unable to keep materials in use without significant reprocessing New Zealand's nationwide recycling infrastructure (e.g. transfer stations, processing plants) is vital to process these materials to make the same or different material of similar value.

Transfer stations, recycling, and resource recovery centres

The West Coast region has a range of facilities to manage waste (Table 4.2).

In Buller District, recyclable materials are captured at Westport and Reefton Transfer Stations, Maruia Recycling Centre, and Karamea Resource Centre where they are sorted before being sent to end markets out of the region (Table 4.5).

In Grey District, there are Resource Centres at Blackball, Moana and Nelson Creek, and Preston Road Recycling Centre in Blaketown. Recyclables are consolidated at these sites and sent to McLean's Pit Recycling centre for sorting, before being sent out of the region to end markets.

Westland District have a number of transfer stations located at Kumara, Hokitika, Ross, Harihari, Whataroa, Franz Josef, Fox Glacier and Haast. These Transfer Stations are used to consolidate waste streams. Recyclable materials are sent to Hokitika Transfer Station for sorting before being sent out of the region to end markets.

There are currently three Material Recovery Facilities in the region located at Westport Transfer Station, McLeans Pit Recycling Centre, and Hokitika Transfer Station (Table 4.2).

Due to the low population density across the three districts, a Council-provided kerbside waste collection service is not available for all residents. There are some private kerbside collection services available for residents in Hokitika, Greymouth and surrounding areas, however these boundaries are similar to the Council-offered services. Therefore, households commonly drop their waste directly at transfer stations across the region.

Organics processing

Central government have signalled a potential future requirement for territorial authorities to provide kerbside organics collection services. There are currently no commercial composting / organics processing operations of any scale in the West Coast Region.

At the time of writing, an organics feasibility study is being undertaken within the region.

4.4 Disposal

Disposal should be viewed as the final option for materials where reuse, repair, recycling and recovering value are not viable options. To help manage these residual materials which are generated landfills are utilised as specially designed assets to control the disposal of waste.

Landfills

There are seven operating landfills in the Region as shown in Figure 4.3), five are Council-owned and two are privately owned.

With no large-scale landfill in the Buller District, the majority of landfill waste generated (circa 90%) is collected at Westport and Reefton Transfer Stations and transported to York Valley Landfill in Nelson. Landfill waste from Karamea and Maruia townships is disposed of at their small local landfills which continue to operate to avoid transporting landfill waste long distances. Consent conditions for the Karamea and Maruia sites limit the volume of waste which can be received as these facilities are primarily for local use. Due to the low capacity of these sites, Buller District is reliant on transporting the remaining landfill waste to York Valley Landfill in Nelson.

Landfill waste which is generated in Grey District and Westland District remain within the districts. All landfill waste in Grey is sent to McLean's Pit Landfill which is 6 km outside of Greymouth, and all landfill waste in Westland is sent to Butlers Landfill outside of Hokitika.

At the time of writing this report there are also two private landfills in the region - Taylorville Resource Park in Grey District and Rosco Contractors in Buller District.

The cost to dispose of landfill waste in the West Coast Region is significantly higher than neighbouring districts and districts of a similar context. Disposal fees in the 2023/24 financial year range from $441 per tonne in Grey District to $595 per tonne in Westland District. This is on average $180 greater than districts of a similar context (Figure 4.2).

These disposal costs reflect several factors that include small scale disposal facilities (Grey, Westland) and the need to transport materials significant distances (Buller, Westland).

Disposal fees are set to continue to increase in line operational costs (including transport), capital investment and ongoing increases in waste levy and emissions trading scheme costs. This means that affordability and access is likely to be an ongoing challenge. The increasing costs may make alternatives such as reuse, recycling, and recovery more attractive for many materials.

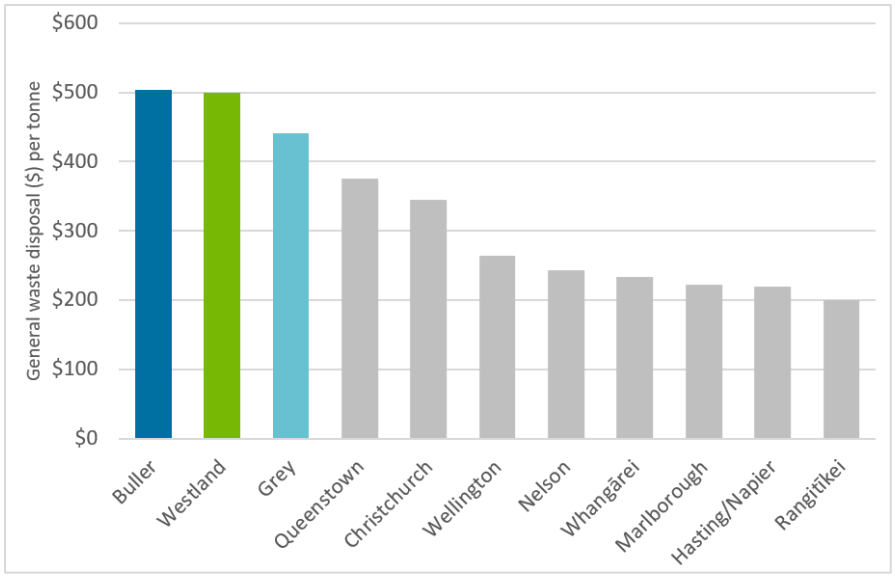

Figure 4.2: Waste disposal costs comparison.

Table 4.2: Facilities for managing landfill waste and recycling

District	Facility name	Landfill waste accepted	Recycling accepted	Weighbridge	Notes
Buller	Westport Transfer Station	Yes	Standard recyclables, scrap metal, tyres, batteries, e-waste, used oil and paints.	Yes	All kerbside landfill waste and recycling is transported to the Westport Transfer Station. Landfill waste is packed for transport and sent to Nelson's York Valley Landfill. There is a material recovery facility (MRF) on-site to sort and bale the recyclables. Recycling is checked, sorted, and compacted before being sent to processing plants (end markets) outside of the region.
	Reefton Transfer Station	Yes	Standard recyclables, scrap metal, tyres, batteries, e-waste, Agrochemical containers, oil, and paint.	Yes	Domestic drop off only.
	Karamea Resource Centre	Yes	Plastics (1,2, and 5), cans, scrap metal, tyres are received as recycling.	Yes	Glass and fibres are accepted but currently disposed as landfill waste. Recycling is sent to Westport for sorting.
	Maruia Recycling Centre	Yes	Plastics (1,2, and 5), paper/cardboard, cans, and sorted glass (by colour).	No	Recycling is sent to Westport MRF for sorting.
Grey	McLean's Pit Landfill and Recycling Centre	Yes, including hazardous waste	Plastics (1,2, and 5), paper/cardboard, cans, glasses, and green waste.	Yes	There is a MRF on-site to sort and bale the recyclables.
	Blackball Resource Centre	Yes	Plastics (1,2, and 5), paper/cardboard, cans, and glass.	No	Landfill waste is sent to McLean's Pit Landfill for disposal. Recycling is sent to McLean's Pit Landfill for sorting.
	Nelson Creek Resource Centre			No	
	Moana Resource Centre			No	
	Preston Road Recycling Centre			No	

District	Facility name	Landfill waste accepted	Recycling accepted	Weighbridge	Notes
	Mitchells Refuse Site	Yes	No	No	This site is for the disposal of Landfill waste only and is transferred to McLean's Pit Landfill for disposal.
Westland	Butlers Landfill	Yes	No	No	Closed to the public. All waste entering Butlers are weighed at Hokitika Transfer Station prior to arriving at Butlers.
	Hokitika Transfer Station	Yes	Plastics (1,2, and 5), paper/cardboard, cans, glass, garden waste, and e-waste	Yes	Materials are sorted at Hokitika into different categories and stockpiled, then transported to Canterbury (EnviroNZ) where it is run through an automated sorting facility. Glass is sorted into 1.5 m3 bins then sent to Visy in Auckland (via Canterbury). Landfill waste is sent to Butlers Landfill.
	Kumara, Ross, and Harihari Transfer Station	Yes, including gas bottles, whiteware and tyres.	Plastics (1,2, and 5), paper/cardboard, cans, and green waste.	No	Landfill waste is sent to Butlers Landfill. Recycling is sent to Hokitika Transfer Station where it is stockpiled and transported to EnviroNZ in Canterbury to run through an automated sorting facility.
	Whataroa, Franz Josef and Fox Glacier Transfer Station		Plastics (1,2, and 5), paper/cardboard, cans, and uncompacted green waste.	No	
	Haast Transfer Station (replaced Haast Landfill upon closure at the end of 2024).			No	Haast Landfill is due to close in December 2024, and at this point it will become a Transfer Station.

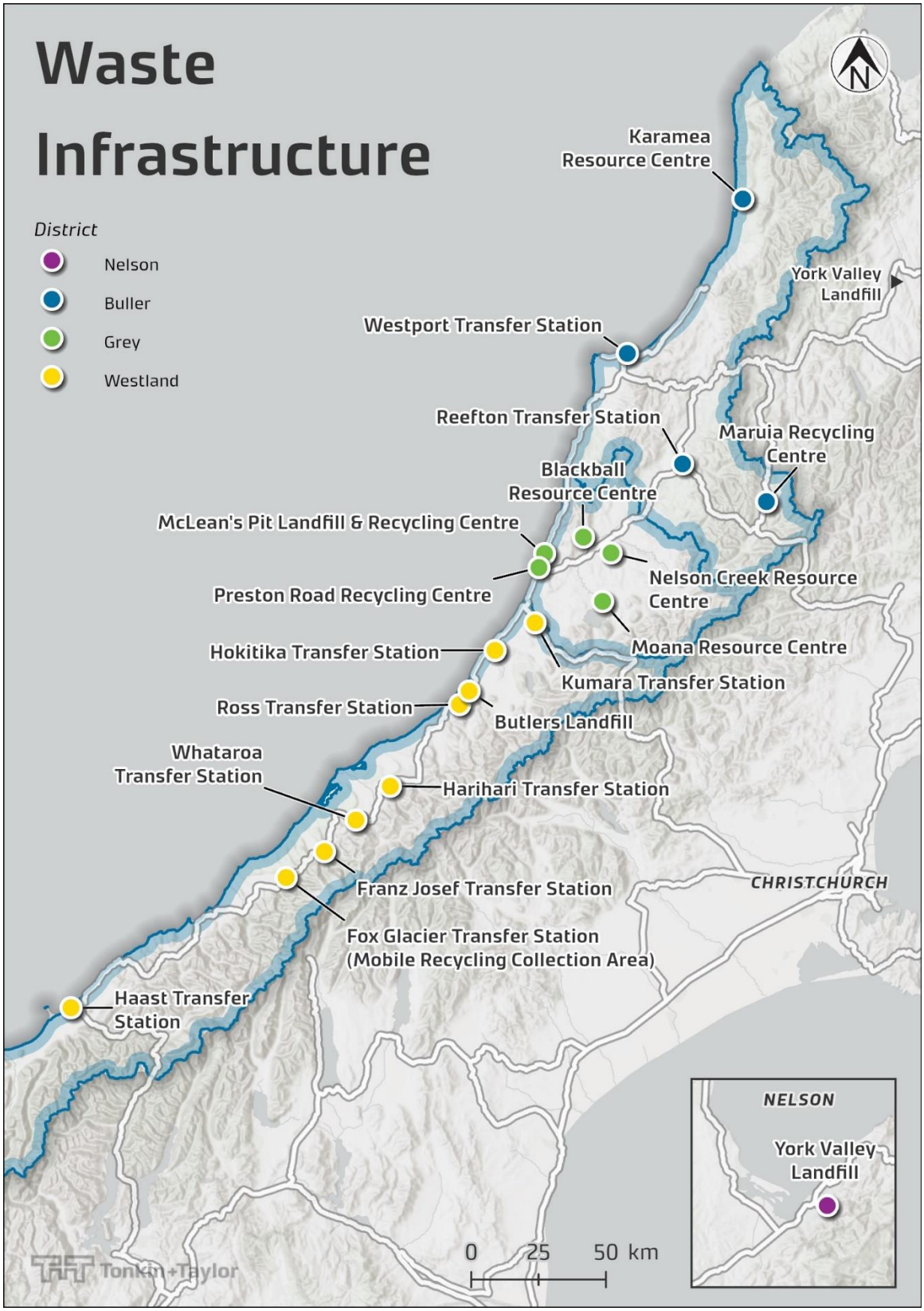

Figure 4.3: West Coast region waste infrastructure locations.

Appropriate disposal of material

During the period, this Waste Assessment has been written, Taylorville Resource Park, located in Greymouth has received an abatement notice from the Environmental Protection Authority (EPA) regarding discharge of contaminated water from the site. At the time of writing investigations are ongoing.

Closed and historic landfills

West Coast District has 26 closed landfills (Table 4.3). Each District Council provides the aftercare and monitors groundwater quality at these sites as required under resource consent conditions.[19] Where there are events that expose historic landfill sites, potentially hazardous material may contaminate public spaces such as beaches, which creates a risk to public health.

There have been numerous events in the past six years where Councils have been forced to manage the impacts of climate change at historic landfill sites.[20] In 2018, Cyclone Fehi exposed Cobden Closed Landfill which required $3.2 million investment to fix the site and construct a barrier to prevent reoccurrence. This cyclone event also caused erosion at Hector Legacy Landfill, exposing potentially hazardous materials such as asbestos.[21] As such the region needs to have greater consideration of the resilience of historic assets including landfills.

The most significant historic landfill in the region is Fox River located near Fox Glacier. Following a storm event in March 2019 which brought heavy rainfall and flooding to the region the Fox River Landfill became exposed through erosion resulting in waste washing out to the surrounding environment. After the event took place Westland District Council worked to move the bulk of Fox River Landfill by extraction and trucking. Westland District Council then partnered with the Department of Conservation and the Defence Force to clean up the waste in the river basin. A total of 15,750 tonnes of material from the landfill was collected and disposed of at Butlers Landfill.

This event sparked a nationwide review from Councils of where there were high risk sites which could face similar events. As a result, more Councils are considering the resilience of their waste management infrastructure and its impact on the environment.

[19] https://bullerdc.govt.nz/media/e0mlqxhr/buller-district-infrastructure-strategy-2021-2051_final-for-ltp-adoption.pdf p 126 (Buller only, check others).

[20] https://www.rnz.co.nz/news/national/393917/rubbish-dumps-near-waterways-in-spotlight-after-fox-river-pollution.

[21] https://www.wcrc.govt.nz/council/news-and-annoucements?item=id:25585fxh017q9s4dsct5.

Table 4.3: Closed landfills in the West Coast

Buller	Grey	Westland
Birchfield Legacy Landfill	Blackball*	Hannah's Clearing
Hector Legacy Landfill	Cobden	Neil's Beach
Inangahua	Dobson	Harihari Old Landfill
Reefton[22]	Moana	Fox River Landfill^
Ikamatua	Nelson Creek*	Sunset Point Landfill
Mawheraiti	Ngahere	Ross*
Springs Junction	Runanga	Kumara*
Charleston		Harihari*
Westport*		Whataroa*
		Hokitika*
		Canavans Knob

* Now site for transfer station or resource centre.
^ Closed Landfill Site no longer in existence (waste relocated due to 2019 event).

Public place litter bins

Litter bins are provided in the urban centres and popular visitors spots including nominated free camping locations throughout the region. Litter bin collection is undertaken by contractors with some cross over between Councils and Department of Conservation (DoC) staff with servicing of heavily used DoC locations.

[22] Note: this is not the same site as the Reefton Transfer Station.

Table 4.4: Numbers of bins and servicing contract

Buller	Grey	Westland
39 urban bins are serviced by Smart Environmental. 36 parks and reserves bins are managed by WestReef.	170 litter bins are serviced by Smart Environmental	39 town landfill waste and recycling bins are serviced by Mt Drums in the northern district and South Westland Rubbish Removal service in the south of the district.

Other waste streams which are:

- Soft plastics recycling scheme
- Soft plastics recycling scheme collection points are not currently available in the West Coast Region.

4.5 Other waste streams

Outside of the waste streams which are generated typically generated by residents and small commercial organisations there are specific waste streams which the region must also consider how to manage.

Disaster waste

Extreme weather events are becoming increasingly common in the West Coast, so more attention may need to be given to how disaster waste is managed. Currently, it is common practice for disaster waste to be sent to key landfills such as Butlers Landfill, but continuing this will decrease the lifespan of these facilities.

Buller's LTP connects climate change issues with the Civil Defence activity that is budgeted for by Council's funding for emergency preparedness.[23] As part of Grey's Environmental Services in their LTP, they aim to provide effective emergency preparedness and activated emergency activities for the safety of the community, as well as enabling communities to be prepared for these events.

Construction and demolition waste

Reducing construction and demolition (C&D) waste is a growing focus area in resource recovery, as it makes up an estimated 40-50% of Aotearoa's total waste to landfill.[24] In lieu of recovery systems, the region must build awareness of what types of C&D waste emerges from this sector. In particular, understanding what hazardous waste is produced, such as asbestos from older buildings seen recently with the demolition of Te Nikau Hospital in Grey District[25], will allow councils to prepare to dispose of this waste appropriately.

Earthquake prone buildings are also an important consideration as this has potential to create significant amounts of demolition waste. The West Coast Region has 201 earthquake-prone buildings on the natural hazards register.[26]

Medical waste

According to New Zealand's clinical waste disposal regulations, there are only a very limited number of circumstances where medical waste can go straight to landfill, without prior treatment.[27]

Medical waste is predominantly disposed of through local medical centres and hospitals. Councils receive small quantities of medical waste that has been incorrectly disposed of at its facilities.

Within the region there is one hospital located in Greymouth (GDC) and several medical centres and clinics across all districts. Medical waste from the centres and clinics are sent to Grey Hospital for disposal.

A significant proportion of in-home medical waste is currently disposed of through general waste systems, which has potential to have health and safety risks for collection and processing staff. There is opportunity for councils to work with Te Whatu Ora, Te Tai o Poutini Hospital and medical waste service providers to promote the safe and appropriate disposal of domestic medical waste.

Hazardous materials

Large quantities of hazardous waste are not permitted to be disposed of in Council landfills, however Grey District Council does accept domestic quantities of hazardous waste at McLeans Pit Landfill for storage in a secure bunded area until such time as it is

[23] 21-31-ltp-final-with-audit-report.pdf (bullerdc.govt.nz) page 59.

[24] https://www.level.org.nz/material-use/minimising-waste/.

[25] https://www.kirkroberts.co.nz/case-studies/greymouth-hospital-west-coast/.

[26] Register of earthquake-prone buildings (EPB Register).

[27] Standards New Zealand. (2002).*Management of Healthcare Waste* (NZS 4304:2002). Hutcheson, Dowman & Stewart/Standards New Zealand. Page 31. https://www.standards.govt.nz/shop/nzs-43042002/.

collected by a suitably qualified contractor for appropriate safe disposal.[28] Certain materials such as asbestos are accepted at Butlers Landfill within the restrictions of the resource consent.

Farm/rural waste

Little research has been conducted on the quantities of waste generated on farms and disposed of on-site across New Zealand. There are two pieces of research, one conducted in the Waikato and Bay of Plenty in 2014[29] and one in Canterbury in 2013[30] on farm waste. The Canterbury study found that 92% of the farms surveyed practised one of the following methods (burn, bury, or bulk store indefinitely) for on-site disposal of waste.[31]

The studies calculated average annual tonnages of waste for four different types of farm in the regions and this is seen as reflective of other parts of New Zealand.[32] Total average waste per annum for all sites was 23.7 tonnes.[33]

Stats NZ (2022 data) indicates the West Coast has approximately 700 farms of various size, including viticulture / orchards (99), dairy (291), livestock (228), arable (33) and other (66).[34]

The West Coast Region offers a small number of free local drop-off points for agrichemical container recycling[35], including:

- Farmlands in Greymouth and Westport
- Hokitika and Reefton Transfer Stations

Agrecovery can also provide free on-property collection of 61 – 1000 L containers by arrangement. Agrecovery services have had minimal uptake in the region, despite an emphasis being placed on advertising when it was initiated. Farmlands Westport has had some uptake, with approximately 25% of containers sold, being returned for recycling.

Other waste diversion schemes available in the region include:

- E-waste diversion via Techcollect Partnership.
- Small appliance recycling at Hokitika Transfer Station, in conjunction with EnviroNZ.[36]
- Mitre-10 diversion drop offs for: Polystyrene and plant pots.
- Household battery diversion.

[28] Hazardous Materials - Grey District Council (greydc.govt.nz).

[29] GHD (2014) Rural Waste Surveys Data Analysis Waikato & Bay of Plenty, Waikato Regional Council Technical Report 2014/55, July 2014.

- [30] GHD (2013), Non-natural rural wastes - Site survey data analysis, Environment Canterbury Report No. R13/52.

[31] GHD (2013), Non-natural rural wastes - Site survey data analysis, Environment Canterbury Report No. R13/52.

[32] NonnaturalWastesSitesurveydataanalysis.PDF.

[33] NonnaturalWastesSitesurveydataanalysis.PDF page 20.

[34] Farms in the West Coast Region, New Zealand - Figure.NZ.

[35] These containers must be no more than 60 L in size, have their lids removed, be free from chemical residues, and have the product label left on.

[36] https://www.westlanddc.govt.nz/notices-news-and-events/posts/small-appliance-recycling-at-hokitika-transfer-station/#:~:text=In%20conjunction%20with%20EnviroNZ%2C%20Westland,Magpies%20Nest%20re%2Duse%20shop.

- Reuse and recovery shops at McLeans Pit, Hokitika Transfer Station (Magpies Nest re-use shop), and opshops throughout the region.

4.6 Infrastructure outside of the West Coast Region

Recyclable materials collected at the waste transfer stations are transported out of the region for recycling and reprocessing. The facilities and processing providers used by Council are detailed in Table 4.5.

Table 4.5: End market providers for recycling and reprocessing

Material processed	Facility/ organisation	Processed
Council kerbside recyclable streams		
Glass	Visy Glass, Auckland	Recycled into new glass
Plastics, paper & cardboard, and Aluminium cans & tin cans	Smart Environmental, Nelson	Materials are either traded for processing NZ or exported.
	EnviroNZ, Christchurch	
Council transfer station recyclable streams		
Tyres	Tyrewise	Tyre recycling in progress
Agricultural plastics	AgRecovery, nationwide	Agrecovery has a collection container at Reefton and Hokitika Transfer Stations, and Westport and Greymouth Farmlands.
E-waste	TechCollect, Auckland	E-waste processing
Household batteries	Upcycle, Auckland	Received household batteries
Metal	Sims Metals, Nelson	Scrap metal
	Metalcorp, Christchurch	Receives scrap metal
Private waste recyclable schemes		
Polystyrene	Expol, Christchurch	Polystyrene for recycling collected at Mitre10
Lightbulbs, plant pots	Mitre 10, nationwide	Lightbulbs, plant pots recycling

4.7 Council service providers

The district councils within the West Coast engage several contractors to provide kerbside collection services, along with the management of Transfer Stations and Resource Centres. Refinement and alignment of these procurement services in the region is being explored.

Table 4.6: Service providers

Council	Service	Provider
Buller	• Zone 1[37] kerbside collection • Westport Transfer Station • Reefton Transfer Station	Smart Environmental Ltd
	• Karamea Landfill and Recycling Centre	WestReef
	• Maruia Landfill and Recycling Centre	Buller District Council
Grey	• McLeans Pit Landfill • Landfill waste collection. • Kerbside collection • Litter bin servicing. • Transfer of recyclables and landfill waste from resource centres	Smart Environment Ltd
	• Blackball Resource Centre • Nelson Creek Resource centre • Moana resource centre	WestRoads Ltd
Westland	• Kerbside collection in Northern Westland • Hokitika Transfer Station & Recycling Centre • Kumera Transfer Station • Ross Transfer Station • Harihari Transfer Station. • Transfer of recyclables and landfill waste from Transfer Stations	EnviroNZ
	• No kerbside collection is provided in South Westland • Whataroa Transfer Station • Franz Josef Transfer Station • Fox Glacier Transfer Station • Haast Landfill	South Westland Rubbish Removal
	• Butlers Landfill	WestRoads

4.8 Collection

Council provided residential collection

The Councils provide kerbside collection services across specific townships in their districts for landfill waste and recyclables (Table 4.7).

[37] For information on Buller's zoning system, please see Section 4.8.

Table 4.7: Current kerbside collection services provided by West Coast District Councils

Service	BDC – Zone 1 only	GDC*	WDC
Landfill waste	60 L Council bag[38], weekly collection	120 L bin, fortnightly collection on alternate weeks to recycling*.	120 L bin, fortnightly collection on alternate weeks to recycling
Recycling	Recycling 240 L bin, fortnightly collection Glass 45 L crate, fortnightly collection	Recycling 240 L bin, fortnightly collection. Glass 45 L crate, fortnightly collection.	Recycling 240 L bin, fortnightly collection This does not include glass.

* For Greymouth CBD, collection frequency is weekly for landfill waste and recycling.

Buller District has been divided into three zones. Zone 1 has a kerbside collection service available, detailed in Table 4.8.

Table 4.8: Current kerbside collection service areas in the West Coast

District	Service area
Buller District	Zone 1: Westport, the areas from Westport to the Mōkihinui Bridge, Westport to Punakaiki, Westport to Reefton including Blacks Point, and Reefton to Ikamatua.
Grey District	Greater Greymouth, Greater Greymouth (residential), and CBD.
Westland	Kaniere Road to Ross, north side of Hampden Street to north side of Hokitika township, south side of Hampden Street, south side of Hokitika township, Brickfield and Blue Spur Roads to Arahura bridge, Kumara Junction to Stafford Loop Road, and Kumara township to Taramakau bridge (return).

Kerbside landfill waste in Grey District is collected and disposed of at McLean's Pit Landfill near Greymouth. Households in Grey District have a fortnightly landfill waste collection service and fortnightly co-mingled recycling and glass recycling collection.

Westland kerbside landfill waste and recycling (excluding glass) is collected and transported to be disposed at Butlers Landfill. This service is provided in Hokitika, Kumara and Ross. Landfill waste and recycling (excluding glass) are collected on alternating weeks. Ratepayers may opt to receive a second sets of bins for an additional rating charge.[39] Glass can be dropped off at transfer stations and sorted by colour.

Commercial and/or industrial collection

Councils offer commercial and industrial organisations the same landfill waste and recycling kerbside collections service as households, consistent with the services detailed in Table 4.7 and Table 4.8. This collection service is tailored to households. If

[38] It is challenging to find this information online.

[39] Draft AMP Westland.

organisations generate more waste, then they can fit in their bin set, the following options are offered:

- Request an additional set of bins, up to a maximum to 2 bin sets (Buller + Westland).
- Drop-off any excess landfill waste and recycling that does not fit in their bin sets at a local transfer station.
- Purchase official landfill waste bags as required (Buller only).
- Arrange a collection service with private contractor.

4.9 Litter and illegal dumping

The West Coast Region has historically had issues with litter and illegal dumping. There are high costs to removing illegally dumped waste, which could be better spent on opportunities higher up in the waste hierarchy. The relative remoteness of the region makes it easy to find locations to dump material if businesses or households want to avoid disposal charges.

Councils are taking action where possible, including investigating littering and illegal dumping occurrences, and charging fines of $400 to persons who commit the offence.

Website information and education

Councils also make clear and concise information available on their Council website, particularly for how to best use the collection and Transfer Station services shown in Table 4.9.

Table 4.9: Education provided on Council websites

Topic	Buller	Grey	Westland
Bin collection	✓	✓	✓
What can I recycle?	✓	✓	✓
Where to go?	✓	✓	✓
Recycling resources	✓	✓	✓
Composting guidance	x	✓	✓
Hazardous materials	x	✓	✓
Agrecovery	✓	x	✓
Battery recycling	✓	x	✓
E-waste	✓	x	✓
Event waste management and minimisation	✓	x	x
Business waste management and recycling	✓	x	x

[40] https://bullerdc.govt.nz/media/z0udrkyb/21-31-ltp-final-with-audit-report.pdf p 85.

4.10 Costs for waste management and minimisation

Funding approach

The 2021 – 31 Long-Term Plans set the budget for solid waste operational activity with provision to make amendments if required through the Annual Plan process. The funding allocations are depicted in Figure 4.2.

Funding for operations is through general rates, targeted rates, and user charges. The targeted rates fund kerbside collection services and are detailed through to 2025/26 in Table 4.10.

Table 4.10: Targeted rates for waste management

District	Targeted rate 2023/24	2024/25	2025/26
Buller District Council[40] (inclusive GST)	Zone 1: $178 Zone 2: $253 Zone 3: $123	Zone 1: $199 Zone 2: $257 Zone 3: $131	TBC
Grey District Council	Residential: $362.14 Commercial: $684.46	Residential: $411.57 Commercial: $777.89[41]	TBC
Westland District Council	$294 bin collection cost only	$294 bin collection cost only	$294 bin collection cost only

[41] Based on current draft of the enhanced annual plan 2024/25, noting this is yet to be formally approved so is subject to change.

Waste levy received

Due to the increase in the Waste Disposal Levy charged per tonne of waste disposed to landfill between 2021 and 2024, the amount of the levy revenue that the Councils have received has increased Figure 4.5), creating additional funding opportunities locally for waste minimisation activities. Levy revenue is expected to continue to rise with increases announced through to 2027. With the forecasted decrease in population, the proportion of Waste Levy received by Councils may also decrease in the future.

The amount through to 2027 will likely increase each Council's funding by 20% or more. This will depend on the total quantity of material disposed of to various landfill types across New Zealand.

Other relevant funding sources

- $900,000 has been awarded from the Waste Minimisation Contestable Fund to investigate Construction and Demolition material reprocessing across the region.
- $75,000 has been awarded to the three district councils from the Waste Minimisation Contestable Fund to investigate the feasibility of Regional Organic processing solutions.

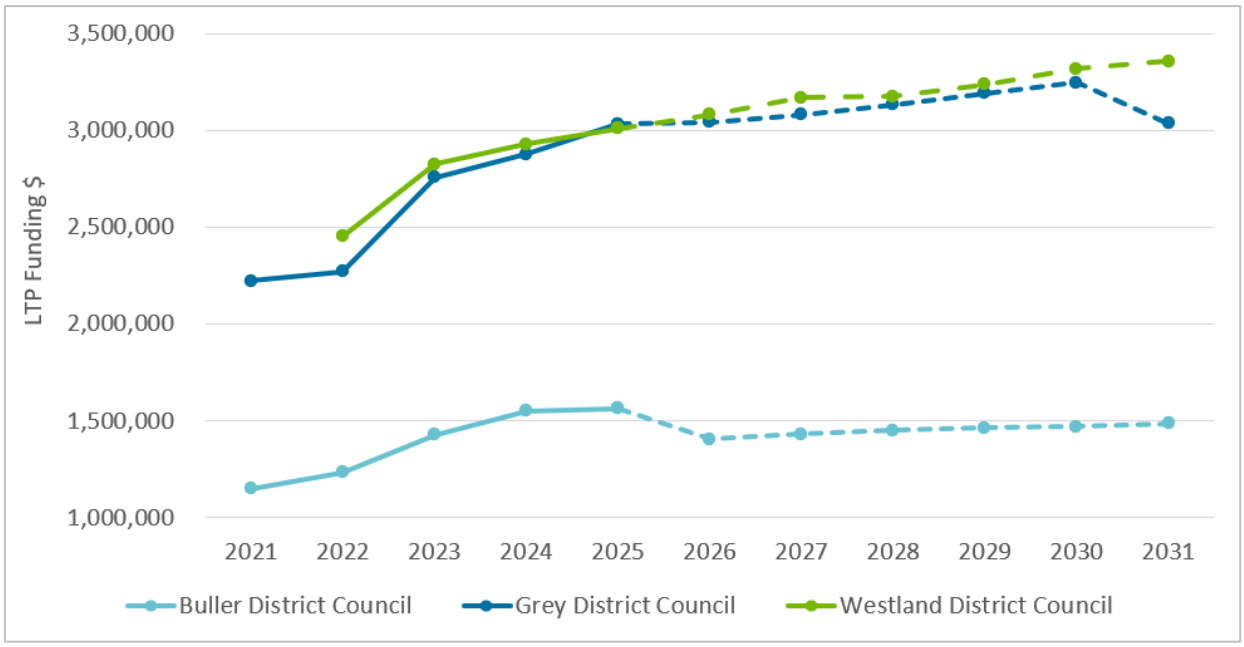

Figure 4.4: Solid Waste Operations funding forecast
Note: dotted line after 2024/25 in graph shows funding forecast.

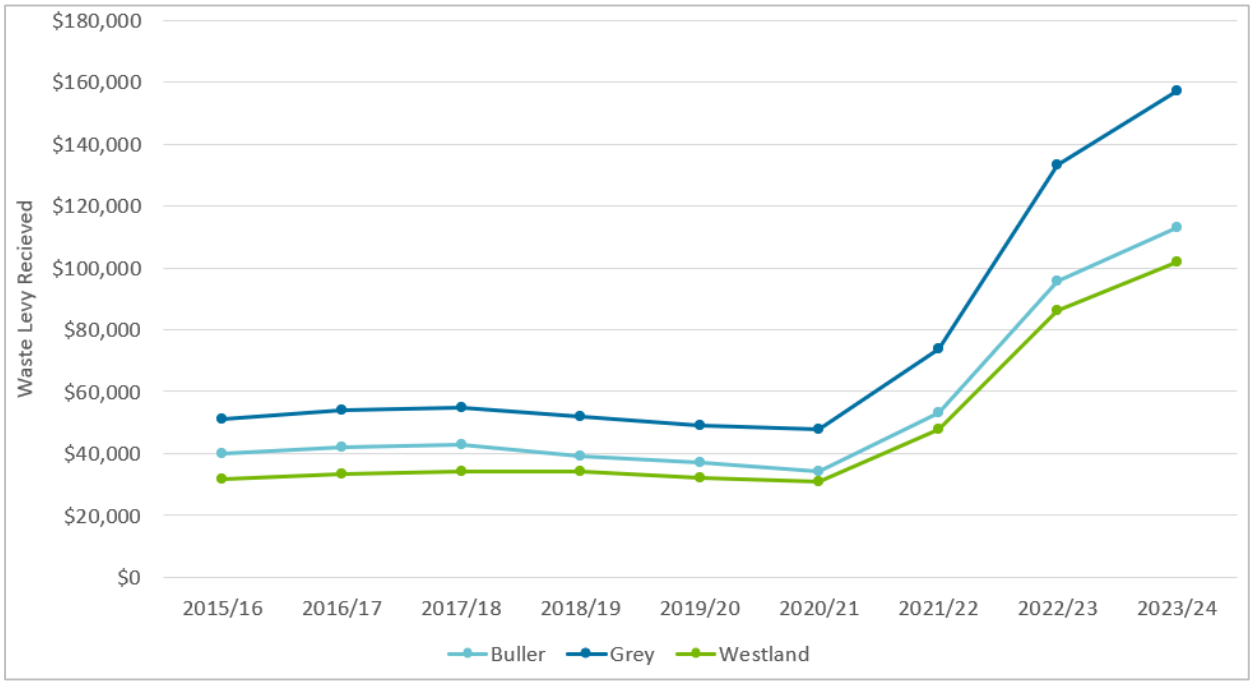

Figure 4.5: Waste Levy Received in West Coast, by district.[42].

[42] https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fenvironment.govt.nz%2Fassets%2Fta-payments-as-at-jan-24-work-spreadsheet-with-graphs.xlsx&wdOrigin=BROWSELINK.

5 Waste quantities and composition

This section describes the material quantities and composition resulting from the waste management system described in Section 4.

5.1 Timeframe

This document focuses primarily on data for the period between FY 2018/19 and 2022/23, as this data has been collected most consistently across all districts allowing for more accurate comparison. Waste quantities, composition and flows prior to this period are detailed in the 2018 regional Waste Assessment and WMMP.

5.2 Data availability

The information presented in this Waste Assessment informs the strategic approach and specific actions presented later in the document. The data availability for this Waste Assessment shows where there is opportunity for improvement, creating potential actions around data capture and collection.

Data received from the waste service contractors has had varying levels of detail for each district. This is particularly relevant for Westland, where they have two separate contractors in the North and South of the district. Once Haast Landfill closes all waste will be entering Butlers Landfill which will streamline the reporting for the district.

There are two private waste facilities in the region, Taylorville Recovery Park, and Rosco's Hole, both of which have very limited information publicly available on their infrastructure, services, and waste data.

During a waste levy audit conducted by MfE in 2023, it became clear that there was an error in the process for weighing recoverable material entering Grey District Council's McLeans Pit Recycling Centre. The recoverable material which was destined to be recycled was not weighed into the facility, only upon leaving McLean's Pit Recycling Centre to go to the processing facility. Therefore, the weight of some recoverable material which did not go for recovery (due to contamination levels) has not been recorded. This has resulted in some discrepancies in the data from Grey District. For the purpose of this Waste Assessment, we have used the data available from the weighbridge, acknowledging there may be a small margin of error in the recycling data for Grey District.

5.3 Waste quantities

A summary of all material disposed of across the West Coast Region is detailed in Figure 5.1. The data shows that regional waste and recycling volumes are steadily increasing.

There was a significant peak in waste disposal during 2020/21 due to the relocation of 15,750 tonnes of material from Fox River Landfill to Butlers Landfill[43].

As shown in Figure 5.1, diversion rates currently being achieved across all facilities in the region has averaged 19% over the past five financial years. The data demonstrates a dip in recovery in 2020/21 which can be attributed to a few factors.

1 Firstly, as a result of the Covid-19 pandemic, during nationwide lockdowns some recovery services were temporarily stopped, as a result households were required to dispose of recycling alongside general waste or stockpile it until the facilities started to accept the material again.

2 The second reason for the dip is due to a fire which took place at McLean's Pit Resource Centre in late 2020. This resulted in the facility closing to repair the damage to the site which was therefore unable to accept and process recyclable waste streams. The facility reopened in early 2022.

3 With a natural increase in landfill waste generation from 2018/19 to 2022/23 the diversion rate has naturally decreased. The amount of recyclable waste (including glass) generated in the region as a whole remains consistent at around 2,700 tonnes per year.

4 Two major flooding events took place in Buller District during July 2021 and February 2022 which increased the total quantity of waste to landfill by around 750 tonnes compared to previous years. As more waste was sent to landfill in the district a lower recovery rate was achieved.

[43] Fox Glacier Landfill Remediation Complete | Westland District Council (westlanddc.govt.nz).

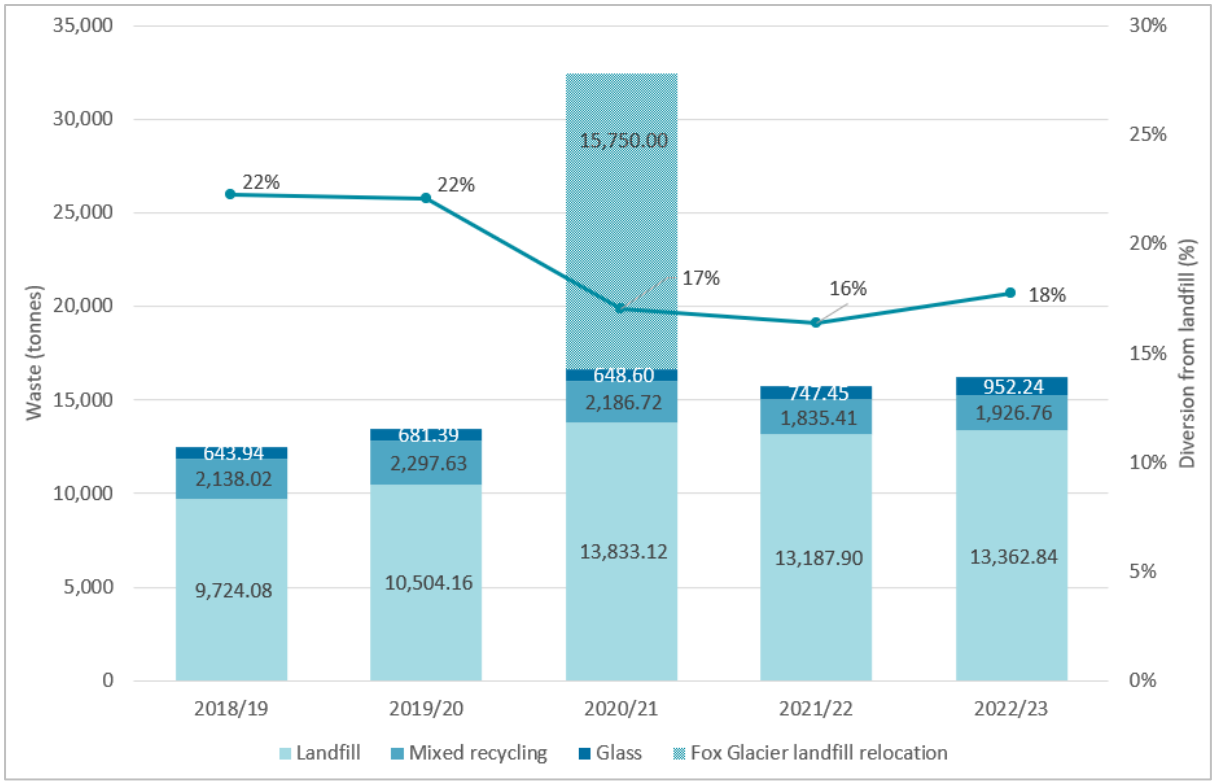

Figure 5.1: Regional waste volumes and diversion rates achieved (including kerbside).

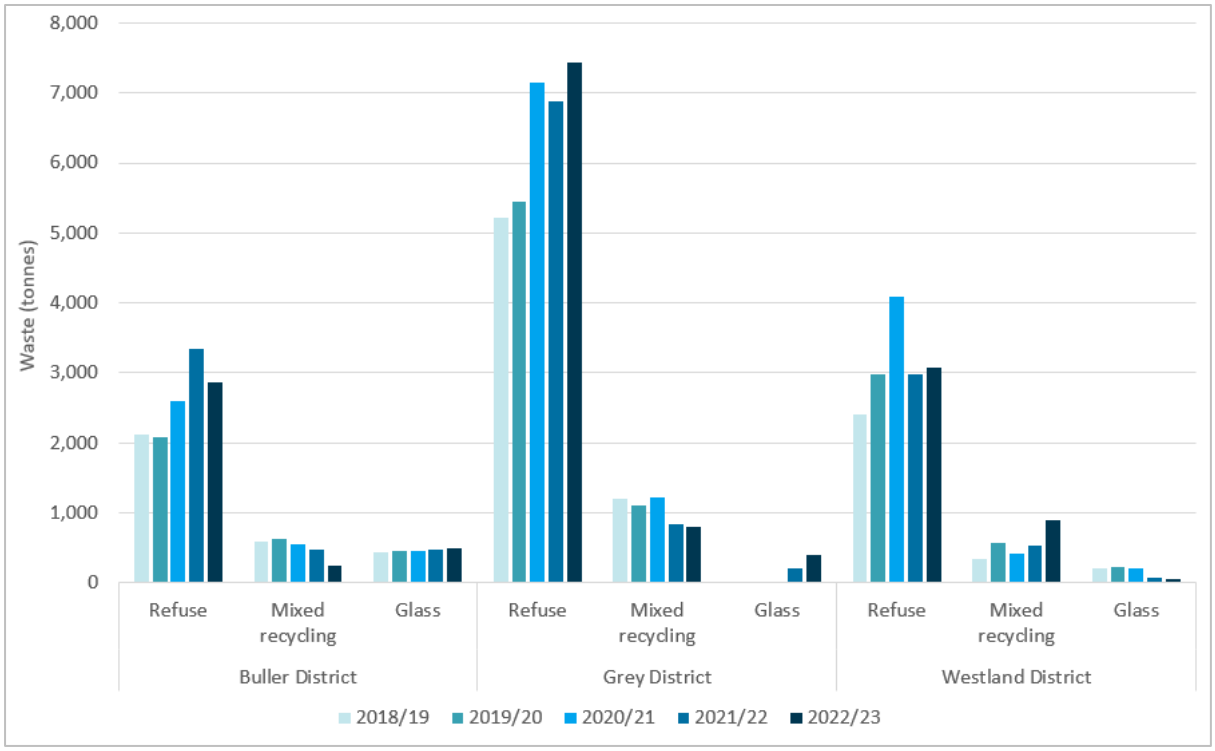

Figure 5.2: All regional waste by district.

Kerbside waste quantities and composition

Figure 5.3 provides a summary of the waste collected from the kerbside across the West Coast Region. Kerbside collection tonnages remain consistent across the period shown, with kerbside landfill waste contributing around 25% of the overall waste in the region. Of the total kerbside waste (including recycling) collected during 2018/19 to 2022/23, on average, 34% is being recovered through co-mingled recycling or glass collections.

Composition of Waste Study (SWAP)[44] data, collected at Westport Transfer Station in 2017, has been used to assess the composition of residential landfill waste collected at the kerbside. The data shows that 70% of the landfill waste generated by households in the region is paper, plastic, putrescible (food and garden waste), metals and glass - most of which is potentially recoverable (Figure 5.4).

In 2014, Buller District Council implemented a kerbside glass collection which increased the district's diversion of waste from landfill from 14% to an average of 40% per annum (2013/14 to 2022/23).

The total quantity of material generated by each district is detailed in Figure 5.2. The quantity of waste is reflective of the population in each district with Grey generating the largest. The data demonstrates on average 81% by weight of all waste generated is sent to landfill.

We have used the general waste SWAP data collected at Westport Transfer station in 2017, to quantify current and potential material capture based on 2022/23 data. As the West Coast Region has not undertaken a SWAP study to investigate the composition of mixed recycling entering the transfer stations in the region, this assessment has used the SWAP data available from another district council of similar context to analyse the recovery which may currently be taking place.

The data shown in Table 5.1 and Figure 5.5 demonstrates the greatest ability to increase capture is through focusing efforts on organics (food and garden waste), plastics and paper/cardboard.

[44]Composition of Waste Study: Westport Transfer Station 11 – 17 December 2017. C. Abernathy, JBL Environmental Ltd.

Table 5.1: Potentially recoverable material from kerbside waste

Material	Current recovery (2022/23)		Potential recovery		Total increase	
	%	tonnes	%	tonnes	%	tonnes
Paper	66%	918	75%	1,038	9%	120
Plastic	20%	159	50%	388	30%	229
Organics (food and garden)	0%	-	60%	628	60%	628
Ferrous metal	44%	56	75%	96	31%	40
Non-ferrous metal	45%	29	75%	49	30%	20
Glass	80%	632	90%	714	10.3%	82
Total	33%	1,794	54%	2,913	21%	1,118

Notes: The above calculations assume 90% capture of glass, 75% capture of paper, ferrous and non-ferrous metals, 60% capture of organics and 50% capture of plastic.

Kerbside waste quantities summary

Figure 5.5 illustrates the data presented in Table 5.1 in graphical form showing current and potential future capture of recyclable and recoverable materials. This is based on the estimate composition, current recovery rates and achievable capture rates for specific material streams. Key points to note include:

- **Paper and cardboard** capture is good (estimated at 67%), with potential to increase this to around 75% with strong education and information for households.
- **Plastic** capture is relatively low but with many plastics not recyclable in New Zealand only plastics 1, 2 and 5 could be targeted through kerbside collections. This can be improved through education and information for households.
- **Organic** capture of 50-60% is considered achievable for kerbside. To achieve this for the West Coast Region a kerbside organics collection will need to be implemented alongside education and information for households.
- **Ferrous and non-ferrous metal** capture is relatively low, this may reflect materials which are not suitable for kerbside recycling i.e. not cans being disposed of through the landfill waste collections. There may be potential to increase this to around 75% for both metals with strong education and information for households on putting aside bulky metals for recycling at transfer station and targeting cans and tins for recycling.
- **Glass** capture at kerbside very good achieving 80% diversion from landfill. Initially for Grey this was not the case as previously glass was included in the mixed recycling collection, therefore users of the kerbside service were required to break this habit. This was successfully changed through effective communication. Many districts of a similar context achieve 90% capture or higher and this should be achievable once the Westland kerbside glass recycling system is in place.
- If the kerbside recovery rates anticipated are achieved this could result in over 50% recovery rate at kerbside. Key contributors to the increased recovery are organic materials (requiring a new collection), paper/card and plastics.

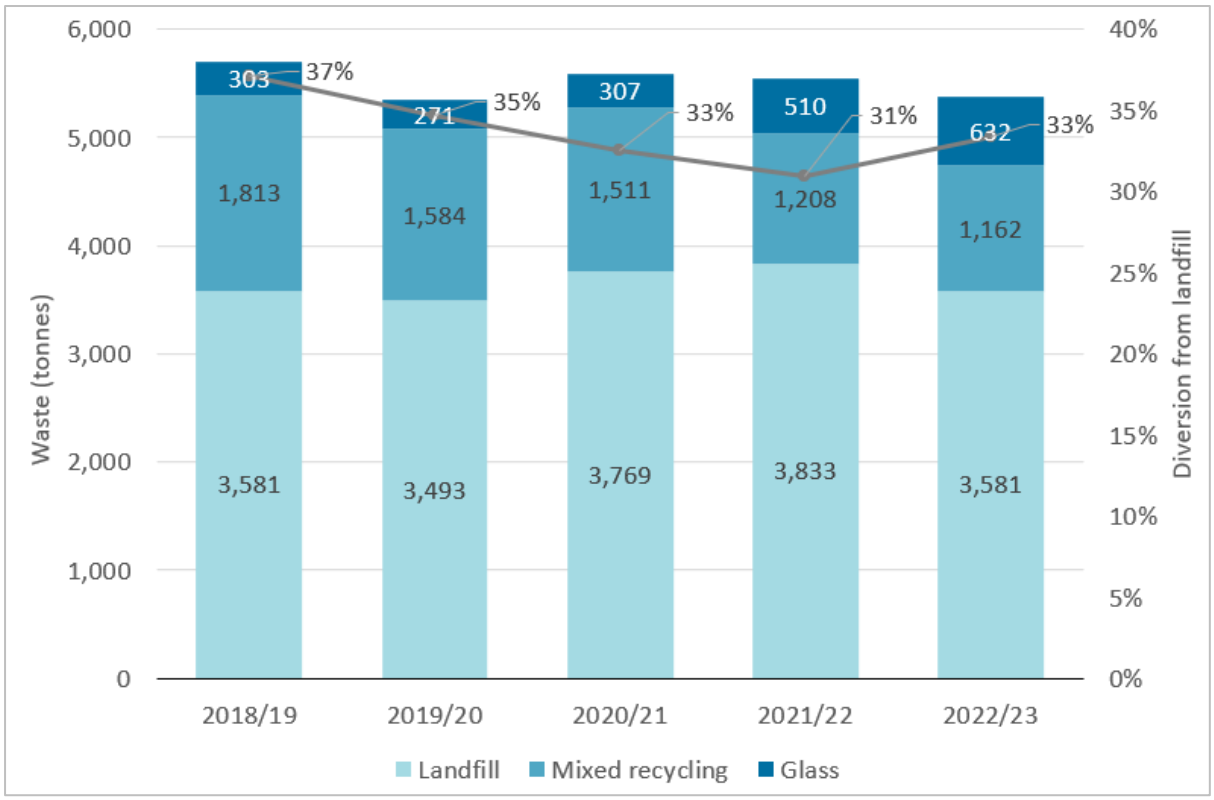

Figure 5.3: Regional kerbside waste and diversion.

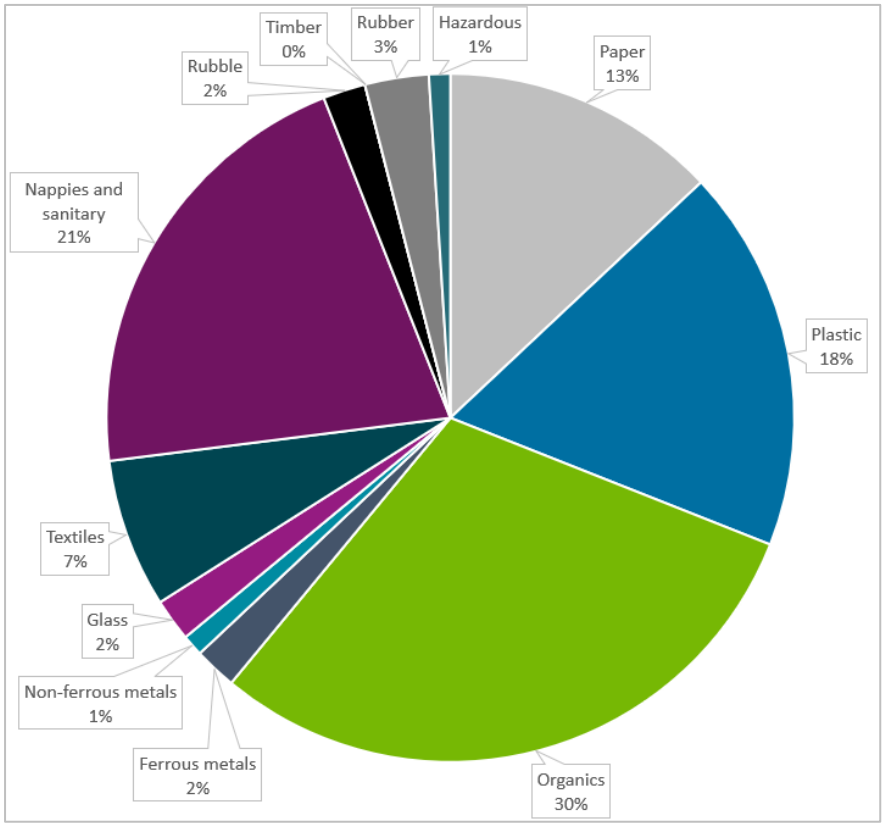

Figure 5.4: Kerbside landfill waste composition (2017 SWAP data from Westport Transfer Station).

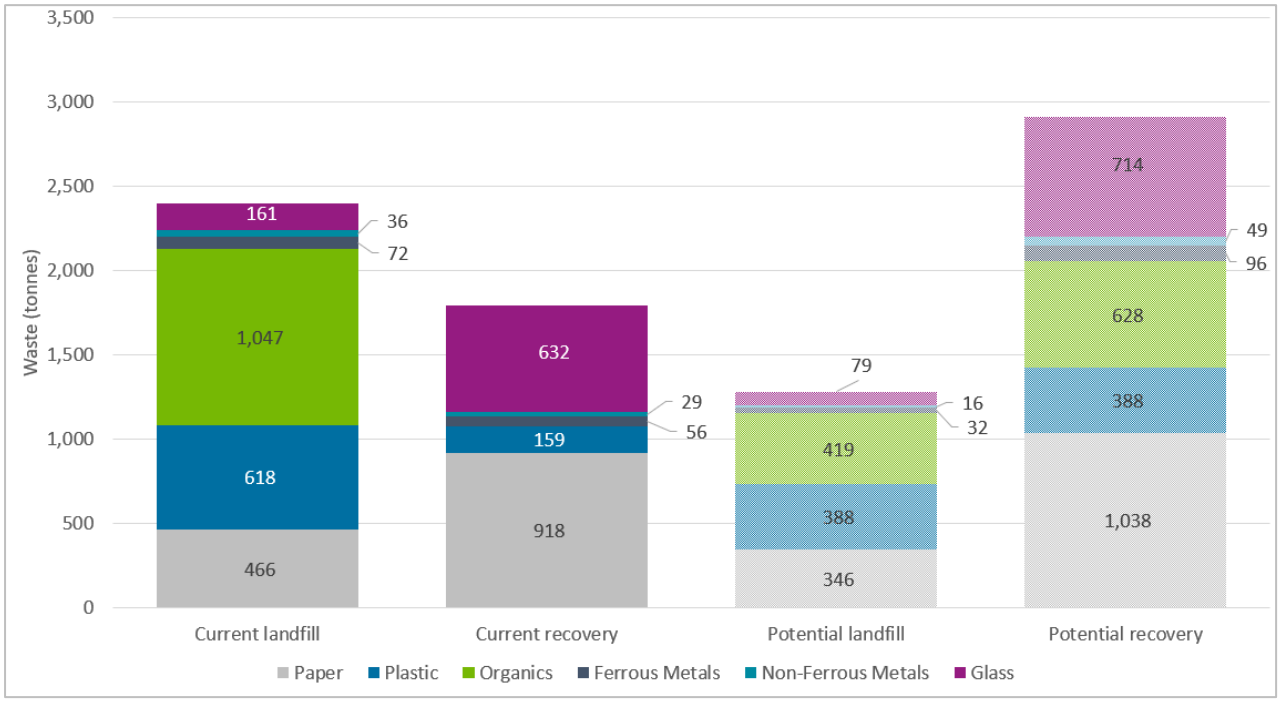

Figure 5.5: Current and potential kerbside material capture.

Transfer Station

As discussed in Section 4 waste is consolidated in multiple facilities across each district before being transported to the primary facility in each district for either disposal to landfill or recovery through markets in New Zealand and internationally. Figure 5.6 demonstrates the total final quantities each facility receives.

The West Coast Region has not undertaken a SWAP study to investigate the composition of mixed recycling entering the transfer stations in the region. Therefore, this assessment has used the SWAP data available from another district council of similar context to analyse the recovery which may currently be taking place.

Waste entering the system through direct drop off at the Transfer Stations and Resource Recovery Centres across the region shows a similar picture to the kerbside diversion. The waste streams which have no current option for diversion at kerbside (organics – food and garden and glass in Westland) demonstrate greater diversion at transfer station. The data (shown in Table 5.2 and Figure 5.7) demonstrates the greatest ability to increase capture is through focusing efforts on plastics, paper/cardboard, organics (food and garden) and glass.

Figure 5.7 illustrates the data presented in Table 5.2 in graphical form showing current and potential future capture of recyclable and recoverable materials. This is based on the estimate composition, current recovery rates and achievable capture rates for specific material streams.

Table 5.2: Potentially recoverable material from transfer station waste

Material	Current recovery (2022/23)		Potential recovery		Total increase	
	%	tonnes	%	tonnes	%	tonnes
Paper	15%	325	50%	1,097	35%	772
Plastic	2%	56	60%	1,607	58%	1,550
Organics (food and garden)	14%	267	60%	1,111	46%	844
Ferrous metal	7%	31	50%	216	43%	185
Non-ferrous metal	6%	10	50%	83	44%	73
Glass	31%	285	50%	465	19%	180
Total	9%	974	43%	4,579	34%	3,605

Notes: The above calculations assume 60% capture for organics and plastics and 50% capture for paper, metals, and glass.

Transfer station waste quantities summary

Key points to note include:

- **Paper and cardboard** capture is relatively low, with potential to increase this to around 50% with strong education and information for households. It should be noted that much of the paper and cardboard entering the transfer stations will be contaminated therefore unable to be captured.
- **Plastic** capture is very low, and improvements should be possible including targeting materials not collected at

kerbside and ‘clean’ commercial streams such as agricultural plastics.

- **Organic** capture is low with potential to target an increase in green waste captured at transfer stations. There may be potential to increase this to around 60% with strong education and information for households.
- **Ferrous and non-ferrous metal** capture is relatively low, there should be potential to increase this to as much as 50% for both metal types with strong education and information for households on separating bulky metals for recycling. For metals, given their value as commodities, there may be potential to offer incentives alongside education for separating materials - for example free drop off supporting by transfer station staff.
- **Glass** capture is relatively low, there should be potential to increase this to as much as 50% with strong education and information for households on separating flat glass in particular for recycling.
- If the recovery rates anticipated are achieved this could result in over 30% recovery rate at across kerbside and other streams. Key contributors to the increased recovery are organic materials (requiring an increased focus on capture), paper/card and plastics.

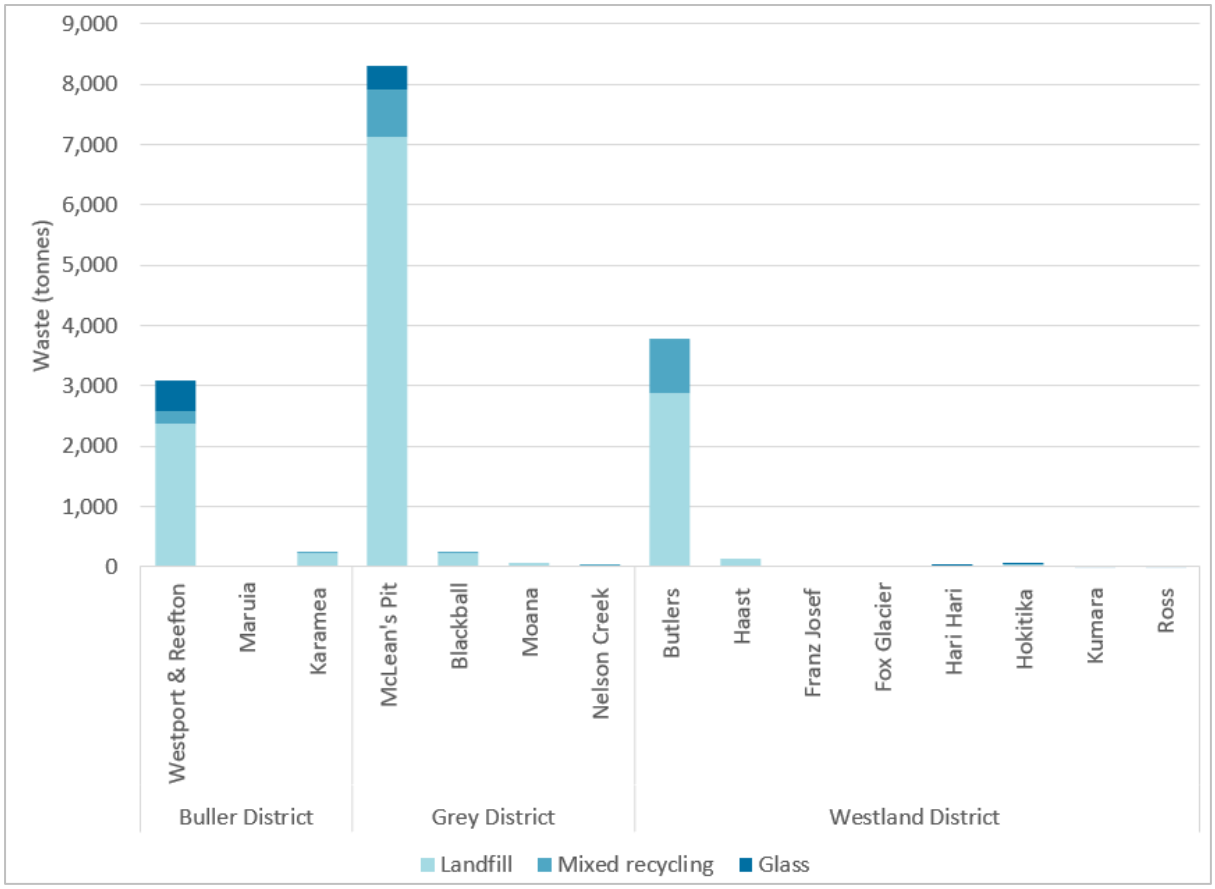

Figure 5.6: Regional waste volumes and diversion by district facility (2022/23).

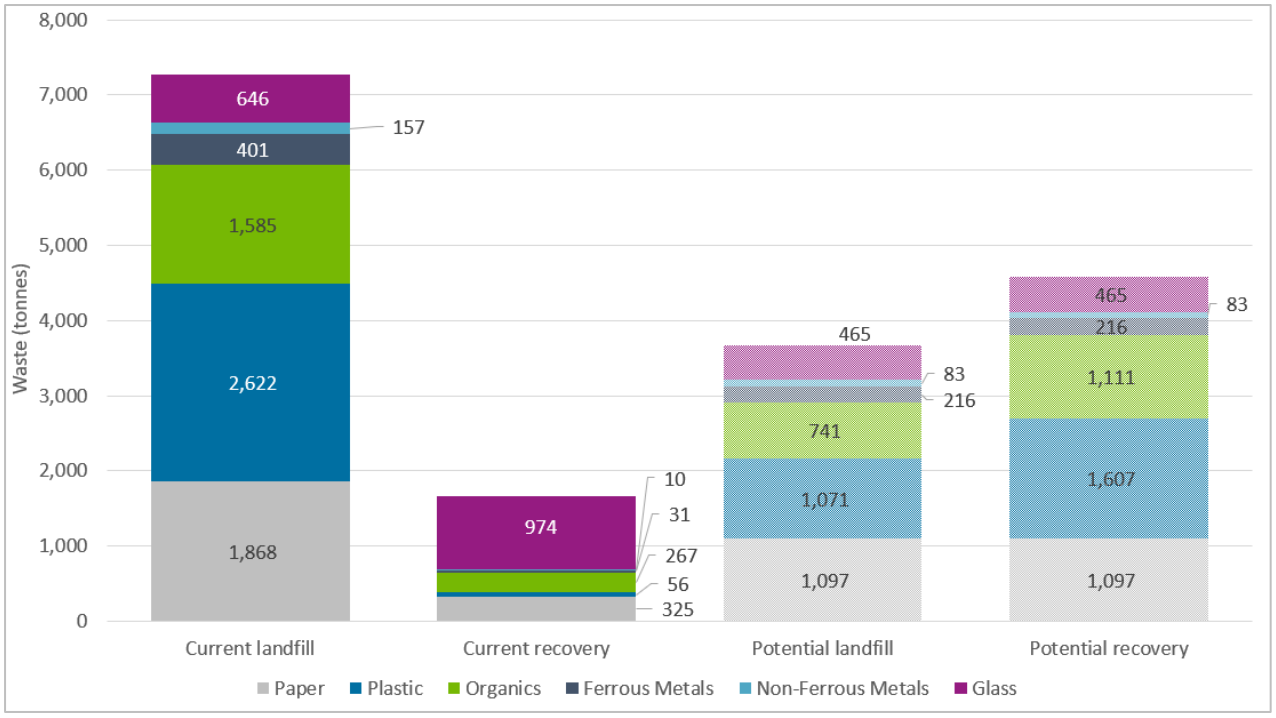

Figure 5.7: Current and potential transfer station material capture.

Tourism waste

As detailed in Section 3.1, the West Coast receives on average 160,000 visitors transiting through the region monthly which is four times greater than the population of the region. Therefore, it is important that the regional waste data explores the contribution from visitors to the West Coast.

Although there is limited data regarding waste from tourism in New Zealand, a study on the implications of increasing demand on infrastructure in Westland as a result of tourism was conducted in 2001 by Lincoln University. The study found that 3 tonnes of solid waste is generated per 1,000 visitor nights in Westland (3kg of waste per visitor per night). It is assumed that this is a combination of food waste within the hospitality sector and general waste from consumption of goods and services whilst travelling.

Due to greater general awareness of waste management through education and communication campaigns in New Zealand, we have reduced this value to 2 tonnes of solid waste per 1,000 nights (2 kg of waste per visitor per night). Applying this theory, it is estimated that visitors contribute to ~26% of total waste per year (Table 5.3).

Table 5.3: Visitor waste per year

Year	Visitor numbers	Estimated waste generation (tonnes)	% of total waste from region
2021/22	1,970,659	4,012	26%
2022/23	2,172,595	4,382	27%

As tourism within the region significantly contributes to the consumption of goods and services it is important to account for the waste generation from visitors in the region alongside residents. By applying the regional diversion rates to the visitor waste data for 2021/22 and 2022/23 we can see a more accurate representation of residential waste generation compared to visitor waste generation (Figure 5.8).

Figure 5.8: Visitor and residential waste generation.

6 System performance

This section provides a range of indicators that can be used as a benchmark for the performance of the West Coast's waste management system.

Since 2018/19 waste disposed of to landfill per person in the West Coast has increased by 102 kg but appears to have remained around 540 kg per person for the last three years (Figure 6.1). When removing the visitor waste data from this assessment the total disposal and recovery per capita decreases to 400 kg per person (this is further detailed in Figure 7.2).

When comparing the West Coast as a region to other district councils of similar context (Figure 6.2) the recovery rate is at the lower end of the range for New Zealand. This reflects a reliance on kerbside recycling (no organic materials collection) and lower end capture rates for recyclable or recoverable materials at transfer stations.

This may be due to the greater space availability in urban areas (larger sections than other urban areas) allowing households to be managing some of their waste onsite by composting, burying, or burning their waste. This, alongside some gaps in the data, may mean the actual waste per capita is higher than the current data shows.

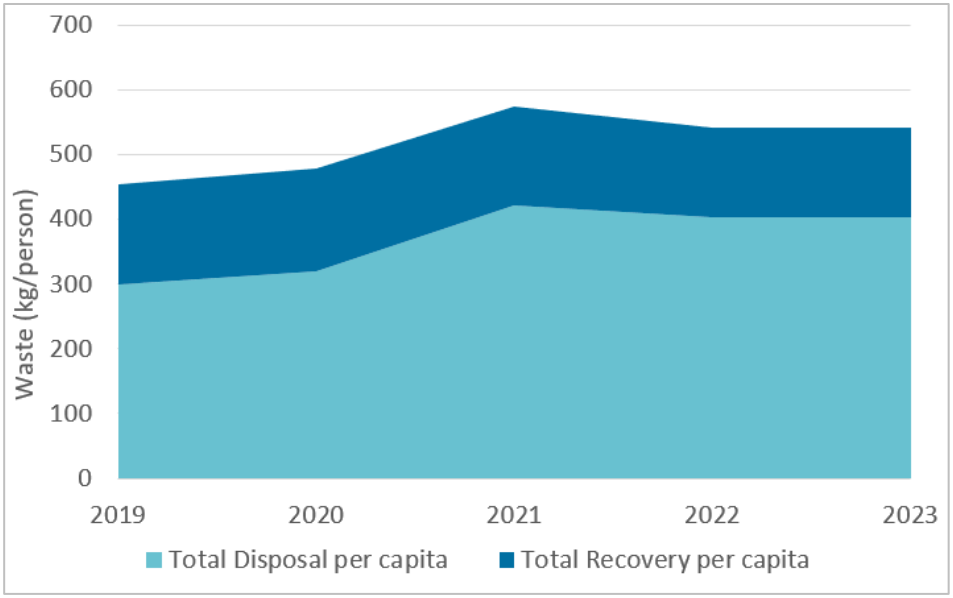

Figure 6.1: Regional waste and recovery per capita.

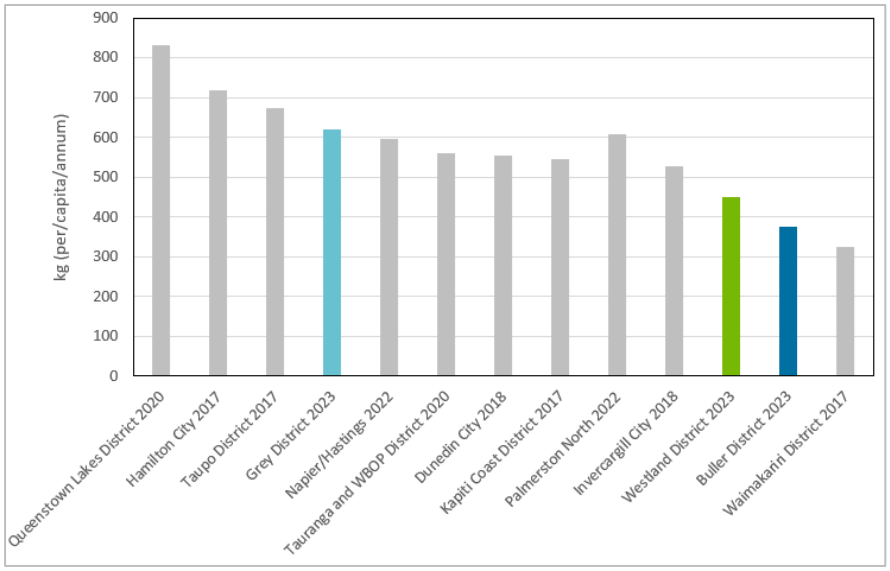

Figure 6.2: Waste per capita relative to other Councils.

6.1 Household waste composition

Comparing the composition of household waste in the West Coast with similar councils (Table 6.1), the following insights are apparent:

1. Households in the West Coast dispose of relatively less organic materials in landfill compared to similar districts.
2. Recycling quantities in household rubbish are relatively higher (paper, plastic, metals, and glass).
3. The quantities of building and industrial materials (rubble, concrete, timber, and rubber) are relatively higher than other Councils.

Table 6.1: Household kerbside material composition relative to similar Councils

Material	Buller District Council *	Ōpōtiki District Council	Manawatū District Council	Central Hawkes Bay District Council
Paper	13%	14%	13.9%	9.0%
Plastics	18%	12%	14.5%	12.1%
Putrescibles	30%	50%	45.1%	53.1%
Ferrous metals	0.4%	2%	2.7%	2.6%
Non-ferrous metals	0.2%	9%	2%	1%
Glass	2%	3%	3%	5.4%
Textiles	7%	4%	5%	4.8%
Nappies and Sanitary	21%	1%	8%	6.0%
Rubble, concrete, etc.	2%	2%	2%	2.9%
Timber	0%	1%	2%	1.0%
Rubber	3%	0%	1%	0.2%
Potentially hazardous	1%	1%	1%	1.2%
Total	100%	100%	100%	100.0%

(*) It is assumed that Buller kerbside material composition is representative of all West Coast District Councils kerbside waste compositions. This data is from the 2017 SWAP conducted at Westport Transfer Station.

6.2 Contamination

Contamination of collected recyclables with non-recyclable items is an ongoing issue across the region. Buller District has been tracking contamination in the kerbside recycling bins since 2021 which demonstrates an average level of contamination to be 30%. A similar situation is expected to be the case in Grey and Westland. Contamination levels increased for Grey as the district transitioned from mixed recycling which included glass to a single source glass collection in 2021/22.

Limited data is available on contamination which makes it difficult to track progress. However, the region recognises the issue and currently focus efforts on communication of good recycling practices in an effort to decrease the contamination rates.

6.3 Review of the 2018 WMMP

The last WMMP for West Coast Region was prepared in 2018. The WMA requires that each Waste Assessment include a review of the last WMMP, including an assessment of data, key issues from the last WMMP, any other issues not addressed, and progress on the action plan from the last WMMP.

The 2018 WMMP has a vision to deliver community benefits and reduce waste.

There are three overarching goals, to:

- Avoid and reduce waste where we can.
- Manage waste responsibly.
- Maximise community benefit.

Under these goals there are seven objectives and 10 targets. Table 6.2 shows progress against these targets over the past WMMP period.

Key issues

The key issues identified in the 2018 WMMP are summarised in the table below. It is helpful to consider progress against these issues, as not all were carried forward into targets within the 2018 WMMP. Key issues in the current period are discuss in Section 7.2.

Table 6.2: Progress against key issues in the 2018 WMMP

Issue/opportunity (2018 WMMP)	Comment on progress (from 2018 to present)
Waste Infrastructure	
Transfer stations - there are variable services across the Region.	There continue to be variation in services provided.
There is a lack of consistency in services for visitors to the Region.	Some services have since been removed – educational services are now the focus.
There are three MRFs in the Region sorting similar materials.	There are three MRFs which are referred to as Transfer Stations and Recycling Centres in the Region (Westport, McLean's Recycling Centre and Hokitika).
The two major landfills in the Region are close to each other.	This continues to be true; McLeans Pit is located 65 km from Butlers Landfill.
Disposal costs are relatively high, but likely reasonable in light of scale and transport distances.	This continues to be true. The cost of disposal at the landfills are detailed in Appendix C.

Issue/opportunity (2018 WMMP)	Comment on progress (from 2018 to present)
There are limited services for commercial and construction waste, with limited information available regarding diversion activity focussed on these waste streams.	Feasibility studies for recovery of construction and demolition waste and organics material are underway.
Lack of collections for glass in Westland District and issues with glass contamination in Grey District.	A new waste services contract will provide for glass collection in Westland District in 2025. Glass contamination is no longer a key issue for Grey District.
Waste data	
There is a mix of volume-based estimates and measured weights.	Since the 2018 WMMP, some sites have had weighbridges installed so data collection has significantly improved, but still has room for more improvement. Waste data consistency and data collection can be addressed through waste contractors. Waste services contracts are being reviewed in all districts and will incorporate the provision of quality and accurate data and reporting in line with expectations of central government.
The source of waste is not always clear.	
There is limited data on service areas, set out rate or participation rates for kerbside collection.	
The data regarding quantity of waste collected or processed is not complete.	

Targets

As discussed earlier, the Regional WMMP (2018) set out a range of objectives and targets outlined in Appendix A.

This section looks at the progress the region has made against these targets. The shading for each council shows the current achievement status; green is achieved/on track, orange is partially achieved, and grey is not progressed/decision not to continue.

Table 6.3: Progress on 2018 WMMP targets

Target	Indicator	2018 WMMP target	2022/23 progress			
			Buller	Grey	Westland	West Coast Region
1.1 To maintain or reduce the total quantity of waste disposed of to landfill from the West Coast on a per capita basis	Waste disposed to landfill <300 kg per person each year.	340	295	522	344	402
2.1 Increase in the proportion of material captured for recycling at kerbside and transfer stations.	Kerbside recycling > 35% by 2025	29%	40%	27%	19%	29%
	Recycling at Transfer stations > 50% by 2025	27%	22%	13%	24%	18%
2.2 Establish simple and effective recycling services for visitors to the West Coast Region.	Establishfive5 landfill waste and recycling depots at key visitor locations on the West Coast by 2022. Pilot with two facilities in Buller District followed by the remainder of the Region.	N/A	Three facilities established in 2019, two of these have been removed due to high levels of contamination.	Preston Road Recycling Centre was established and is operational and well utilised by the community.	N/A	N/A

Target	Indicator	2018 WMMP target	2022/23 progress			
			Buller	Grey	Westland	West Coast Region
3.1 Satisfaction with kerbside collection and transfer station services.	% resident and visitor satisfaction	> 85%	Transfer station customer survey takes place. The results of the 2021 survey show that 78% of respondents think the ease of use for the site is 'very good' or 'fairly good'. An overall satisfaction question has not been asked.	Resident satisfaction is tracked via Grey Annual Reports. The 2022/23 results show 80% residents' satisfaction. Visitor satisfaction is not currently tracked.	Latest survey results (2022) show 72% overall satisfaction of kerbside collection service. Note: Visitor satisfaction is not currently tracked.	There is room for improvement to ensure questions are consistent with that of Grey and Westland, and to track each year.
4.1 Reduction in illegal dumping incidents and quantity of material illegally dumped in the West Coast Region.	Reduced quantity of illegally dumped waste. Reduced number of incidents of illegal dumping.	Quantity of illegally dumped waste < 2016/17 figure.	No data has been collected.	161 complaints of illegal dumping received from January 2020 to January 2024. The data is not consistently tracked over time.	Annually, approximately 15 incidents are reported to Council. This is tracked through Council's Customer Service Request system.	Illegal dumping continues to be an issue for the region. There is a lack of data detailing how large the issue is in each district.
5.1 To publish a summary of available data on waste generation and management with each annual report.	Summary data published in Annual Report.	N/A	Waste data is not published in the Annual Reports.	% of waste diversion from landfill is reported in the Annual Reports.	Volumes of waste to landfill is reported in the Annual Reports.	N/A
	To create a grant scheme to support new initiatives to reduce waste.	N/A	Buller District Council has Community Grants and Community-Led Volunteer Revitalisation Funds	Grey District Council has information on their website of external grant schemes. There is currently no Council	Westland District Council has information on their website of external grant schemes. There is currently no	N/A

Target	Indicator	2018 WMMP target	2022/23 progress			
			Buller	Grey	Westland	West Coast Region
			available. It is not clear whether either of these funds have been used for solid waste projects.	funded grant for solid waste activities.	Council funded grant for solid waste activities.	
6.1 Schools programmes supported by Council	Support the Enviroschools programme each year.	N/A	Seven Enviroschools events are run annually.	Five Enviroschools events are run annually.	Eight Enviroschools events are run annually. Supports Paper4Trees.	N/A
6.2 Council (or contractors) promote waste minimisation at events in the Region.	Councils promote waste minimisation at > five events in the Region each year.	N/A	Councils are promoting waste minimisation at local events. There is room for improvement as there is not a system for tracking how many events each Council is attending or supporting.			
6.3 Inform and support West Coast residents and businesses on waste minimisation opportunities.	Information made available and regularly updated on Council websites.	N/A	There is room for improvement to ensure information is consistent across all waste webpages, and regionally where appropriate.			
7.1 Work with others to influence national policy and action on waste minimisation and management.	N/A	N/A	• Participation in WasteMINZ events and TAO forum • Working within LGNZ forums			

7 Forecast of future demand

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

- Increasing costs of waste disposal to landfill resulting from the waste levy expansion and emissions trading scheme.
- Changes resulting from Te Rautaki Para including potential changes to the WMA, and requirements for territorial authorities.
- The introduction of product stewardship schemes.
- Activities and policy resulting from the second emissions reduction plan.
- Changes to forestry slash removal requirements resulting from Cyclone Gabrielle.
- Increased private sector capacity to recycle and reprocess materials.
- Changes to markets for materials.
- Economic development in the region.

7.1 Forward projections

Forecasts of waste 'generated' have been developed using population projections, annual visitor data, historic waste quantities and the specific factors relevant to the district (Figure 7.1).

As discussed in Section 6, waste per capita in the region is steadily increasing. Using the current percentage increases in landfill waste and recovery volumes year on year with no changes to the current waste services and behaviours in the region, landfill waste per capita is set to increase by 5% per year and recovery is set to increase by 6% per year.

Based on these figures (removing visitor waste data) waste generation per person is likely to exceed 450 kg by 2043 (Figure 7.2). With a projected population of 32,490 in 2043[45], and similar visitor numbers, the total waste generated (landfill waste and recycling) will exceed 20,000 tonnes per year.

Alongside Council giving their best efforts on waste minimisation and recovery initiatives, to see additional gains it is important for partnerships with private sector and the community to be built and utilised to reach and impact waste streams which Council has little to no influence or control over.

There are several factors which create significant uncertainty in the forecasts and these need to be considered in any decisions made. For example, unknown quantities of waste are generated on rural properties in the region and are assumed to be dealt with by farm dumps and burning farm waste. With the current (regional and national) focus on responsible rural waste management it is possible there will be an increase in commercial quantities of rural

[45] Population data taken from District Council Long Term Plans (LTPs).

waste such as plastic wrap, chemical containers and domestic waste being disposed of at the transfer stations. Other factors impacting future waste generation include:

- The impact of kerbside standardisation on waste disposed of via the transfer station network.
- The impact of varying economic activity in the region including mining and agriculture (dairy farming).

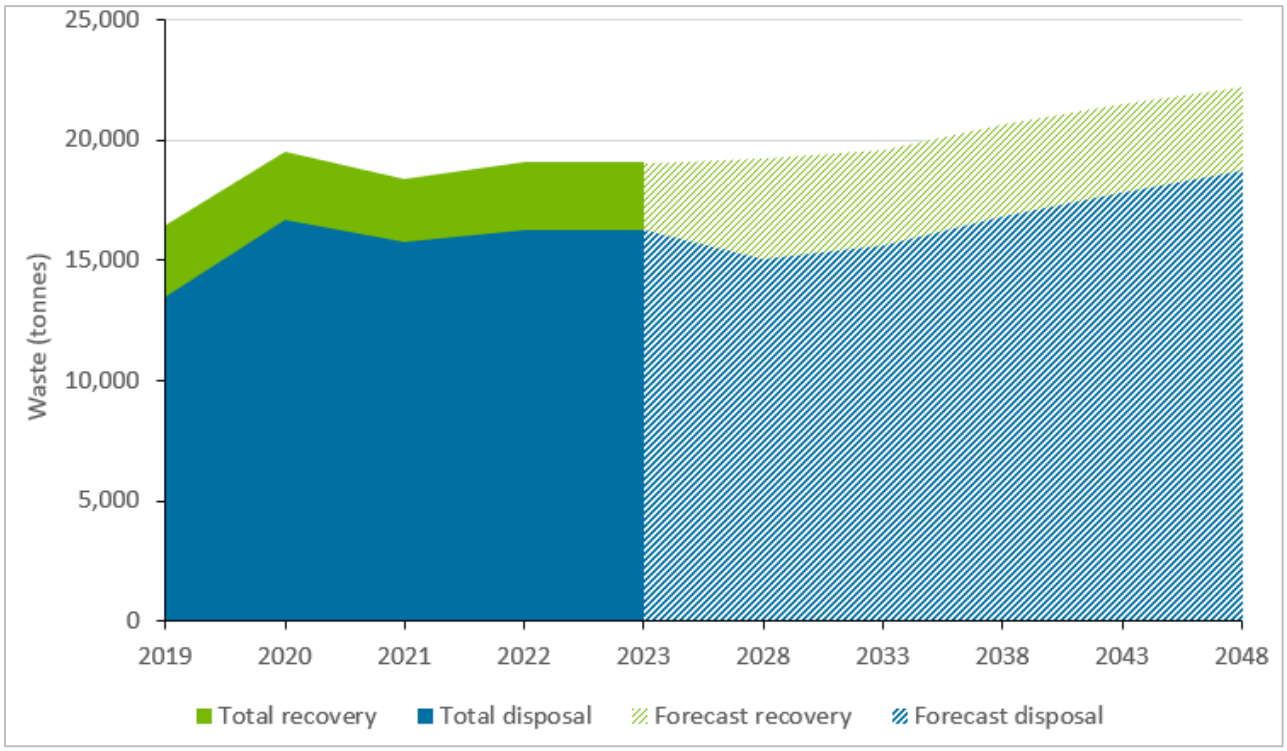

Figure 7.1: Future forecast waste generation based on population forecast.

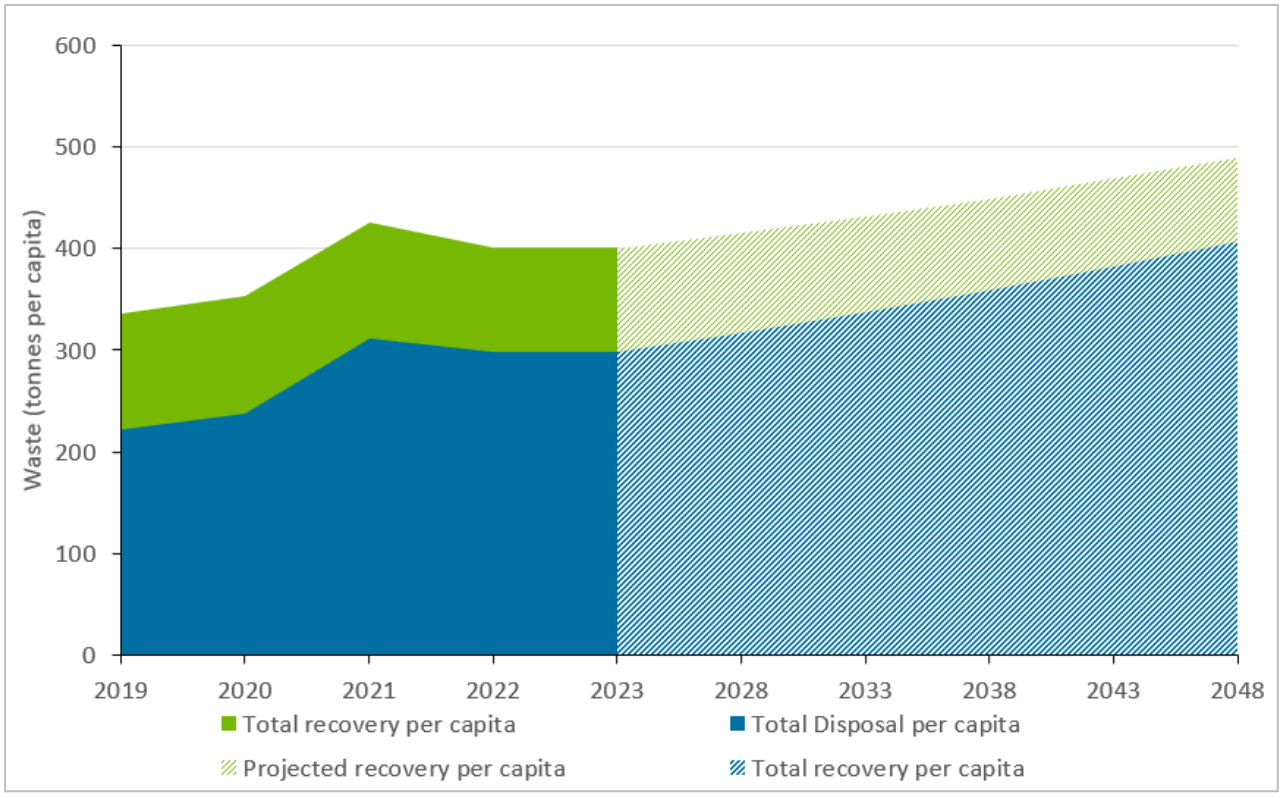

Figure 7.2: Future forecast waste generation per capita based on population forecast (visitor waste estimations excluded).

7.2 Challenges and opportunities

The aim of waste planning at a territorial authority level is to achieve effective and efficient waste management and minimisation. Using the available information, the key waste issues which should be addressed in the WMMP are listed below. These can be compared with the 2018 challenges and opportunities faced in Table 7.1.

- Continued, or enhanced, regional collaboration creates an opportunity to boost economies of scale and support a lot of the following opportunities/challenges.
- Affordability of meeting the future national targets is an increasing challenge for the West Coast councils, partly due to low population density.
- Streamlining data collection across all Council services.
- There is considerable opportunity to increase the capture of materials (specifically paper, plastic, metals, and organic materials) for diversion.
- Streamlining kerbside collections with all Councils offering the same service, and planning for new services as required, in line with the national kerbside standardisation. We recognise that work is currently underway to increase recovery from kerbside through the combined procurement work with Grey and Westland.
- Increasing the availability of information regarding waste diversion, infrastructure, and current performance to rate payers and members of the public online and in other methods to increase buy-in.
- Focus on sectors likely to generate more waste in the future including:
  - Agricultural waste – ensuring farmers make informed decisions on waste management and appropriate services for their sector.
  - Mining waste – considering the increases in waste volumes and types from the industry.
- Reporting of emissions associated with waste services and management does not currently take place. As part of the National Strategy tracking of this data will need to start taking place.
- Education and behaviour change are important to reduce the generation of materials, enhance the use of existing infrastructure, improve the capture of materials for recycling and recovery, address contamination in recycling and illegal dumping.
- There is currently limited information available on contamination in kerbside recycling which makes it difficult to track progress. Work is required to record this data and understand underlying barriers to recycling well, alongside leveraging national policy change such as alignment with national standardisation of what is collected for recycling.
- Waste from tourism is expected to increase therefore work to support the procurement of goods and consumables from tourism providers and careful planning around communication and infrastructure available to tourists to encourage diversion of waste is essential to successful recovery in the region, in particular Westland.

- There is no disposal facility (landfill) in Buller District which creates a challenge as landfill waste is transported out of region to Nelson. There is also a lack of hardfill and hazardous waste facilities in Buller District.

Table 7.1: Challenges, opportunities, and possible solutions from 2018 WMMP

Challenge	Opportunity
Data collection is misaligned and patchy in some waste areas.	To streamline data collection across all contractors, Council, and sites – aim for consistency and alignment across the region.
Significant amounts of Divertible Material are being sent to landfill.	Potential to increase the capture of materials (household recyclables, C&D waste, and organic materials) for diversion.
Lack of information available for ratepayers/members of the public on waste diversion, infrastructure, and current performance.	Opportunity to increase public engagement and awareness of resources that are available resulting in changes to behaviour.
Lack of focus on industrial waste.	Opportunity to engage different industry groups in the region to ensure recovery of waste streams at an industrial scale.
Emissions reporting for waste services and management is not currently taking place.	Opportunity to begin the conversation now to take residents and organisations on the journey.
In some districts there are high amounts of contamination in kerbside recycling. Limited data is available on contamination which makes it difficult to track progress.	Approach contamination, and other issues, through an educational and behaviour change lens. Strengthen these skills within Council. Improve data collection in this area.
Tourism waste is anticipated to increase.	Opportunity to forward plan for this increase and target communication campaigns in tourism hotspots. This may include additional Levy returns for projects, or a potential dispensation for tourism numbers.

Part 2

Where do we want to be?

8 Background

This section introduces the vision, goals, objectives, and targets (strategic framework) for waste management and minimisation in the West Coast. Together, the vision, goals, objectives, and targets establish the planning foundations for the waste management and minimisation plan (WMMP).

The relationship between Vision, Goals and Objectives is illustrated in Figure 8.1.

Figure 8.1: Vision, goals, objectives, and targets[46].

[46] Figure adapted from Waste Assessments and Waste Management and Minimisation Planning – A Guide for Territorial Authorities, MfE 2015.

8.1 Draft vision, goals, objectives, and targets

The West Coast Councils have aligned, in the context of their region, to the vision, goals, and objectives with that of the National Waste Strategy. This ensures the WMMP will be future proofed, and the region will be well positioned to adapt to national direction.

The vision, goals and objectives were drafted in a workshop with Council staff. The National Waste Strategy wording was used as a baseline, and amendments were made to ensure they reflect the West Coast. Particular attention was given to framing each element to ensure they would be easily understood.

Figure 8.2 outlines the vision, three goals and eight objectives which Buller, Grey and Westland District Councils have adopted.

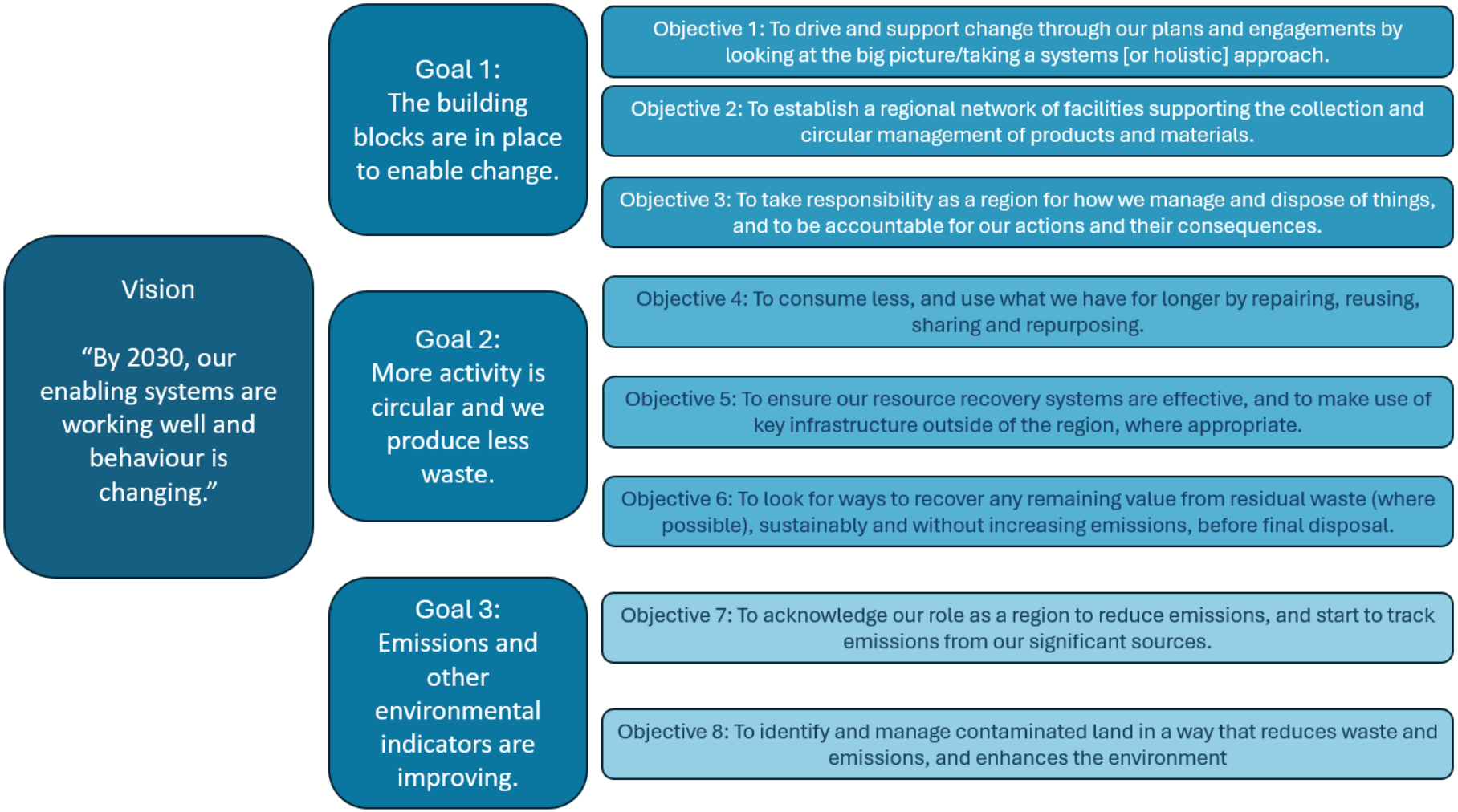

Figure 8.2: Vision, goals and objectives for the WMMP .

8.2 Proposed targets

The Councils set out targets in the 2018 WMMP, as outlined in Table 6.3. The decided approach was to review these targets, align under the appropriate updated goal and objective, and keep them similar where possible.

Where Councils had undertaken action on the target, regardless of whether this had been partially or fully met, the target was amended to take the next intuitive step.

As discussed in Section 8.1, the Councils have decided to align with the Aotearoa New Zealand Waste Strategy. The Strategy has the following national targets that the West Coast, alongside the rest of the country, must aim to achieving 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; and
- Waste Emissions: reduce the biogenic methane emissions from waste by at least 30 per cent.

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

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

In addition, targets should also align with Councils' Long Term Plan performance measures and Asset Management Plan key performance indicators. The targets in Table 8.1 align with these, and the expected performance of proposed priority actions outlined in Section 9.6 of this Waste Assessment.

It is important to recognise the challenges that the region will face in meeting the national targets, primarily due to the significant levels of transient visitors that travel through the region annually (as discussed in Section 5.3).

Waste Generation: reduce the amount of material entering the waste management system by 10 per cent per person

As discussed in Section 4, Councils have a limited amount of influence in the top levels of the waste hierarchy. Therefore, efforts may need to be focused on building partnerships and lobbying for action by central government.

Waste Disposal: reduce the amount of material that needs final disposal by 30 per cent per person

As discussed in Section 7, to meet this target Council must give their best efforts to waste minimisation and recovery initiatives, alongside building and fostering effective partnerships with private sector and the community to reach waste streams where Council has little to no influence or control over.

Waste Emissions: reduce the biogenic methane emissions from waste by at least 30 per cent

In 2022, 93.3 per cent of waste emissions were biogenic methane – largely generated by the decomposition of organic waste (such as

food, garden, wood, and paper waste). While waste contributes a small percentage of our total emissions, biogenic methane has a warming effect 28 times greater than carbon dioxide. As such national governments have a focus for District Councils to reduce the volume of organic waste entering landfills.

As not all landfills in New Zealand have the infrastructure to actively capture gases from waste, emissions are not currently measured. In this instance, Councils can estimate the emissions from their landfills through evidence-based estimations. Utilising landfill specific composition data (SWAP data) or combined national level Class 1 landfill data alongside the MfE emission factors for waste a high-level emission figure can be developed for the landfills in the West Coast. This will create a baseline for tracking progress against the 30% reduction target.

Table 8.1: Proposed targets

Target		Unit	2018	2022/23	Regional Target
Waste generation	Reduce the amount of material entering the waste management system by 10% per person by 2030*	kg per capita per annum	385.51	494	445 by 2030
Waste to landfill	Reduce the total waste tonnes per capita going to landfill by 30% per person by 2030*	kg per capita per annum	299.76	402	282 by 2030
	Reduce the total waste tonnes per dwelling going to landfill from the Council kerbside collection by 30% per person by 2030*	kg per dwelling per annum	575.63	573	401
Diversion of waste	Increase the amount of household waste diverted to recycling (Council provided kerbside collection only, excludes green waste) *	% diversion from landfill	37%	33%	30% by July 2026 40% by July 2028 50% by July 2030
	Reduce contamination of Council provided kerbside recycling.	% contamination	N/A	31%	TBC
Waste emissions	Increase organics capture at transfer station and kerbside (%) * *Organics capture includes food, garden, and timber waste streams.*	% diversion from landfill	N/A	4%	30% capture of organic material by 2030
	Reduce the biogenic methane emissions from waste by 2030 (CO_2e) *	% reduction of biogenic methane	N/A	TBC[47]	30% reduction
Customer satisfaction	Percentage of community satisfied with the solid waste service.	% satisfaction	N/A	72 – 82%	> 85% satisfaction
	Total number of complaints received about the Council's solid waste service	No. of complaints annually	N/A	N/A	< 50 complaints annually
Environmental health and safety	Maintain 100 per cent compliance with resource consent conditions for Council-operated solid waste district facilities.	% compliance	100%	100%	100% compliance

Note: targets marked with an (*) asterisk are requirements from Central Government.

[47] Councils are awaiting guidance from central government on the calculation of biogenic methane emissions from waste before a baseline is confirmed for the region.

Part 3

How are we going to get there?

9 Options identified

9.1 Introduction

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

This section summarises the identification and evaluation of options to meet the forecast demands of the region and to meet the goals and targets set out in Section 8. The process started by identifying a wide range of possible options, or 'possibilities,' and agreeing on a set of evaluation criteria. The list of 'possibilities' have then been evaluated against the criteria to identify priority options. The priority options from this assessment will be incorporated into the draft WMMP Action Plan.

For the West Coast region, the total quantity of waste generated is forecast to increase over the life of this plan as more residents utilise the council waste services offered and economic activity in the region increases. Actions which feed into the WMMP need to take account of these factors, while driving a reduction in total waste generated (whether recovered or landfilled) and a reduction waste disposed to landfill.

9.2 Identifying options

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

Ensuring the West Coast is in a good place to transition to a circular economy involves considering materials through their entire life cycle, through production, product design, use and disposal. Maximising the value of materials recovered through waste minimisation and management activities, and actively collaborating with the community and private sector, are important when making this transition. Figure 9.1 details the components of council's contribution to a circular economy with multiple elements in place to set strong foundations for success.

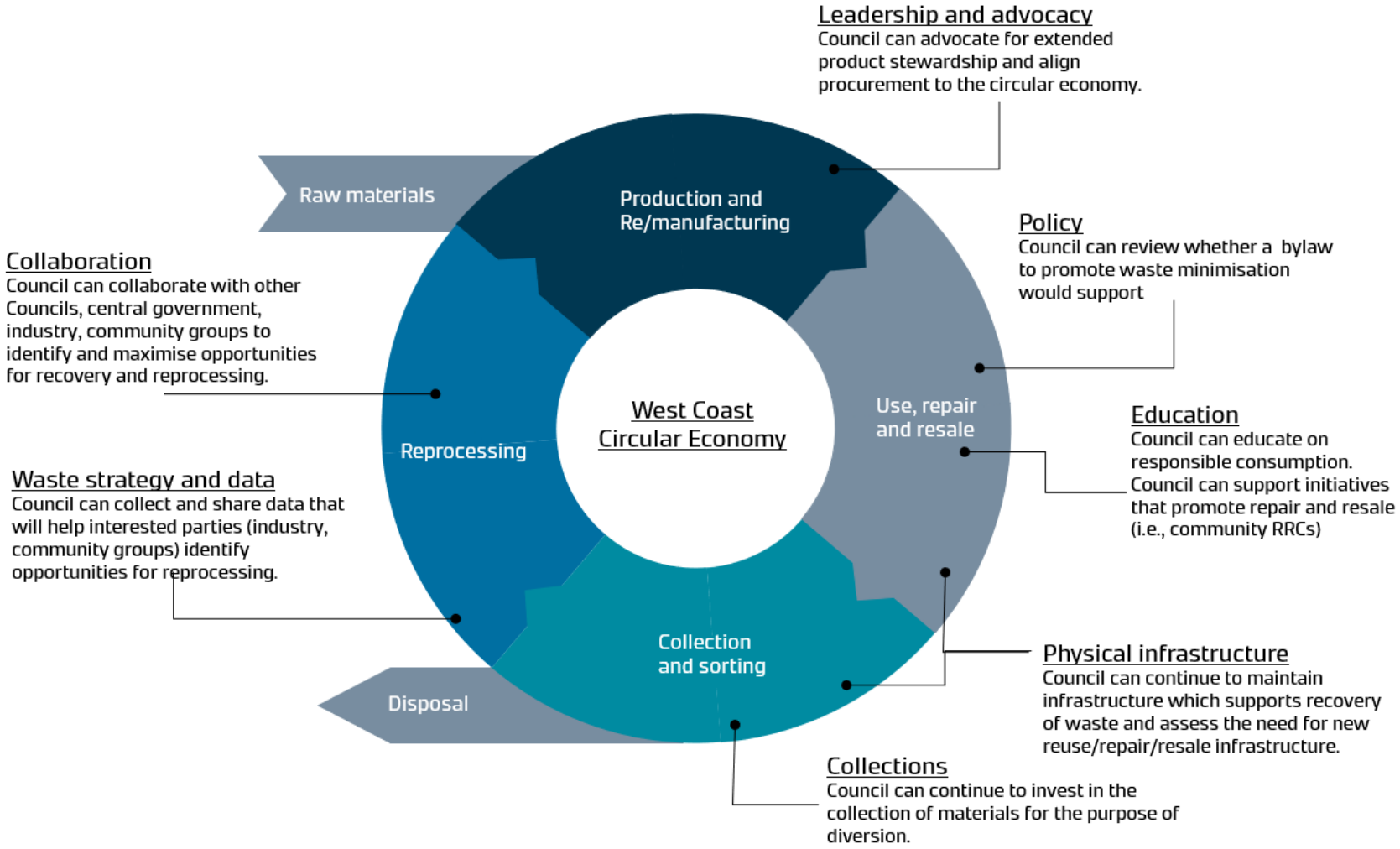

Figure 9.1: Components of Councils contribution to a circular economy in the West Coast.

9.3 Possibilities for the West Coast

From the assessment of Part One of this document, the Current Situation, key opportunities have been identified and could be implemented in a number of ways. This document refers to these as the Possibilities. These Possibilities build on existing, and already planned, activities.

To develop pathways for circularity in the West Coast and achieve effective change in each of the Focus Areas (Table 9.1), there would ideally be a combination of Possibilities covering:

- Policy (e.g., Central Government policy, district bylaws),
- Infrastructure (e.g., regional disposal facility, transfer stations, kerbside collection, signage) and
- Education (e.g. targeted education and behaviour change programmes)

The influence of national policy, local policy, infrastructure, and education sit across different areas of the circular economy (Figure 9.2).

Table 9.1: Possible options development in line with current and planned activities sets out a list of Possibilities, using this approach, with consideration is given to:

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

The list of Possibilities is tested against the applicability to the West Coast Region using the Evaluation Criteria in Section 9.4. This evaluation determines whether it will be a Priority Option.

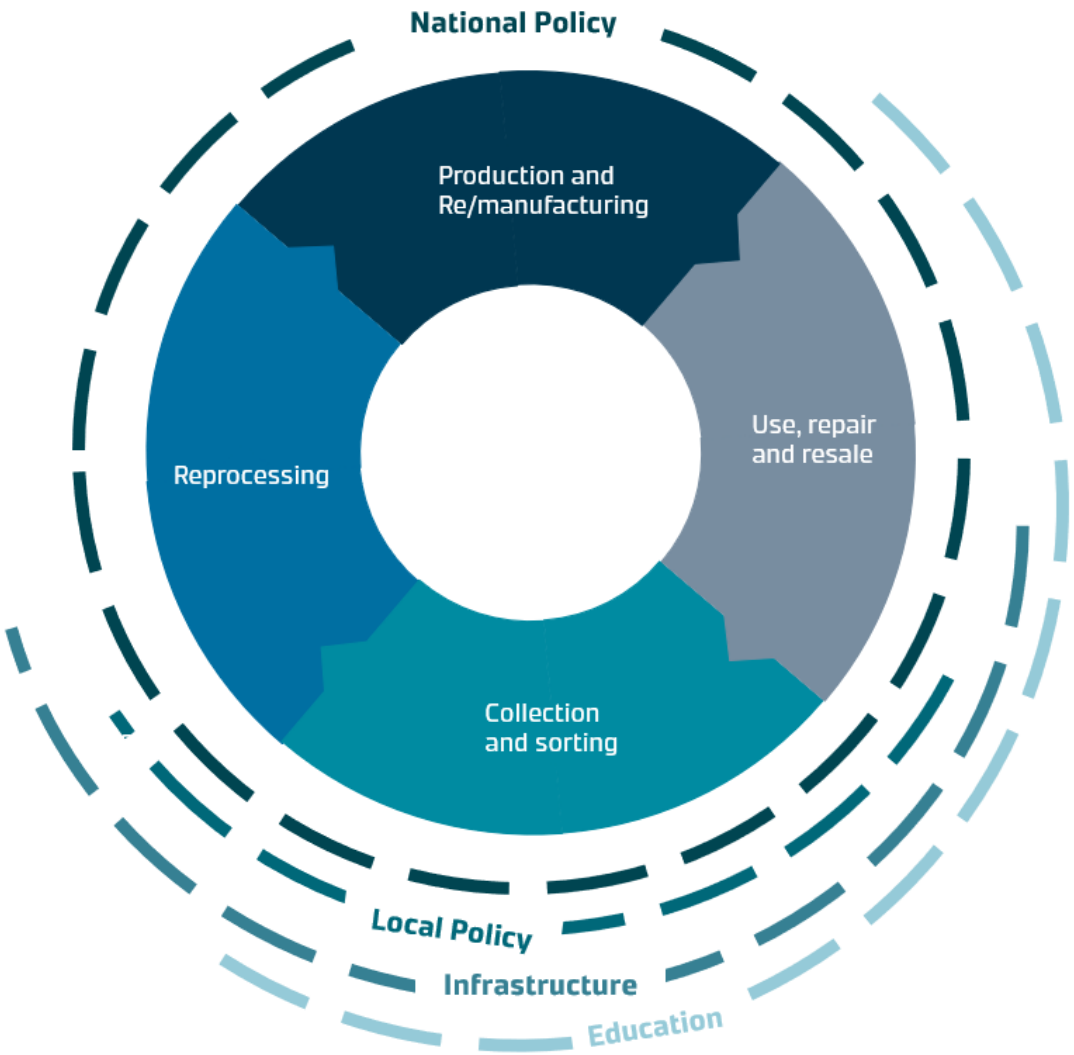

Figure 9.2: Level of influence of change levers in the circular economy framework.

Table 9.1: Possible options development in line with current and planned activities

Focus area / Key opportunity	Intervention	Current What is happening? (Nationally and regionally)	Planned future What is planned to happen? (Nationally and regionally)	Possibilities What opportunities are there to improve? (Possibilities in bold address multiple focus areas)
Contamination in kerbside recycling	Policy	• National standardisation for what is accepted for recycling at kerbside.	• The Proposed National Waste Data Framework will require more reporting on domestic kerbside contamination.	• Collaborate with local industry/organisations to establish hubs for collection of difficult materials/common contaminators of recycling e.g. Supermarkets. • Undertake a study on contamination in kerbside and public litter bins to establish problematic materials, causes for contamination and possible options to prevent contamination, these could include a demerit points system or RFID tags on bins to monitor repeat offenders. • Develop/update solid waste bylaw to strengthen enforcement.
	Infrastructure	• Kerbside recycling bin audits (through an app for Buller and Grey) and random spot checks by kerbside contractors (Buller and Westland). • MRF contamination data collected in Buller.	• N/A	• Investigate options to prevent contamination of glass colours (Westland). • Investigate solutions for high contamination in kerbside comingled recycling in Grey District Council. • Require that kerbside waste contractors to complete random spot checks on recycling bin compliance.
	Education	• Information sharing to public on contamination levels in kerbside bins. • Kerbside recycling bin audits with stickers for non-compliance.	• Kerbside recycling bin audit process plan in place through app in Grey.	• Collaborate with central government, local government, and non-government organisations to assess solutions to reduce contamination and explore opportunities for the West Coast to improve waste management. This could include joining nationwide forums e.g. WasteMINZ TAO Forum or connecting with the Sustainable Business Network. • Identify learnings from bin audits undertaken (by Council and contractors to Council) to identify materials which cause contamination. • Develop an educational programme of work focusing on behaviour change and information sharing to the community. • Utilise and/or build on national waste and behaviour change campaigns and/or collateral to promote waste diversion.
Environmental impacts – Reducing emissions and other environmental impacts associated with waste generation	Policy	• Monitoring of closed landfills in line with consent requirements. • Councils working with Health New Zealand - Te Whatu Ora, Te Tai o Poutini Hospital and Specialist Services to offer medical waste services.	• Remediation plan for Birchfield and Westport legacy Landfills (Buller).	• Investigate the most efficient way for Councils to report consistently on emissions associated with waste generation and management across the region. • Councils to continue to work with Health New Zealand - Te Whatu Ora, Te Tai o Poutini Hospital and Specialist Services to ensure medical waste is disposed of appropriately.
	Infrastructure	• N/A	• N/A	• Investigations into which Council owned closed/historic landfill sites require a remediation plan. • Develop resilience plans for current waste infrastructure and services. This could include collaborating with Civil Defence and other organisations to develop a regional Disaster Waste Management Plan. This will ensure processes in place for managing waste associated with natural disasters, and waste from earthquake prone buildings. • Investigate feasible landfill gas management options for McLeans and Butlers Landfills. Partner with organisations promoting emissions tracking e.g. Development West Coast, West Coast Climate Action Support. • Investigate the feasibility of a regional Disposal Facility/Landfill that could service the entire region.
	Education	• N/A	• N/A	• Promote and share existing tools, case studies and resources to support organisations in calculating their waste related emissions.

Focus area / Key opportunity	Intervention	Current What is happening? (Nationally and regionally)	Planned future What is planned to happen? (Nationally and regionally)	Possibilities What opportunities are there to improve? (Possibilities in bold address multiple focus areas)
Illegal dumping	Policy	• Grey District has a schedule of offences and fees that apply for littering or dumping.	• Litter Act legislation review.	• Collaborate within Council (internally), across Councils (regionally), and with organisations/industry (externally) to actively track illegal dumping and record data through existing processes, such as Request for Service system. • Investigate developing a financial assistance programme and penalty system to manage illegal dumping. This could include rebates/discounts for current resource recovery infrastructure or tracking in illegal dumping hotspots for penalties.
	Infrastructure	• Councils actively address illegal dumping activity including where possible identifying perpetrators and if required undertaking clean-up activity. • Residents report incidents of illegal dumping with Councils utilising services to collect and responsibly dispose of illegal dumped waste.	• Continued collection of illegal waste dumping when notified of occurrence.	• Investigate whether Council provide or partner to provide a bookable bulky waste collection service (e.g. for whiteware).
	Education	• Councils have illegal dumping web pages with information on the issue and education around this.	• N/A	• Information and education on the impacts of illegal dumping and options for unwanted materials - charity shops, reuse, Trade Me.
Industry waste management and uptake in schemes	Policy	• No specific policy on waste minimisation for construction sector.	• The Building Act amendments to include mandatory waste minimisation plans for all construction and demolition projects. • The Emissions Reduction Plan actions on construction waste (15.3.1). • Waste Strategy focus on organic material recovery, including timber from construction and demolition. • Landfill levy increase.	• Investigate and facilitate collaboration opportunities across the region with iwi, industry, businesses, community groups, utilising activities that are already established e.g., virtual/in person networking events, Council gardens etc. • Establish needs and barriers from industry to support waste reduction. This can be done through connecting with industry at existing events run by industry or Council. • Advocate and facilitate sector groups (e.g. C and D, Agricultural waste groups) to discuss problems and explore solutions. Utilise resources outside of the region and connect with other regional sector groups (e.g. Tradie breakfast).
	Infrastructure	• Agrecovery services are available across the region.	• In the process of setting up a Tyrewise collection point when the programme opens (September 2024), and promoting to encourage uptake (Westland and Buller) • WMF funded construction of C&D recovery arrangements at transfer stations across the region and coordinated management of construction waste materials. • Starting discussion for setting up soft plastics programme and agricultural plastics (Buller only)	• Reflect and investigate low uptake of existing product stewardship schemes in the region including Agrecovery, to apply learnings for new opportunities that emerge. • Investigate options for recovering high volumes of industry waste, with consideration of landfill longevity. Investigate whether Council want to facilitate additional Product Stewardship Schemes at their transfer stations.
	Education	• Educational resources available through private (commercial and not for profit) and public (council) organisations.	• Regional C&D waste engagement and education programme, with key audience as construction sector.	• N/A
Information and education – available to rate payers and members of the public	Policy	• N/A	• N/A	• Align survey questions across districts in resident satisfaction survey to allow for year-on-year and cross district comparison. • Conduct a resident satisfaction survey within Buller. • Consistently share waste recovery and diversion information in Councils Annual Reports.
	Infrastructure	• N/A	• N/A	• Investigate whether a grant for waste and resource recovery activities in the region can be developed between Councils (draft criteria for grant funding has been drafted). • Explore whether the community would like Councils to offer services or guidance such as waste audits to help organisations understand their waste generation better.

Focus area / Key opportunity	Intervention	Current What is happening? (Nationally and regionally)	Planned future What is planned to happen? (Nationally and regionally)	Possibilities What opportunities are there to improve? (Possibilities in bold address multiple focus areas)
	Education 	• Information on waste and recycling services in the region are available through the Council's websites and Facebook pages. • School education programmes supporting existing environmental education activities for schools, homes, and businesses. • Composting workshops take place in Buller.	• N/A	• Align information available on council websites regarding waste services, education, and policy where possible. For example, share good news stories in a consistent and regular manner, share activities from Enviroschools through Annual Reports, ensure the information on waste services available is up to date, consistent and easy to find online. • Collaborate with industry and community to create West Coast A-Z recycling & recovery directory to highlight circular services in the region. • Assess whether a regional Waste Minimisation / Behaviour Change role could be developed for the region. • Advocate for action and research promoting the top of the waste hierarchy (e.g. Product Stewardship Schemes, Right to Repair legislation and research into recovery options for difficult to manage waste streams).
Reduce generation – waste volumes decrease and increase in material recovery	Policy 	• Event waste management and minimisation plan for events (Buller). •	• Regulated product stewardship with six priority products. • Additional funding available through waste levy increases • Organic kerbside collection to become mandatory nationally by 2030. • The Proposed National Waste Data Framework will require more reporting on domestic kerbside and commercial organics. • Landfill levy increase.	• Investigate alternative options to manage waste streams / materials which take up most volume in the regions landfills and transfer stations. • Tourism Levy implemented for those staying in the region to cover the costs of infrastructure including waste assets and management.
	Infrastructure 	• Diversion trials e.g. Techcollect partnership (E-waste), small appliance recycling. • Diversion drop-offs: Polystyrene drop-off Mitre 10, Expol), household battery, plan pots. • Trialled recycle/waste stations at tourism hotspots across the West Coast – trial the approach in Buller District (North Beach, Punakaiki) and then roll out to other locations. • Reviewing the results from C&D feasibility study to assess the best options for C&D recovery in the region.	• C&D feasibility study – construction of facilities based on study recommendations. • Organics feasibility study. • Continued support for diversion partnerships. • Continue to support and promote product stewardship schemes through existing transfer stations where appropriate.	• Implement Resource Recovery Shops in the region's main transfer stations (Westport, McLean's Pit and Hokitika). • Review access to services e.g. rural residents, review transfer station openings times/days to assess whether they meet the needs of locals, visitors. • Investigate opportunities to provide cost-effective services for those not receiving a kerbside collection e.g. mobile solution etc. • Investigate consolidating MRF operations and options for glass (local processing and beneficial use). • Review the results from organics feasibility study to assess the best options for organic recovery in the region in line with central governments indicated direction. • Collaboratively investigate with the community and industry groups what potential reuse, share and repair services would be beneficial for the region, and the role of councils in this i.e., collaboration, support, encouragement. • Map out existing resource recovery work that is happening in the region including community-led initiatives and share and promote publicly.
	Education 	• Information available on all three district council websites to encourage waste reduction.	• Continue behavioural change plan and programme set to continue.	• Utilise council websites to link to existing resources to help plan and manage material management e.g. BRANZ and REBRI for the construction sector. • Investigate the volumes and impacts of waste from tourism, which can feed into a feasibility study for how to manage waste from tourism in the region.
Streamline data collection across all contractors, Council, and sites	Policy 	• N/A	• Joint waste services contract outlines data collection consistent with requirements.	• Investigate / support data collection on waste diversion through other sources e.g., reuse shops, food banks etc
	Infrastructure	• Contractors are collecting data from kerbside and waste facilities (landfills and Resource Centres).	• Standardisation across kerbside delivery (regional approach) – joint waste services.	• Align services available at transfer stations across the region.

Focus area / Key opportunity	Intervention	Current What is happening? (Nationally and regionally)	Planned future What is planned to happen? (Nationally and regionally)	Possibilities What opportunities are there to improve? (Possibilities in bold address multiple focus areas)
			• From 1 July 2024 all waste facility operators are required to collect data and report on the source of the waste they receive through MfE.	• Establish a template for reporting consistency across the region for data which is currently collected but not mandated therefore has no set template and lacks consistency across the region (e.g. contamination, emissions reporting). • Investigate data collection from difficult waste streams often managed by private contractors (e.g. hazardous, EOL vehicles, medical) • Collect tonnage data at Transfer stations from residential drop off and commercial drop off from different sectors to help track trends for future analysis.
	Education	• N/A	• N/A	• N/A
Streamline kerbside collections - all councils to offer the same service in line MfE's kerbside standardisation	Policy	• Standardisation of kerbside services nationwide implemented 1st February 2024.	• N/A	• All councils to have the same waste contractor which reports at district level streamlining data capture.
	Infrastructure	• Weighbridges are installed at Westport, Reefton, and Hokitika Transfer Station, and Karamea and McLeans Pit Landfills to collect waste data. •	• Standardisation across kerbside delivery (regional approach) – consistent waste services. • Possible organic materials collection as per kerbside standardisation •	• Investigation into combining Grey District and northern Westland District refuse disposal in the medium term (as cells at Butlers and/or McLean's Landfills are completed). *Option carried from 2018 WMMP.*
	Education	• N/A	• N/A	• Coordinated activity on contamination (linked into national action and information)

9.4 Prioritising options

Workshop with Council Staff

To assess the feasibility of the Possibilities listed in Table 9.1, a workshop took place with Council Staff representing the waste and resource recovery teams for each district. The focus areas were reviewed to ensure the key themes were correct with the challenges and opportunities the region currently faces. The current and planned activities under each focus area was then reviewed to ensure all the work to date had been captured. A review of the Possibilities then took place by focus area, with Council Staff amending specific actions required by the Possibility and adding additional options where required.

Evaluation criteria

As not all the Possibilities can be implemented within budget and resource constraints, nine Evaluation Criteria (explained in Appendix D) have been developed to assist Councils' decision making on priority areas for investment and confirm what actions can be proposed in the draft Regional WMMP. The criteria have been developed to align with the West Coast's vision and goals and have been equally weighted for this analysis.

The Evaluation Criteria include:

1 Cost to Council (economically viable)
2 Accessibility and affordability
3 Impact on the wider environment
4 Social/cultural outcomes
5 Partnership and collaboration
6 Recovery and markets
7 Responsible consumption
8 Appropriate for West Coast/regional lens
9 Technical risk

Each Possibility is rated as either high, medium, or low as per the outcomes which can be achieved for each criterion (Table 9.2). They are colour-coded using a traffic light system (i.e., 'low' is red, 'medium' is orange and 'high' is green) with a weighting applied to advice which of the possibilities are in line with the West Coast's vision and goals.

Those which rate higher (17+) show greater alignment with the vision and goals and therefore, is recommended to be considered as an option for action in the WMMP (Table 9.3).

Table 9.2: Rating and weighting key

Colour	Rating	Weighting
	High	3
	Medium	2
	Low	1

Table 9.3: Overall prioritisation guide

Colour	Overall score	Priority
	22 to 27	Option recommended to be taken forward as priority option in the WMMP.
	17 to 21	Options to be considered to be taken forward into WMMP.
	9 to 16	Options may not be taken forward into the next WMMP but may be considered for future WMMPs or after the priority actions have been achieved.

9.5 Evaluation

The evaluation of all 'possibilities' from Table Appendix E.1 are detailed in Appendix E.

9.6 Priority options and actions

Once the list of Possibilities was evaluated (Appendix E), a list of Priority Options emerged. Priority Options were defined as those with a score >17 which demonstrate strong alignment with the region's objectives and goals.

The Shortlist Assessment details the Option Theme (where the options complement or align with other options these have been grouped), Focus Area (initial issue or challenge identified in 7.2) and the Option (which will further support these activities, and ultimately lead towards circular outcomes for the region).

The objectives which the Priority Options are assessed against during the Shortlist Assessment include:

- Objective 1 (OB 1): To drive and support change through our plans and engagements by looking at the big picture/taking a systems [or holistic] approach.
- Objective 2 (OB 2): To establish a regional network of facilities supporting the collection and circular management of products and materials.
- Objective 3 (OB 3): To take responsibility as a region for how we manage and dispose of things, and to be accountable for our actions and their consequences.
- Objective 4 (OB 4): To consume less, and use what we have for longer by repairing, reusing, sharing, and repurposing.
- Objective 5 (OB 5): To ensure our resource recovery systems are effective, and to make use of key infrastructure outside of the region, where appropriate.
- Objective 6 (OB 6): To look for ways to recover any remaining value from residual waste (where possible), sustainably and without increasing emission, before final disposal.
- Objective 7 (OB 7): To acknowledge our role as a region to reduce emissions and start to track emissions from our significant sources.

- Objective 8 (OB 8): To identify and manage contaminated land in a way that reduces waste and emissions and enhances the environment.

Council's intended role is also detailed in the Shortlist Assessment. These roles include:

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

Table 9.4: Shortlist Assessment (priority options)

	Option theme	Focus area	Options	Regional (R) or district specific (BDC, GDC, WDC)	Alignment with objectives	Councils intended role(s)
Top Options	Creating partnerships	Industry waste	Advocate and facilitate sector groups (e.g. C&D, Agricultural waste groups) to discuss problems and explore solutions. Utilise resources outside of the region and connect with other regional sector groups (e.g. Tradie breakfast)	R	OB1, OB3	Advocate/promote Enable Advisor
		Contamination in kerbside	Collaborate with central government, local government, and non-government organisations to assess solutions to reduce contamination and explore opportunities for the West Coast to improve waste management. This could include joining nationwide forums e.g. WasteMINZ TAO Forum or connecting with the Sustainable Business Network.	R	OB1, OB3, OB5	Advocate/promote Enable Advisor
		Industry waste	Investigate and facilitate collaboration opportunities across the region with iwi, industry, businesses, community groups, utilising activities that are already established e.g., virtual/in person networking events, Council gardens etc.	R	OB1, OB3, OB5	Collaborator/connector Enabler
	Communicate and share circular economy initiatives	Reduce generation	Utilise council websites to link to existing resources to help plan and manage material management e.g. BRANZ and REBRI for the construction sector.	R	OB3, OB6	Service provider Advisor

	Option theme	Focus area	Options	Regional (R) or district specific (BDC, GDC, WDC)	Alignment with objectives	Councils intended role(s)
		Contamination in kerbside	Develop an educational programme of work focusing on behaviour change and information sharing to the community.	R	OB1, OB3, OB6	Service provider Advisor
		Contamination in kerbside	Utilise and/or build on national waste and behaviour change campaigns and/or collateral to promote waste diversion.	R	OB3, OB6	Service provider Advisor
	Policy development	Contamination in kerbside	Develop solid waste bylaw to strengthen enforcement.	R	OB1, OB3, OB4, OB6, OB7	Regulator
		Information and education	Investigate whether a grant for waste and resource recovery activities in the region can be developed between Councils.	R	OB3, OB4	Regulator
		Reduce generation	Tourism Levy implemented for those staying in the region to cover the costs of infrastructure including waste assets and management.	R	OB5, OB6	Advocate Regulator Advisor
	Product Stewardship	Information and education	Advocate for action and research promoting the top of the waste hierarchy (e.g. Product Stewardship Schemes, Right to Repair legislation and research into recovery options for difficult to manage waste streams).	R	OB2, OB3, OB6	Advocate/promote Enable Collaborator/connector
		Industry waste	Investigate whether Council want to facilitate Product Stewardship Schemes at their transfer stations e.g. Tyrewise collection point when the programme opens, promoting the programmes to encourage uptake.	R	OB2, OB3, OB6	Enable Advisor

	Option theme	Focus area	Options	Regional (R) or district specific (BDC, GDC, WDC)	Alignment with objectives	Councils intended role(s)
		Reduce generation	Continue to support and promote product stewardship schemes through existing transfer stations where appropriate.	R	OB2, OB3, OB6	Advocate/promote Enable Collaborator/connector
	Making diversion easy	Streamline data collection	Align services available at transfer stations across the region.	R	OB2, OB5	Service provider Enabler
		Reduce generation	Investigate alternative options to manage waste streams / materials which take up most volume in the regions landfills and transfer stations.	R	OB1, OB2, OB5	Advisor
		Reduce generation	Review the results from C&D feasibility study to assess the best options for C&D recovery in the region (subject to feasibility study)	R	OB2, OB3, OB4, OB6, OB7	Enable Advisor
		Reduce generation	Review the results from organics feasibility study to assess the best options for organic recovery in the region in line with central governments indicated direction.	R	OB2, OB3, OB4, OB6, OB7	Enable Advisor
		Reduce generation	Investigate the volumes and impacts of waste from tourism, which can feed into a feasibility study for how to manage waste from tourism in the region.	R	OB1, OB2, OB3, OB5	Enable Advisor
	Resilience	Environmental impacts	Develop resilience plans for current waste infrastructure and services. This could include collaborating with Civil Defence and other organisations to develop a regional Disaster Waste Management Plan. This will ensure processes in place for managing	R	OB1, OB3, OB5, OB8	Enable Advisor Collaborator/Connector

	Option theme	Focus area	Options	Regional (R) or district specific (BDC, GDC, WDC)	Alignment with objectives	Councils intended role(s)
			waste associated with natural disasters, and waste from earthquake prone buildings.			
		Environmental impacts	Investigate the feasibility of a regional Disposal Facility/Landfill that could service the entire region.	R	OB3, OB5, OB8	Service provider. Enabler
Other shortlisted options for consideration	Making diversion easy	Contamination in kerbside	Investigate options to prevent contamination of glass colours (Westland).	WDC	OB3, OB5	Enable Advisor
		Contamination in kerbside	Investigate solutions for high contamination in kerbside comingled recycling in Grey District Council.	GDC	OB3, OB5, OB6	Enable Advisor
		Contamination in kerbside	Collaborate with local industry/organisations to establish hubs for collection of difficult materials/common contaminators of recycling e.g. Supermarkets	R	OB3, OB5, OB6	Enable Advisor
		Illegal dumping	Investigate developing a financial assistance programme and penalty system to manage illegal dumping. This could include rebates/discounts for current resource recovery infrastructure or tracking in illegal dumping hotspots for penalties.	R	OB1, OB2	Enable Advisor
	Creating partnerships	Illegal dumping	Collaborate within Council (internally), across Councils (regionally), and with organisations/industry (externally) to actively track illegal dumping and record data through existing processes, such as Request for Service system.	R	OB2, OB5, OB6	Collaborator/Connector

	Option theme	Focus area	Options	Regional (R) or district specific (BDC, GDC, WDC)	Alignment with objectives	Councils intended role(s)
	Communicate and share circular economy initiatives	Reduce generation	Map out existing resource recovery work that is happening in the region including community-led initiatives and share and promote publicly.	R	OB3, OB5, OB6	Service provider Advisor
		Information and education	Align information available on council websites regarding waste services, education, and policy where possible. For example, share good news stories in a consistent and regular manner, share activities from Enviroschools through Annual Reports, ensure the information on waste services available is consistent, up to date and easy to find online.	R	OB3, OB5, OB6	Service provider Advisor
		Information and education	Collaborate with industry and community to create West Coast A-Z recycling & recovery directory to highlight circular services in the region.	R	OB3, OB5, OB6	Service provider Advisor
	Improving data collection	Streamline data collection	Establish a template for reporting consistency from each District Council and Regional Council (waste data, emissions data) including waste streams reported on, total tonnage, diversion, contamination - align to new national requirements 01 July 2024 onwards.	R	OB1, OB7	Enabler
		Streamline data collection	Investigate/support data collection on waste diversion through other sources e.g., reuse shops, food banks etc	R	OB1, OB7	Enabler Advisor

9.7 Evaluating the impact of priority actions

Following the prioritisation of the options the associated spend and outcome are presented below. The intent of each action is to increase the capture of materials for recovery (reduce waste to landfill) and decrease emissions.

Material capture

Figure 9.3 presents the material capture for recycling or recovery of the tangible infrastructure options which are included in the priority options. Assumptions have been made regarding the timeline of implementation of these options in line with Central Government targets.

The figure shows that the greatest wins for diversion of material from landfill is to focus on organic materials (food and garden waste) and commercial waste including that of the construction sector. The values within the green section of the figure detail the potential recovery which can be achieved from each of the tangible infrastructure options.

Supporting initiatives

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

With the planned increases to the waste levy along with LTP funding the regions indicative funding expected towards solid waste management is detailed in (Figure 9.4). It is important to note that funding through other central government sources is expected to be more difficult to obtain.

A high-level assessment of the cost of implementing the prioritised activities across the region suggests a total budget of over $850,000 each year for operational expenditure (with capital expenditure varying depending on the option). These activities are ongoing, largely regional and could be introduced over an extended period drawing on increasing LTP budgets and/or waste levy funding. The breakdown of estimated costs for each of the tangible infrastructure options are detailed in Appendix F.

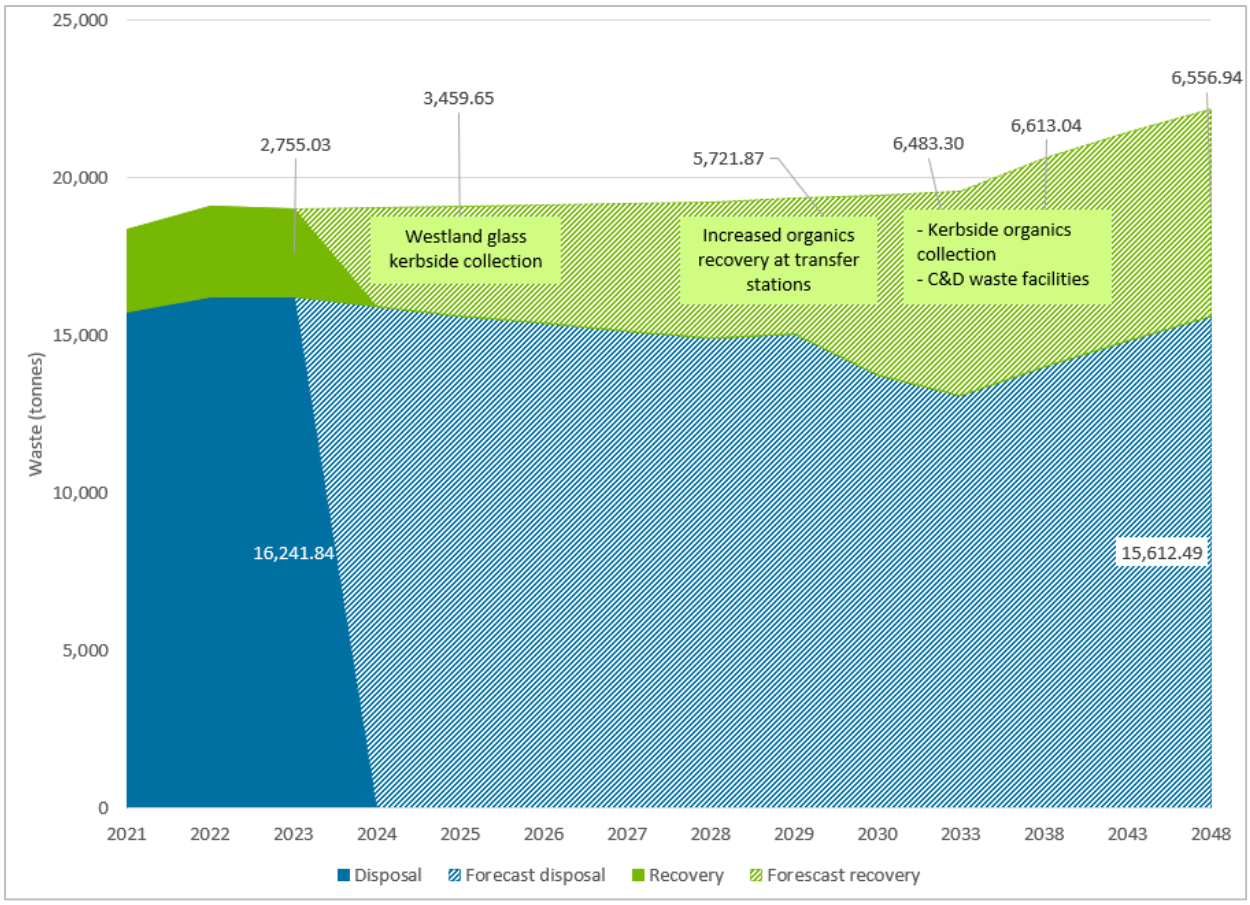

Figure 9.3: Material capture for new activities (priority options).

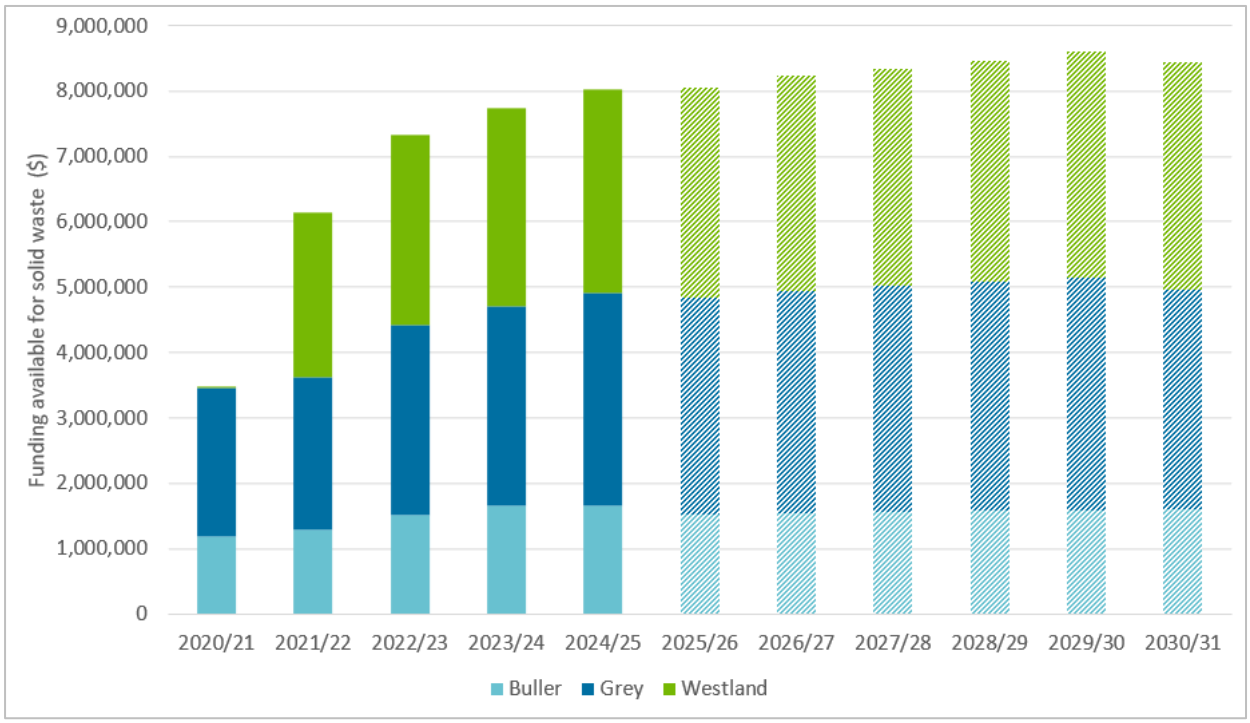

Figure 9.4: Indicative funding expected.

10 Statement of proposal

Drawing on the Possibilities, Evaluation, Priority Options, and the Councils' intended roles in meeting future demand, the Councils must:

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

1 This document has identified that over 16,000 tonnes of waste was generated in the West Coast Region in 2022/23 with 83% being sent to landfill and the remainder diverted via recycling. Diversion occurs predominantly through recycling at kerbside and transfer stations. The diversion of waste from landfill currently being achieved at kerbside is 30% which demonstrates the success of rolling out kerbside recycling services.

2 Table 9.4: Shortlist Assessment (priority options) summarises the Priority Options the councils propose for meeting and managing the forecast demands on waste in the district (subject to consultation). These Options have been aligned to the strategic framework including goals, and objectives set out in Part 2 – Where do we want to be? Current waste minimisation services and activities provide a good foundation and will continue to be delivered and built on to ensure:

1 The West Coast is set up to respond to future national policy changes.

2 Improved data collection and reporting to improve for planning and transparency.

3 Councils can tackle specific waste streams and improve the capture of materials.

4 Support and increase the focus on circular economy activities.

10.1 Councils' intended role in meeting the forecast demand

The next six years

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

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

including a more on supporting and enabling the community to contribute through:

- Developing partnerships and collaboration with industry and community groups.
- Developing behaviour change and education programmes.
- Providing leadership to industry, the community, and residents.
- Ensuring council owned services and facilities are consistent across the region.

Longer range forecast

The Aotearoa New Zealand Waste Strategy envisions a low waste, low emissions circular economy by 2050 and provides a high-level roadmap to achieve this. Over the next 27 years or four Waste Management and Minimisation Plans, a significant reduction in waste to landfill will need to be achieved. Alongside this, total material entering the waste system (waste generated) also needs to reduce.

11 Medical Officer of Health statement

The Medical Office of Health for the National Public Health Service – West Coast provided a statement regarding this Waste Assessment. This statement is included in Appendix G.

Appendix A Relevant policy for waste in the West Coast region

Table Appendix A.1 : National, regional, and district waste policy

National	Regional	District Council specific
Statutory • Waste Minimisation Act 2008 (currently under review) • Health Act 1956 • Hazardous Substances and New Organisms Act 1996 • Resource Management Act 1991 • Local Government Act 2002 • Litter Act 1979 (under review) • Climate Change Response Act 2002 • Non-Statutory • Emissions Reduction Plan 2022 • Te Rautaki Para | Waste Strategy 2023	• Waste Management and Minimisation Plan 2018 • Combined West Coast District Plan	Annual Plan 2023/24 • Buller Annual Plan • Grey Annual Plan • Westland Annual Plan Long-Term Plan 2021/31 • Buller LTP • Grey LTP • Westland LTP • Climate change: • Buller climate change adaptation planning

Table Appendix A.2 : Goals and targets from the 2018 WMMP

Goals	Objectives	Targets	Indicators
Avoid and reduce waste where we can	1. To avoid creating waste	1.1 To maintain or reduce the total quantity of waste disposed of to landfill from the West Coast on a per capita basis.	The current figure is 340 kg per person. Waste disposed to landfill < 300 kg per person each year
Manage waste responsibly	2. To make it easy to recycle	2.1 Increase in the proportion of material captured for recycling at kerbside and transfer stations.	The current figures are 29% and 27%, respectively. Kerbside recycling > 35% by 2025 Recycling at Transfer stations > 50% by 2025

Goals	Objectives	Targets	Indicators
		2.2 Establish simple and effective recycling services for visitors to the West Coast Region.	Establish 5 landfill waste and recycling depots at key visitor locations on the West Coast by 2022. Pilot with 2 facilities in Buller District followed by the remainder of the Region.
Maximise community benefit	3. To ensure visitors, households and businesses have access to safe disposal of residual waste	3.1 Satisfaction with kerbside collection and transfer station services.	Resident and visitor satisfaction > 85% Establish 5 landfill waste and recycling depots at key visitor locations on the West Coast by 2022
	4. To reduce illegal dumping and litter	4.1 Reduction in illegal dumping incidents and quantity of material illegally dumped in the West Coast Region. (Establishing landfill waste and recycle stations).	Quantity of illegally dumped waste < 2016/17 figure the number of illegal dumping incidents is < 2016/17 figure.
	5. To create opportunities for West Coast – community partnerships, jobs, innovation, and efficient business	5.1 To publish a summary of available data on waste generation and management with each annual report.	Summary data published in Annual Report To create a grant scheme to support new initiatives to reduce waste
	6. To improve community understanding of issues and opportunities for waste management on the West Coast	6.1 School programmes supported by Council Support the Enviroschools programme each year.	
		6.2 Council (or contractors) promote waste minimisation at events in the Region.	Councils promote waste minimisation at > five events in the Region each year.
		6.3 Inform and support West Coast residents and businesses on waste minimisation opportunities.	Information made available and regularly updated on Council websites.
	7. Councils work with others to improve waste minimisation and management in New Zealand	7.1 Work with others to influence national policy and action on waste minimisation and management.	

Appendix B Long Term Plan overview

Table Appendix B.1 : 2021 – 31 Long-term plan overviews

Activity	Community outcome/sustainable solution	Council role
Buller District Council		
Solid waste – collection, transfer and final disposal of waste materials generated by households and businesses within the district.	Affordability - The District has a means of safely disposing of its landfill waste. Prosperity - Commercial needs for dealing with waste are met. Culture: • Programmes are provided to schools and the community on waste care and reduction. • There is continued public education around composting, food waste reduction strategies and recycling opportunities. • Environment • Landfill waste is collected and disposed of in a safe, efficient, and sustainable manner, minimising the risk of waste being inappropriately or dangerously disposed of. • Waste minimisation is encouraged.	Council provides ethical, economical, and efficient waste management services, where the concepts of sustainability and social responsibility are equally valued alongside cost. Change behaviours to Solid waste leading to a decrease in the quantity of waste generated per person and divert Solid waste from landfills.
Long Term Plan 2021-2031 • Waste management and minimisation are listed as key aspects for achieving the community's goal of a 'Sustainable Environment'. • Council is committed to this goal through the facilitation of the collection and disposal of landfill waste in a safe, efficient, and sustainable manner, and encouraging and educating the community around waste care and minimisation. However, there is nothing specific about C&D waste. • Council states their desire to move towards a more circular economy, and away from landfills. • Capital funding has been allowed in the Plan for replacement of existing assets over the life of the Plan. No specific detail is provided on specific assets.		

Activity	Community outcome/sustainable solution	Council role
Grey District Council		
Solid waste – landfill waste collection, recovery of recyclable materials, management of landfill and cleanfill and resource recovery centres, management of minor quantities of hazardous waste, Litter Bin management, waste minimisation, environmental monitoring.	Economic wellbeing (strong, sustainable) – Efficient and responsible management of solid waste is integral to providing for a strong and sustainable economy. Social wellbeing (safe) – Efficient and responsible management of solid waste is fundamental to the health and safety of people within the community. Environmental wellbeing (practical, resilient, strategic) – Effective, strategic, and responsible management of solid waste provides for resiliency of the environment.	Providing solid waste infrastructure – McLeans Landfill and Recycling Centre Council services provide the following – kerbside recycling for the CBD and urban area of greater Greymouth, landfill waste collection, and litter bins.
Long Term Plan 2031-2031 • Key contributions in terms of waste management are stated as being the provision of waste and recycling collection, storage, and disposal (including management of the McLean's Landfill and McLean's Recycling Centre), the provision of waste minimisation processes and education, and the provision of litter management services and education. • Four key issues for waste management are identified for the district including the need for ongoing development at McLean's Landfill. The need for increased waste minimisation, the financial impact of the ETS, and increasing volumes of demolition waste from the demolishing of earthquake prone buildings. Options for addressing these key issues are outlined in the plan, along with funding projections to provide for them.		
Activity	**Community outcome/ sustainable solution**	**Council role**
Westland District Council		
Solid Waste – manage across Westland District, including waste and recycling collection (pick-up) in the northern and southern parts of the district, the provision of transfer stations and disposal sites serving all townships, and responsible camping waste stations.	• Sustainably Managed Environment • Solid waste is managed appropriately. • Maximised recycling efficiency	Council is responsible for encouraging efficient and sustainable management of solid waste.
Our Way Forward - Council's Long-Term Plan 2031-2031 • Key issues associated with solid waste management are identified as waste minimisation, waste charges, reducing waste tonnage to landfill, communication with the community, and transfer station opening hours. Closed landfill capping projects and legislation changes are also identified as key issues.		

Activity	Community outcome/sustainable solution	Council role
• Funding has been allocated for several capital projects including works at the closed landfill at Hokitika, and capping and new cell construction at Butlers and Haast landfills. • The Plan states that Council are strict with illegal dumpers of waste by using infringements. • There are no specific references to C&D waste due to early stages of this project.		

Appendix C District waste disposal costs 2024/25

Table Appendix C.1 : Buller district – Westport and Reefton Transfer Stations disposal costs

Waste	Unit	Cost
General waste	Per bag	$10.90
	Per tonne	$606.50
	20 Kg	$16.20
	Polystyrene per m3	$363.00
Green waste	Per tonne	$149.00
Recycling	Glass (domestic – sorted)	Free of charge
	Glass (commercial) per tonne	$100.00
	General (domestic) < 5 kg	Free of charge
	General (commercial) per tonne	$906.00
Paint	10 or 20 L pail (each)	$8.20
Waste oil	Waste oil (4 L)	$2.30
	Waste oil (20 L)	$4.60
Whiteware	Fridge / freezer	Free of charge
	General / other whiteware (each)	$10.40
Gas bottles (each)		$10.40
Tyres	Car (each)	$10.00
	Truck, tractor/loader	Not accepted
Scrap Steel	Free of contaminants per tonne	$40.00
Car bodies	Prepared only	$58.00
Batteries	Motorbike, car, truck, household batteries	Free of charge
E-waste	Laptops, computer parts, printers, cameras	Free of charge
	TVs	As refuse

Table Appendix C.2 : Grey district disposal costs

Waste	Unit	Cost
McLean's Pit Landfill		
General waste	Per tonne	$525.00
	Refuse Bag with Council issued tie	Free
	Refuse Bag without Council issued tie	$7.00
Recyclable	Green waste (per tonne)	$210.00
Tyres	Car, motorbike and 4WD	$12.00
	Truck	$20.00
	Tractor	$25.00
	Specialist Industrial	$50.00
Other	Unprepared car bodies (per car)	$95.00
	Paint/solvents (per litre)	$4.80
	Asbestos disposal	$300.00
McLean's Pit Recycling Centre		
Commercial Recycling	Per tonne	$160.00

Waste	Unit	Cost
Plastic, paper, cardboard, aluminium cans. Tin cans, glass, light scrap metal, heavy scrap metal, recyclable whiteware, empty LPG bottles, prepared car bodies		Free
Green waste	Commercial trailer (per load)	
	Car boot	$20.60
	Small trailer (single axle)	$26.80
	Large trailer (tandem axle)	$35.70
	Small Truck (1.5 m^3 Max)	$62.00
	Large Truck	$210.00
Resource Centres (Moana/Blackball/Nelson Creek)		
General waste	Refuse Bag with Council issued tie	free
	Refuse Bag without Council issued tie	$7.00
	Car Boot	$45.00
	Station wagon / Utility vehicle / van	$68.00
	Single axle trailer	$89.50
	Tandem Trailer	$146.40
	Truck under 5 m, uncompacted general waste	$320.70

Table Appendix C.3 : Westland district – Hokitika Transfer Station disposal costs

Waste	Unit	Cost
General waste	Per tonne	$595.00
	60 L bag	$6.00
Green waste	Per tonne	$55.00
	60 L bag	$0.75
Other items	Whiteware (degassed) – per item	$16.50
	Tyres (each)	$10.00
	Gas bottle disposal	$15.00
	Cars (prepared)	$150.00

Appendix D Evaluation Criteria

Table Appendix D.1 : Evaluation Criteria

Measures	Description	Rating		
		Low	Medium	High
Cost to Council (economically viable)	The level of capital and operational expenditure and resourcing required by Council to deliver the option, noting the potential for funding from outside source(s). This criterion covers affordability for Councils.	The option commits Council to a high degree of financial and resource investment.	The option requires financial and/or resource investment from Council.	This option allows Council to experience benefits without the need for significant financial and/or resource investment.
Accessibility and affordability	Solutions delivered which are equally accessible to all in the community. This includes physical access, affordability, consistency in materials accepted, accessibility of information etc.	Access to facilities, services and information does not improve from what is currently available in the region.	Most residents have access to affordable waste/material management facilities, services, and information.	All residents and community groups have access to affordable waste/material management facilities, services, and information.
Impact on the wider environment	Options that minimise negative impacts of waste management and enhance the environment.	Impacts to the environment are consistent with current activities.	Some indirect/unknown positive impacts to the environment.	Positive impacts to the environment are generated or the environment is enhanced.
Social/cultural outcomes	The ability of an option to enable better social, financial, environmental, and cultural benefits for members of the community including Mana Whenua.	No additional outcomes are provided to the region.	Outcomes provided to small/specific group within the community.	Outcomes which benefit multiple groups within the region.
Partnership and collaboration	Options that allow collaboration across stakeholder groups (Mana Whenua, community, businesses, and industry) to ensure all aspects of the circular economy can be implemented.	No collaboration taking place.	Collaboration between existing groups, industries, and Councils.	Cross collaboration between community groups, industries and Mana Whenua with Council acting as a facilitator or connector (little/no Council involvement).

Measures	Description	Rating		
		Low	Medium	High
Recovery and markets	The level of confidence in recovery of the material and viable markets for the output(s) from the solution. Along with consideration from future markets which may become available in the West Coast and New Zealand.	No recovery or markets currently available in New Zealand.	Recovery is currently taking place and markets available in New Zealand with future markets emerging.	Recovery and markets currently available within New Zealand which are available to the West Coast.
Responsible consumption	Encourages and educates residents and visitors to make choices in line with the waste hierarchy	Option does not address behaviour change.	The option considers positive behaviour change.	The option actively promotes positive behaviour change.
Appropriate for West Coast/regional lens	Assessment of how appropriate and resilient the option is for the West Coast, noting seasonal visitor numbers and resilient to a changing waste environment in Aotearoa (including policy direction, market conditions and technical guidance).	Option not practical in the West Coast due to scale, funding requirements or other factor(s).	Option has been implemented in other New Zealand regions of similar context.	Option is likely to be successful in the West Coast or has been in other regions in New Zealand of similar context.
Technical risk	The share of and likelihood of risk taken on by Council to deliver an option.	Council is exposed to a high or unknown level of risk.	Council is exposed to an acceptable level of risk.	Council is exposed to risks which can be effectively mitigated.

Appendix E Possibilities assessment

Table Appendix E.1 : Evaluation of Possibilities options for West Coast

Focus Area	Possible Option	Cost to Council (economically viable)	Accessibility and affordability	Impact on the wider environment	Social/cultural outcomes	Partnership and collaboration	Recovery and markets	Responsible consumption	Appropriate for West Coast / regional lens	Technical risk	Score
Contamination in kerbside	Develop solid waste bylaw to strengthen enforcement.										24
	Collaborate with central government, local government, and non-government organisations to assess solutions to reduce contamination and explore opportunities for the West Coast to improve waste management. This could include joining nationwide forums e.g. WasteMINZ TAO Forum or connecting with the Sustainable Business Network.										22
	Develop an educational programme of work focusing on behaviour change and information sharing to the community.										22
	Utilise and/or build on national waste and behaviour change campaigns and/or collateral to promote waste diversion.										22
	Investigate options to prevent contamination of glass colours (Westland).										21
	Investigate solutions for high contamination in kerbside comingled recycling in Grey District Council.										21
	Identify learnings from bin audits undertaken (by Council and contractors to Council) to identify materials which cause contamination.										21
	Collaborate with local industry/organisations to establish hubs for collection of difficult materials/common contaminators of recycling e.g. Supermarkets										21
	Advocate to central government to implement rules for product producer and retailers to take ownership for packaging and offer take back schemes.										20
	Request kerbside waste contractors to complete random spot checks on recycling bin compliance.										19
	Undertake a study on contamination in kerbside and public litter bins to establish problematic materials, causes for contamination and possible options to prevent contamination, these could include a demerit points system or RFID tags on bins to monitor repeat offenders.										15
Environmental impacts	Investigations into which Council owned closed/historic landfill sites require a remediation plan.										20
	Develop resilience plans for current waste infrastructure and services. This could include collaborating with Civil Defence and other organisations to develop a regional Disaster Waste Management Plan. This will ensure processes in place for managing waste associated with natural disasters, and waste from earthquake prone buildings.										20

Focus Area	Possible Option	Cost to Council (economically viable)	Accessibility and affordability	Impact on the wider environment	Social/cultural outcomes	Partnership and collaboration	Recovery and markets	Responsible consumption	Appropriate for West Coast / regional lens	Technical risk	Score
	Promote and share existing tools, case studies and resources to support organisations in calculating their waste related emissions.										19
	Investigate the feasibility of a regional Disposal Facility/Landfill that could service the entire region.										17
	Investigate whether landfill gas capture is required and feasible for McLeans Pit and Butlers Landfills.										17
	Investigate the most efficient way for councils to report consistently on emissions associated with waste generation and management across the region.										15
	Partner with organisations promoting emissions tracking e.g. Development West Coast, West Coast Climate Action Support.										15
Illegal dumping	Investigate developing a financial assistance programme and penalty system to manage illegal dumping. This could include rebates/discounts for current resource recovery infrastructure or tracking in illegal dumping hotspots for penalties.										21
	Collaborate within Council (internally), across Councils (regionally), and with organisations/industry (externally) to actively track illegal dumping and record data through existing processes, such as Request for Service system.										20
	Investigate whether Council provide or partner to provide a bookable bulky waste collection service (e.g. for whiteware).										18
Industry waste	Advocate and facilitate sector groups (e.g. C &D, Agricultural waste groups) to discuss problems and explore solutions. Utilise resources outside of the region and connect with other regional sector groups (e.g. Tradie breakfast)										26
	Investigate whether Council want to facilitate Product Stewardship Schemes at their transfer stations e.g. Tyrewise collection point when the programme opens, promoting the programmes to encourage uptake.										21
	Investigate and facilitate collaboration opportunities across the region with iwi, industry, businesses, community groups, utilising activities that are already established e.g., virtual/in person networking events, Council gardens etc.										21
	Investigate options for recovering high volumes of industry waste, with consideration of landfill longevity.										20
	Establish needs and barriers from industry to support waste reduction. This can be done through connecting with industry at existing events run by industry or Council.										18
	Reflect and investigate low uptake of existing product stewardship schemes in the region including AgRecovery, to apply learnings for new opportunities that emerge.										13

Focus Area	Possible Option	Cost to Council (economically viable)	Accessibility and affordability	Impact on the wider environment	Social/cultural outcomes	Partnership and collaboration	Recovery and markets	Responsible consumption	Appropriate for West Coast / regional lens	Technical risk	Score
Information and education	Advocate for action and research promoting the top of the waste hierarchy (e.g. Product Stewardship Schemes, Right to Repair legislation and research into recovery options for difficult to manage waste streams).										24
	Investigate whether a grant for waste and resource recovery activities in the region can be developed between Councils.										22
	Align survey questions across districts in resident satisfaction survey to allow for year-on-year and cross district comparison.										21
	Assess whether a regional Waste Minimisation/Behaviour Change role could be developed for the region.										20
	Consistently share waste recovery and diversion information in Councils Annual Reports.										18
	Align information available on council websites regarding waste services, education, and policy where possible. For example, share good news stories in a consistent and regular manner, share activities from Enviroschools through Annual Reports, ensure the information on waste services available is consistent and ensure information on Butlers Landfill is easy to find online (Westland).										18
	Conduct a resident satisfaction survey within Buller.										18
	Collaborate with industry and community to create West Coast A-Z recycling and recovery directory to highlight circular services in the region.										18
	Explore whether the community would like Councils to offer services or guidance such as waste audits to help organisations understand their waste generation better.										18
Reduce generation	Utilise council websites to link to existing resources to help plan and manage material management e.g. BRANZ and REBRI for the construction sector.										25
	Investigate alternative options to manage waste streams / materials which take up most volume in the regions landfills and transfer stations.										22
	Tourism Levy implemented for those staying in the region to cover the costs of infrastructure including waste assets and management.										22
	Implement Resource Recovery Shops in the regions' main transfer stations (Westport, McLean's Pit, and Hokitika).										21
	Review the results from C&D feasibility study to assess the best options for C&D recovery in the region (subject to feasibility study)										21
	Continue to support and promote product stewardship schemes through existing transfer stations where appropriate.										21
	Review the results from organics feasibility study to assess the best options for organic recovery in the region in line with central governments indicated direction.										20

Focus Area	Possible Option	Cost to Council (economically viable)	Accessibility and affordability	Impact on the wider environment	Social/cultural outcomes	Partnership and collaboration	Recovery and markets	Responsible consumption	Appropriate for West Coast / regional lens	Technical risk	Score
	Review access to services e.g. rural residents, review transfer station openings times/days to assess whether they meet the needs of locals, visitors.										19
	Investigate opportunities to provide cost-effective services for those not receiving a kerbside collection e.g. mobile solution, etc.										19
	Map out existing resource recovery work that is happening in the region including community-led initiatives and share and promote publicly.										19
	Investigate consolidating MRF operations and options for glass (local processing and beneficial use).										18
	Collaboratively investigate with the community and industry groups what potential reuse, share and repair services would be beneficial for the region, and the role of councils in this i.e., collaboration, support, encouragement.										16
	Investigate the volumes and impacts of waste from tourism, which can feed into a feasibility study for how to manage waste from tourism in the region.										16
Streamline data collection	Align services available at transfer stations across the region.										23
	Establish a template for reporting consistency from each district Council and Regional Council (waste data, emissions data) including waste streams reported on, total tonnage, diversion, contamination - align to new national requirements 1 July 2024 onwards.										19
	Investigate/support data collection on waste diversion through other sources e.g., reuse shops, food banks, etc										19
	Investigate data collection from difficult waste streams often managed by private contractors (e.g. hazardous, EOL vehicles, medical)										18
	Collect tonnage data at Transfer stations from residential drop-off and commercial drop off from different sectors to help track trends for future analysis.										16
Streamline kerbside	All councils to have the same waste contractor which reports at district level streamlining data capture.										15

Appendix F Priority options fundings

Table Appendix F.1 : Priority options funding estimates

Option	Requirement	Capex ($)	Requirement	Opex ($)
Glass diversion Westland kerbside	Fleet *(assuming one vehicle)*	120,000	Contractor	150,000
	Procurement	80,000	Facility maintenance	25,000
	Total	**200,000**	**Total**	**175,000**
Behaviour change/education programme	N/A	N/A	Council time	50,000
			Providers	15,000
			Marketing	20,000
			Total	**85,000**
Organics recovery kerbside	Fleet *(assuming two vehicles)*	240,000	Contractor	150,000
	Procurement	80,000	Facility maintenance	70,000
	Total	**320,000**	**Total**	**220,000**
Organics recovery Transfer Station	Facility development/upgrades	200,000	Contractor	150,000
	Procurement process	40,000	Facility maintenance	120,000
	Total	**240,000**	**Total**	**270,000**
C&D recovery	Facility development/upgrades	200,000	Contractor	50,000
	Procurement process	40,000	Facility maintenance	50,000
	Total	**240,000**	**Total**	**100,000**

Appendix G Medical Officer of Health review