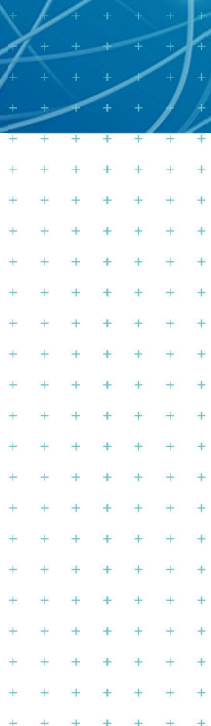




# West Coast Regional Waste Minimisation and Management Plan

Prepared for  
Buller, Grey and Westland District Council  
Prepared by  
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Date  
September 2018  
Job Number  
1003467.v3.0



Distribution:

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## Appendix A : West Coast Regional Waste Assessment (2018)



# 1 Part A – Strategy

## 2 Introduction

### Purpose of the plan

This draft Waste Minimisation and Management Plan (WMMP) sets out how the Council will progress efficient and effective waste management and minimisation in the West Coast Region. It paves the way forward, considering current policy and the legal framework and West Coast Region vision, with an overarching suite of guiding goals and objectives.

This WMMP fulfils each Council's obligations under the Waste Minimisation Act (WMA) (2008). The plan uses the waste hierarchy (Figure 1) as a guide to prioritising activity, focussing on reducing waste before recycling or recovery of materials. Where materials cannot be recycled or recovered the focus is on safe treatment and disposal.

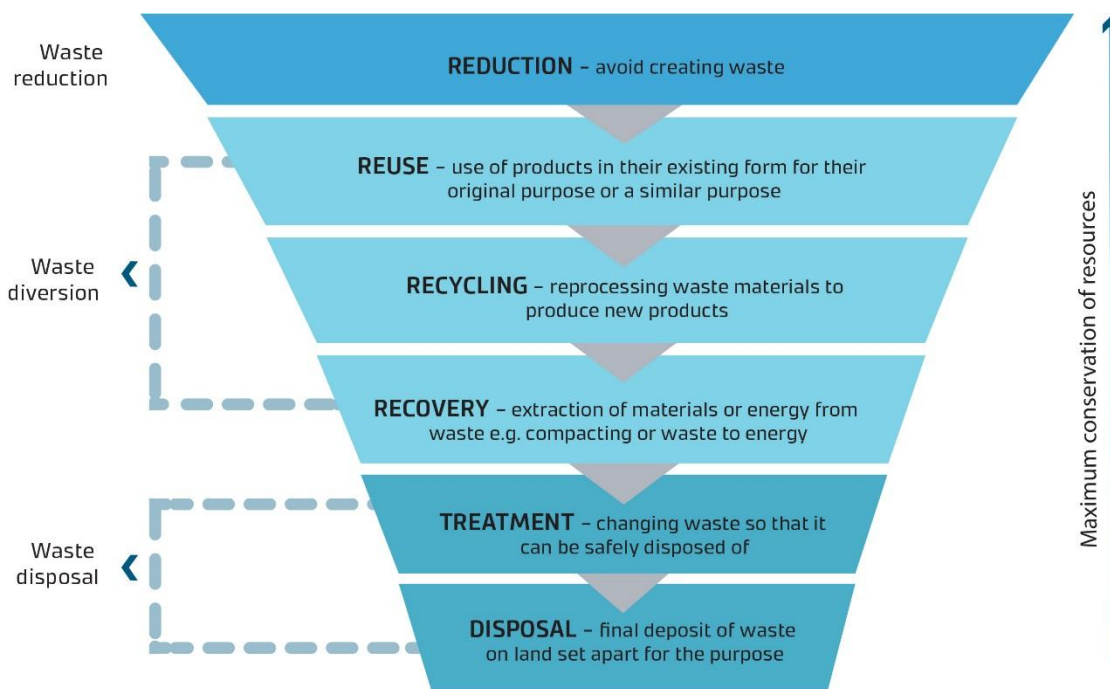


Figure 1: The Waste Hierarchy

### Scope of plan

This draft WMMP and associated Waste Assessment covers solid waste generated in the West Coast Region.

### Current status of plan

April 2018

This plan is the draft of a new plan developed to replace the three Council's 2012 WMMPs. This document will be revised and updated following public consultation prior to be adopted by Council as a framework and guide for waste minimisation and management activity in the West Coast Region from 2018 to 2024.

### Plan Review

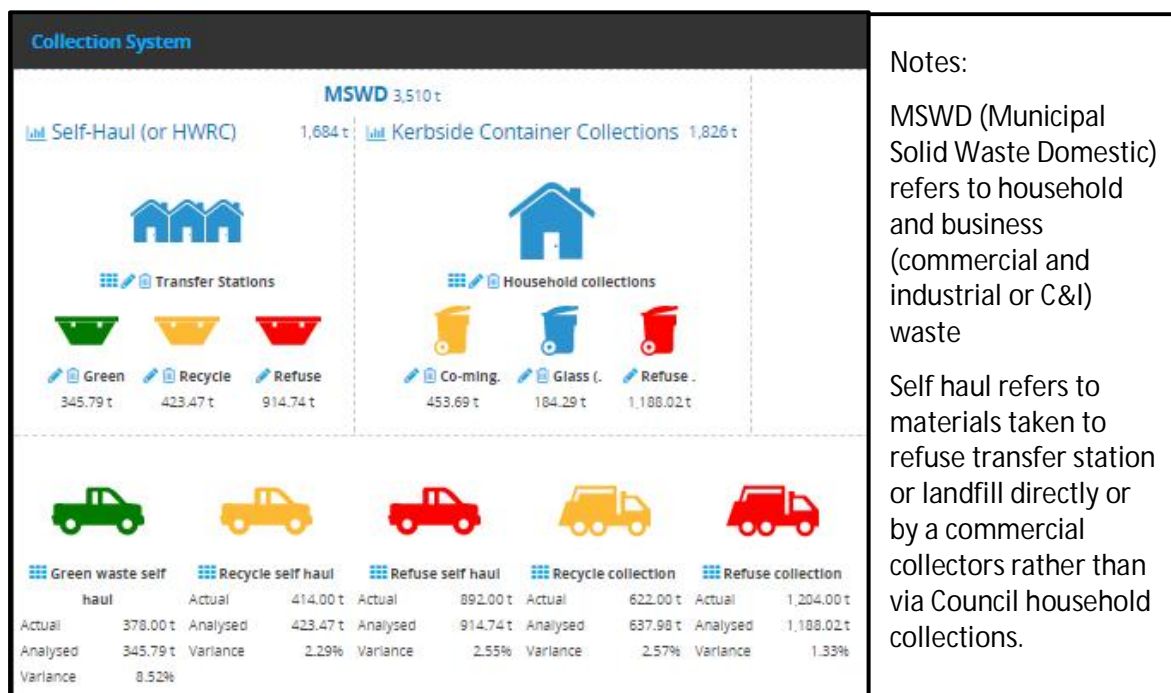
Once adopted this plan needs to be reviewed no later than 6 years from adoption. The plan will be review within this timeframe, earlier if a change circumstances provokes a review of the West Coast Region's waste minimisation and management policy framework.

### 3 The waste situation

#### 3.1 Infrastructure and services

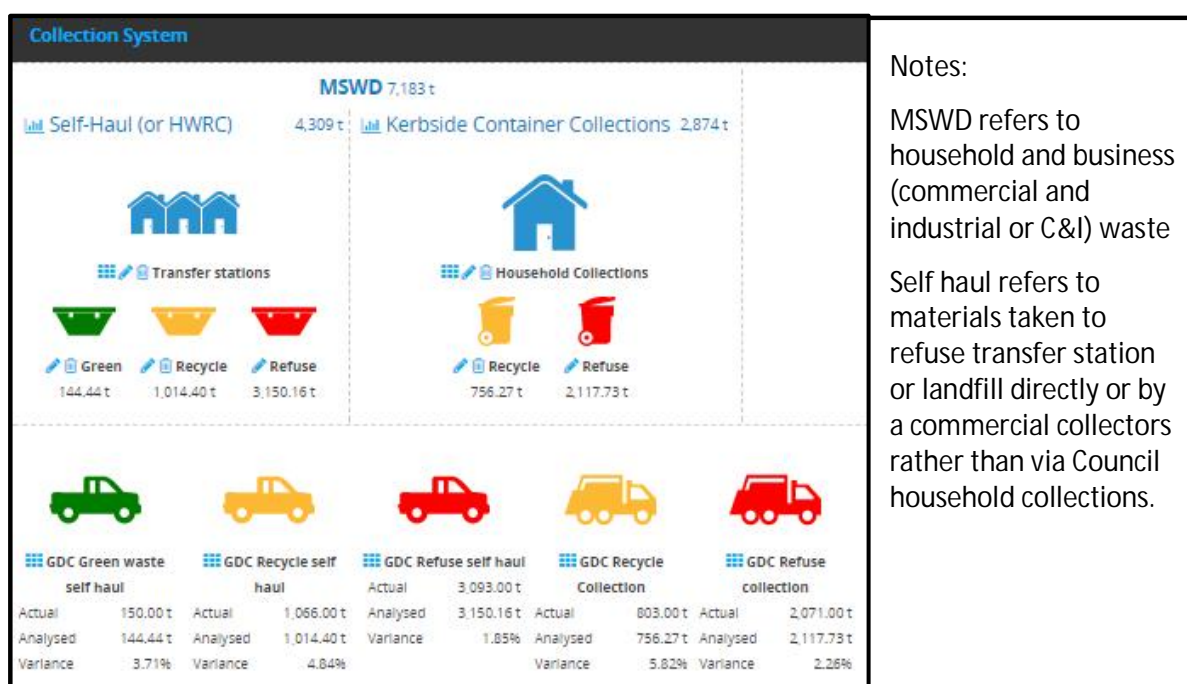
##### 3.1.1 Collection

The collection system for each District is represented schematically in Error! Reference source not found., Error! Reference source not found. and Error! Reference source not found..



Notes:  
MSWD (Municipal Solid Waste Domestic) refers to household and business (commercial and industrial or C&I) waste  
Self haul refers to materials taken to refuse transfer station or landfill directly or by a commercial collectors rather than via Council household collections.

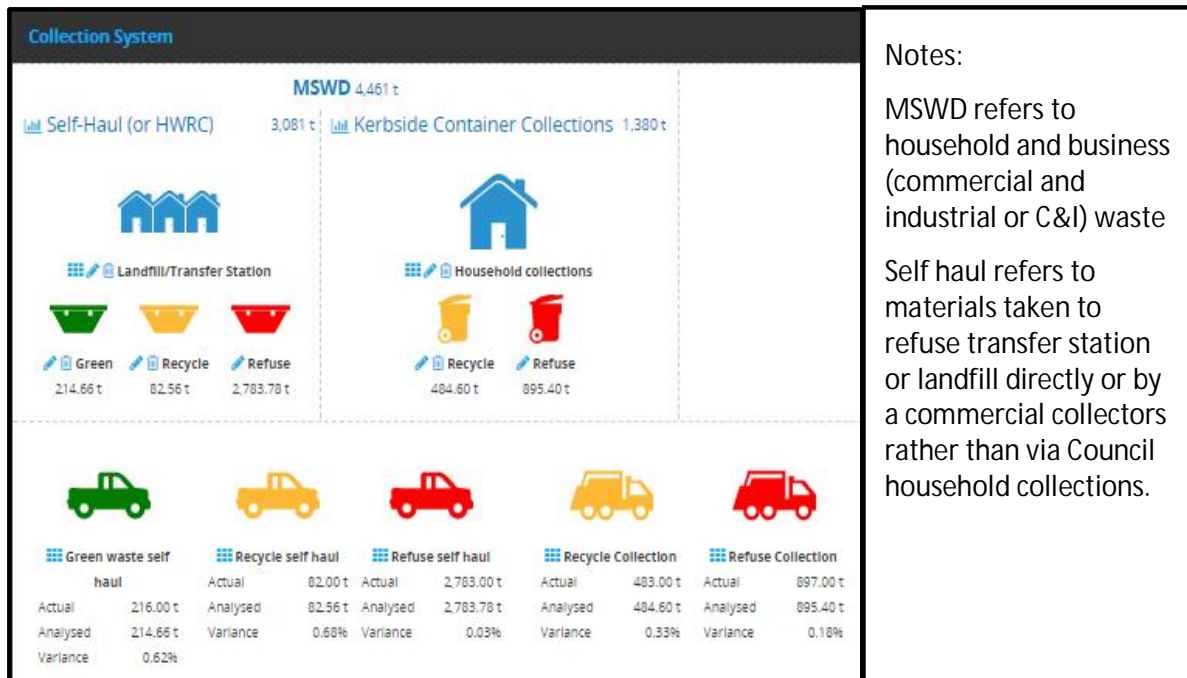
Figure 2: Buller District Waste Collection Systems



Notes:  
MSWD refers to household and business (commercial and industrial or C&I) waste  
Self haul refers to materials taken to refuse transfer station or landfill directly or by a commercial collectors rather than via Council household collections.

Figure 3: Grey District Waste Collection Systems





## Notes:

MSWD refers to household and business (commercial and industrial or C&I) waste

Self haul refers to materials taken to refuse transfer station or landfill directly or by a commercial collectors rather than via Council household collections.

Figure 4: Westland District Waste Collection System

### 3.1.1.1 Waste from visitors to the region

The West Coast Region hosts a large number of international and domestic tourists. Self drive tourists are common (cars, campervans) as well as organised tours (coach, rail from Christchurch). In many areas tourism is the main driver of economic activity with an associated impact on waste generation. In addition to generating commercial waste (through hospitality businesses including restaurants and accommodation) many tourists make use of public place refuse and recycling facilities where available. There is some provision at nominated free camping locations but this is inconsistent across the Region.

### 3.1.1.2 Residential Collection

The three councils all provide residential collection services in parts of their districts with urban and many rural residents having access to both refuse and recycling collections at the roadside.

Kerbside refuse in Buller District is collected in compactor trucks and consolidated at the Westport Resource Recovery Park for transportation to Nelson. Households can use refuse bags (sold at a range of retail outlets) or use one of several commercial collection services. Council offer a two stream kerbside recycling service in all areas except Karamea and Maruia. Households have fortnightly collections of co-mingled materials (paper, cardboard, plastics and tins in a 240L MGB) and glass (in a 60L crate).

Kerbside refuse in the Grey District is collected in compactor trucks and disposed of at McLean's Landfill near Greymouth. Households in Greymouth and the surrounding area are provided with 120L MGB for refuse (collected fortnightly). The remainder of the district is supplied with 52 ties per year that can be used with any standard sized refuse bag. Council offer a single stream kerbside recycling service in Greymouth and surrounding areas. Households are supplied with a 240L MGB that is collected fortnightly. No kerbside recycling service is provided outside Greymouth and surrounds.



Kerbside refuse in the Westland District is collected in compactor trucks and disposed of at Butlers Landfill near Hokitika. Households in Hokitika, Kumara, Ross and connecting roads are provided with 120L MGB for refuse (collected fortnightly). Council offer a single stream kerbside recycling service (excluding glass) in the same areas. Households are supplied with a 240L MGB that is collected fortnightly. No kerbside recycling service is provided outside Hokitika, Kumara and Ross.

### 3.1.1.3 Commercial or Industrial Waste

Waste (both refuse and recycling) from commercial and industrial premises is currently collected and disposed of via the various Resource Centres, Resource Recovery Parks and transfer station across the region. For materials collected for recycling or treatment or disposal out of the region (e.g. paper/card or plastic film from retailers) no data is available. Many national businesses with a local presence have comprehensive waste management and recycling systems in place, for example Countdown, the Warehouse and Foodstuffs all operate waste management systems where some material is recovered and recycled (paper and cardboard), organic material (food waste) is diverted to animal feed with only residual waste disposed of at local Landfill.

### 3.1.1.4 Litter and Illegal Dumping

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 with servicing of heavily used Department of Conservation (DoC) locations. There are examples of illegal dumping occurring and the relative remoteness of the Region makes it easy to find locations to dump material if businesses or households want to avoid disposal charges.

## 3.1.2 Waste transfer, processing and disposal

### 3.1.2.1 Transfer stations and recycling drop-off

Transfer stations, where waste can be dropped off by the public, are located at:

- Buller District: Transfer Stations at Westport, Reefton, Landfills at Karamea and Muruia.
- Grey District: McLean's Landfill and Recycling Centre with rural Resource Centres at BlackBall, Nelsons Creek and Moana.
- Westland District: Kumara, Hokitika, Ross, Harihari (all operated by EnviroWaste), Whataroa, Frans Josef, Fox Glacier and Haast Landfill (all operated by South Westland Rubbish Removal).

There are weighbridges at three transfer stations (Westport, Reefton and Hokitika) and McLean's Pit Landfill (Figure 9 drop off area). There are small landfills at Karamea (Buller District), Maruia (Buller District) and Haast (Westland District).

Recyclable materials are processed prior to shipping at materials recovery facilities (MRF) of varying complexity at Westport, McLean's Recycling Centre and Hokitika. Green waste is shredded at Westport (Figure 8), McLean's and Hokitika, with material blended with biosolids at Westport and stockpiled on the other two sites.

The West Coast regional waste management system and estimated quantities for 2016 are presented in Figure 5. Facility details are provided on the following pages. Figure 5 is a screenshot from a model of the West Coast regional waste management system, developed for this Waste Assessment. Figure 6 shows the locations of the sites noted above.

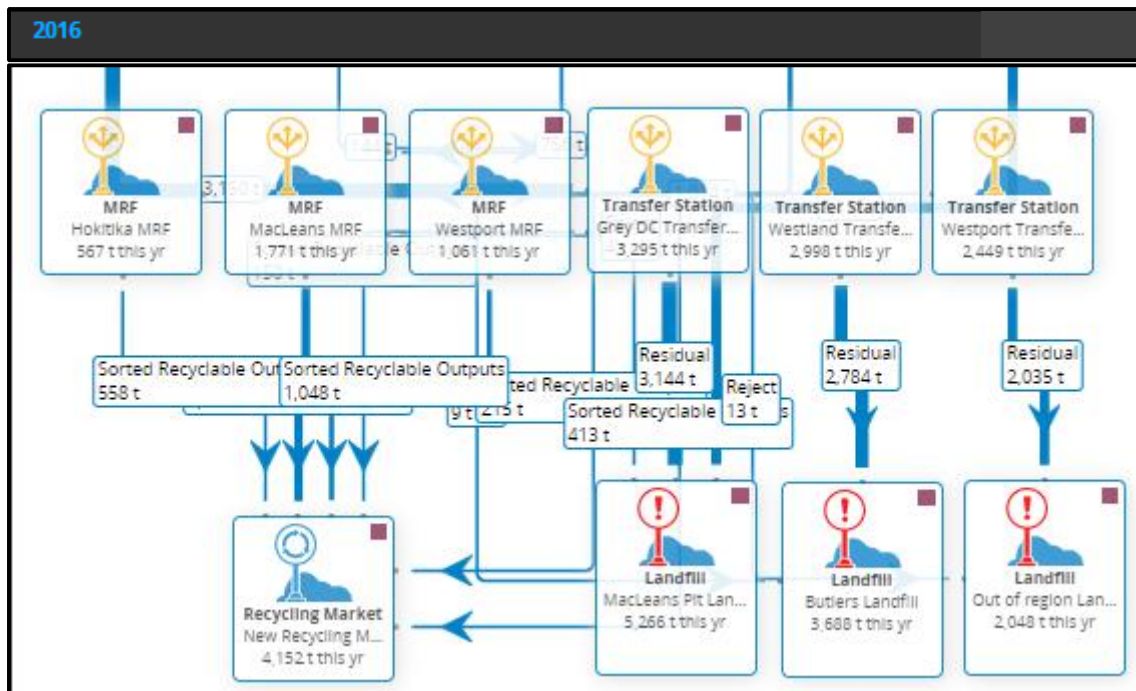


Figure 5: Waste Flow Diagram - Collection, Processing and Disposal (2015/16 figures)



Figure 6: Transfer Stations and landfills on the West Coast<sup>1</sup>

<sup>1</sup> Image built in gis.westcoast.govt.nz with locations annotated using label tool.



Figure 7: Westport Transfer Station - Drop-off area and MRF

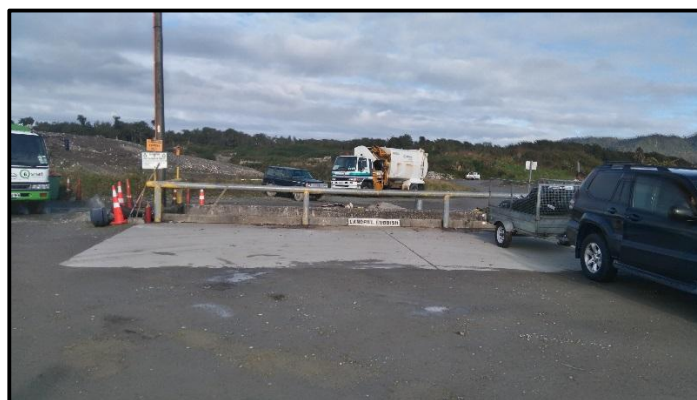


Figure 8: McLeans Pit Landfill - Public Drop-off area

### 3.1.2.2 Other Processing

There are no commercial composting operations of any scale in the West Coast Region. The Energy Efficiency and Conservation Authority (EECA) maintain an energy use database that provides some insight into the use of wood for energy, typically at wood processing sites. The most recent data (2011) suggests waste wood used for energy is around 20,000 T per year in the West Coast Region<sup>2</sup>.

#### Proposed developments

At the time of writing (March 2018) there is a proposal to develop a 300,000 tonnes (approximate) per annum waste to energy plant in Westport. Early 2018 the proposal is working through feasibility evaluation, seeking potential sources of waste (South Island and lower North Island). Funding for the proposal is still uncertain.

<sup>2</sup> In 2011 the database records approx. 364 TJ of wood energy was used by the wood processing sector in the West Coast Region. Assuming 16 GJ/T of dry wood waste suggests over 20,000 T of wood waste is used each year.  $364,000 / 16 = 22,750$  T/yr (<https://www.eeca.govt.nz/resources-and-tools/tools/energy-end-use-database/>)

### 3.1.2.3 Markets for recyclable materials

Paper, plastics and cans are consolidated and processed in New Zealand (cardboard, some plastics, and colour separated glass) or exported for re-processing (some plastics, some paper and scrap metals). International markets for recyclable materials are subject to periodic uncertainty with the most recent (late 2017, early 2018) being China's National Sword initiative, which seeks to improve the quality of recyclable materials imported into China.

At the time of writing (early 2018) a number of New Zealand local authorities are advocating strongly for a container deposit scheme similar to those in place in many states in Australia. Typical proposals target beverage containers with a small refund payable on their return to approved reception point. Introduction of this type of scheme is likely to have an impact on recyclable material markets with recovery rates likely to rise (increasing supply). In some cases kerbside recycling schemes are able to claim refunds for eligible materials i.e. the scheme could provide another source of revenue for kerbside recycling.

### 3.1.3 Landfills

The two main landfills in the West Coast Region are McLean's Pit Landfill near Greymouth and Butlers Landfill near Hokitika. There are several smaller sites that continue to operate to avoid transporting refuse long distances. These are located near Karamea, Maruia and Haast townships.

Refuse from Westport and Reefton (transfer stations and residential collections) is transported to Nelson's York Valley Landfill.

Karamea Landfill is a small site servicing Karamea and the surrounding area.

Maruia Landfill is a small site servicing the Maruia and Springs Junction areas.

McLean's Pit Landfill will start filling a new cell in 2018.

Butlers Landfill is a relatively new site with long term capacity for waste from the northern part of Westland District.

Haast Landfill is a relatively new site with capacity to accept waste from southern Westland District.

### 3.1.4 Costs for waste management

#### 3.1.4.1 Council Funding

The 2015-25 Long Term Plans<sup>3</sup> set the budgets for the waste management activity with provision to make amendments if required through the Annual Plan process. Funding for operations is through general rates, targeted rates and user charges (refuse bags in Buller District, transfer stations across the region). Funding for capital projects is from general rates. Expenditure is dominated by payments to contractors with finance costs and internal charges also featuring. This mix of funding and expenditure is projected in the Long Term Plans to continue to 2025.

In the Buller District refuse collection and transfer station services attract user charges. The user charges at rural transfer stations cover the full cost of providing the service (the sites are leased to Smart Environmental). The user charges for refuse collection (via bag and sticker sales) cover the full costs of providing the service. Kerbside recycling is covered by a targeted rate. There is provision for funding maintenance activities through general rates.

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<sup>3</sup> At the time of writing (early 2018) draft 2018 - 2028 LTP were out for consultation across the region.

In the Grey District refuse and recycling collection in Greymouth is funded by a targeted rate. In rural areas bag based refuse collection is funded by a targeted rate (bag tags provided by Council). Transfer station operations are part funded by user charges.

In Westland District refuse and recycling collection is funded by a targeted rate. Transfer station operations are part funded by user charges.

Table 1: Target rates for waste management

	Target Rate 2017/18	Service provided
Buller District Council Westport/Reefton	\$121.74	User pays refuse bags, \$4.60 each 240 L bin for paper, plastics, cans, 60L glass crate
Karamea, Maruia	\$70.43	No service
Grey District Greymouth	\$271.30	120L bin for refuse, 240L bin for recycling
Rural	\$195.10	Bag tags, roadside collection
Westland Hokitika	\$294.43	120L bin for refuse, 240L bin for recycling
Rural	\$267.66	120L bin for refuse, 240L bin for recycling

### 3.1.4.2 User Charges

Collection and transfer station services attract user charges. The user charges at Rural Transfer stations do not cover the full cost of providing the service with the shortfall covered from the targeted rate for waste management and/or general rates. The user charges for refuse collection (via bag and sticker sales) cover the full costs of providing the service. When compared with similar areas bag prices in Buller District are relatively high, most likely reflecting the rural nature of the District. The target rates are at the higher end of those in place for similar services around New Zealand. This reflects the largely rural nature of the region and relatively high disposal costs, in turn related to relatively small scale of disposal facilities.

User charges include (2017/18 figures) include:

- Buller District Council refuse bag (60 L): \$4.30 per bag (refer to Table 2 for comparison with selected refuse bag charges around New Zealand).
- Westport and Reefton Transfer Stations charges are presented in Figure 9.
- Grey District fees and charges are presented in Figure 10.
- Westland District fees and charges are presented in Figure 11.

Table 2: Refuse bag retail costs - selected New Zealand Councils

Area	Refuse Collection	Bag Charges
Whangarei	Council – bag	\$2.80/bag
Far North	Commercial - bag	\$3.00/bag
Kaipara	Council – bag	\$3.00/bag
Palmerston North	Council – bags	\$2.60/bag
Hastings	Council – bags	\$2.40/bag



Area	Refuse Collection	Bag Charges
Horowhenua (Levin)	Council – bags	\$4.00/bag <sup>4</sup>
New Plymouth	Council – bags	\$3.30/bag
Porirua, Wellington, Lower Hutt	Council – bags	\$2.50/bag

WESTPORT PRICE LIST			REEFTON PRICE LIST		
 			 		
<b>Purchase Official Rubbish Bags</b> \$4.60 each \$23.00 per roll of 5			<b>Purchase Official Rubbish Bags</b> \$4.60 each \$23.00 per roll of 5		
<b>Dump Official Rubbish Bags</b> Free of Charge			<b>Dump Official Rubbish Bags</b> No Charge		
<b>Refuse</b>	<b>General Rubbish</b>	<b>\$276.00 per tonne</b>	<b>Refuse/Rubbish</b>		<b>\$276.00 (Per Tonne)</b>
<b>Minimum Charge to</b>	<b>32kg</b>	<b>\$ 9.00</b>	<b>Minimum Charge to</b>	<b>32kg</b>	<b>\$ 9.00</b>
	<b>50kg</b>	<b>\$13.80</b>		<b>50kg</b>	<b>\$13.80</b>
	<b>100kg</b>	<b>\$27.60</b>		<b>100kg</b>	<b>\$27.60</b>
<b>Light Waste</b>	<b>Polystyrene</b>	<b>\$200.00 per m3</b>	<b>Light Waste</b>	<b>Polystyrene</b>	<b>\$200.00 per m3</b>
<b>Green Waste</b>	<b>Car</b>	<b>\$9.00 each</b>	<b>Recycling</b>	<b>Glass (Colour Sorted)</b>	<b>Free of Charge</b>
	<b>Single Axle Trailer</b>	<b>\$10.00 each</b>		<b>Under 5kgs (Domestic)</b>	<b>Free of Charge</b>
	<b>Tandem Axle Trailer</b>	<b>\$15.00 each</b>		<b>5kgs to 150kgs</b>	<b>\$6.00</b>
	<b>Truck (Over 500kg)</b>	<b>\$127.50 per tonne</b>		<b>Over 150kgs</b>	<b>\$6.00 + 0.05c per kg</b>
<b>Recycling</b>	<b>Glass (Colour Sorted)</b>	<b>Free of Charge</b>	<b>Paint</b>	<b>1 Litre Container</b>	<b>\$3.00</b>
	<b>Under 5kgs (Domestic)</b>	<b>Free of Charge</b>		<b>2 Litre Container</b>	<b>\$4.00</b>
	<b>5kgs to 150kgs</b>	<b>\$5.00</b>		<b>4 Litre Container</b>	<b>\$5.00</b>
	<b>Over 150kgs</b>	<b>\$5.00 + 0.04c per kg</b>		<b>10 or 20 Litre</b>	<b>\$7.00</b>
<b>Paint</b>	<b>1 Litre Container</b>	<b>\$3.00</b>	<b>Waste Oil</b>	<b>4 Litre Container</b>	<b>\$2.00</b>
	<b>2 Litre Container</b>	<b>\$4.00</b>		<b>20 Litre Container</b>	<b>\$4.00</b>
	<b>4 Litre Container</b>	<b>\$5.00</b>	<b>Whiteware</b>	<b>Fridge/Freezer (Degassed)</b>	<b>\$9.00 each</b>
	<b>10 or 20 Litre</b>	<b>\$7.00</b>		<b>Washing Machine</b>	<b>\$9.00 each</b>
<b>Waste Oil</b>	<b>4 Litre Container</b>	<b>\$2.00</b>	<b>Gas Bottle</b>		<b>\$9.00 each</b>
	<b>20 Litre Container</b>	<b>\$4.00</b>	<b>Tyres</b>	<b>Car</b>	<b>\$8.50 each</b>
<b>Whiteware</b>	<b>Fridge/Freezer (Degassed)</b>	<b>\$9.00 each</b>		<b>Truck</b>	<b>\$16.50 each</b>
	<b>Washing Machine</b>	<b>\$9.00 each</b>		<b>Tractor/Loader</b>	<b>\$47.50 each</b>
<b>Gas Bottle</b>		<b>\$9.00 each</b>	<b>Wood</b>	<b>Treated/Untreated</b>	<b>\$260.00 per tonne</b>
<b>Tyres</b>	<b>Car</b>	<b>\$8.50 each</b>	<b>Scrap Steel</b>	<b>Free of contaminants</b>	<b>Free of Charge</b>
	<b>Truck</b>	<b>\$16.50 each</b>	<b>Car Bodies</b>	<b>Prepared Only</b>	<b>\$50.00 each</b>
	<b>Tractor/Loader</b>	<b>\$47.50 each</b>	<b>Batteries</b>	<b>Motorbike, Car, Truck</b>	<b>Free of Charge</b>
<b>Wood</b>	<b>Treated/Untreated</b>	<b>\$260.00 per tonne</b>			
<b>Scrap Steel</b>	<b>Free of contaminants</b>	<b>Free of Charge</b>			
<b>Car Bodies</b>	<b>Prepared Only</b>	<b>\$50.00 each</b>			
<b>Batteries</b>	<b>Motorbike, Car, Truck</b>	<b>Free of Charge</b>			

Figure 9: Westport and Reefton Fees and Charges

McLeans Landfill		
<b>Refuse</b>		
Commercial Refuse*	per tonne	\$289.00
Mixed Domestic Waste*	per tonne	\$289.00
Hardfill/Soil*	per tonne	\$289.00
TVs and ewaste*	per tonne	\$289.00
Refuse Bag with Council issued tie	per bag	Free
Refuse Bag without Council issued tie*	per bag	\$4.00
* minimum charge per weighbridge entrance (trip over weighbridge)		\$12.00
<b>Tyres</b>		
Car, Motorbike	per tyre	\$6.80
4WD	per tyre	\$6.80
Truck	per tyre	\$12.30
Tractor	per tyre	\$12.80
Specialist Industrial	per tyre	\$28.50
<b>Other</b>		
Unprepared Car Bodies	per car	\$54.70
Paint/Solvents	per litre	\$2.50

<sup>4</sup> Includes \$1 per bag recycling levy - to fund kerbside recycling

Resource Centres (Moana/Blackball/Nelson Creek)		
Refuse Bag with Council issued tie	per bag	Free
Refuse Bag without Council issued tie	per bag	\$4.00
Car Boot	per load	\$25.50
Station wagon	per load	\$38.80
Utility Vehicle/Van	per load	\$38.80
Single axle trailer	per load	\$51.00
Tandem Trailer	per load	\$83.70
Truck under 5m <sup>3</sup> , uncompacted general waste	per load	\$183.60
Truck under 5m <sup>3</sup> , compacted general waste or dense material such as building waste.	per load	\$290.70
Other		
Refuse ties	each	\$3.00

Figure 10: Grey District Refuse Transfer station Fees and Charges

Hokitika Transfer Station Refuse Site Gate Fees		Hokitika Transfer Station Refuse Site Gate Fees	
<b>General Waste</b>		<b>Uncompacted Green Waste</b>	
Per tonne	\$475.00	Per Cubic Metre	\$10.00
60L bag	\$4.00	60L bag	\$0.50
<b>Green Waste</b>		Small Trailer /Ute (0.68m <sup>3</sup> )	\$6.00
Green Waste per tonne	\$46.00	Medium Trailer (0.91m <sup>3</sup> )	\$10.00
60L bag Green Waste uncompacted	\$0.50	<b>All Sites: Other Items</b>	
Accepted Recyclable Items* *Colour sorted glass will be accepted free of charge, unsorted glass will be charged at the general waste rate	Free	Whiteware (Fridges must be degassed, per item)	\$10.00
<b>Non Weighbridge Sites</b>		Tyres (Based on average weight of 7.5kg, per item)	\$3.50
<b>Uncompacted General Waste</b>		Cars Prepared (Conditions apply, per item)	\$45.00
Per Cubic Metre small loads < 0.5m <sup>3</sup>	\$65.00		
Per Cubic Metre large loads > 0.5m <sup>3</sup>	\$95.00		
60L bag	\$4.00		
120L Wheelie Bin	\$8.00		
240L Wheelie Bin	\$16.00		
Small Trailer /Ute (0.68m <sup>3</sup> )	\$65.00		
Medium Trailer (0.91m <sup>3</sup> )	\$90.00		
Cage or Large Trailer (2.7m <sup>3</sup> )	\$260.00		
Accepted Recyclable Items* *Colour sorted glass will be accepted free of charge, unsorted glass will be charged at the general waste rate	Free		

Figure 11: Westland District Refuse Transfer station Fees and Charges

## 3.2 Volume and composition of waste and diverted materials

### 3.2.1 Waste composition

Waste composition audits provide information about the make-up of a waste stream, and can help identify materials that make up large or disproportionate parts of the waste stream to target when forming waste management and minimisation strategies. The information presented is sourced



from composition surveys completed in Buller and Grey Districts. The data is consistent with composition observed in similar areas in other parts of New Zealand.

Table 3: Waste composition

Primary Category	Proportion of total	
	Landfill	Collection
Paper	9%	9%
Plastic	20%	17%
Nappies	5%	12%
Glass	2%	4%
Putrescible	23%	49%
Textiles	6%	5%
Potential Hazardous	5%	1%
Ferrous Metals	3%	2%
Non-Ferrous Metals	1%	1%
Rubber	2%	0%
Timber	13%	0%
Rubble	11%	1%
TOTAL	100%	100%

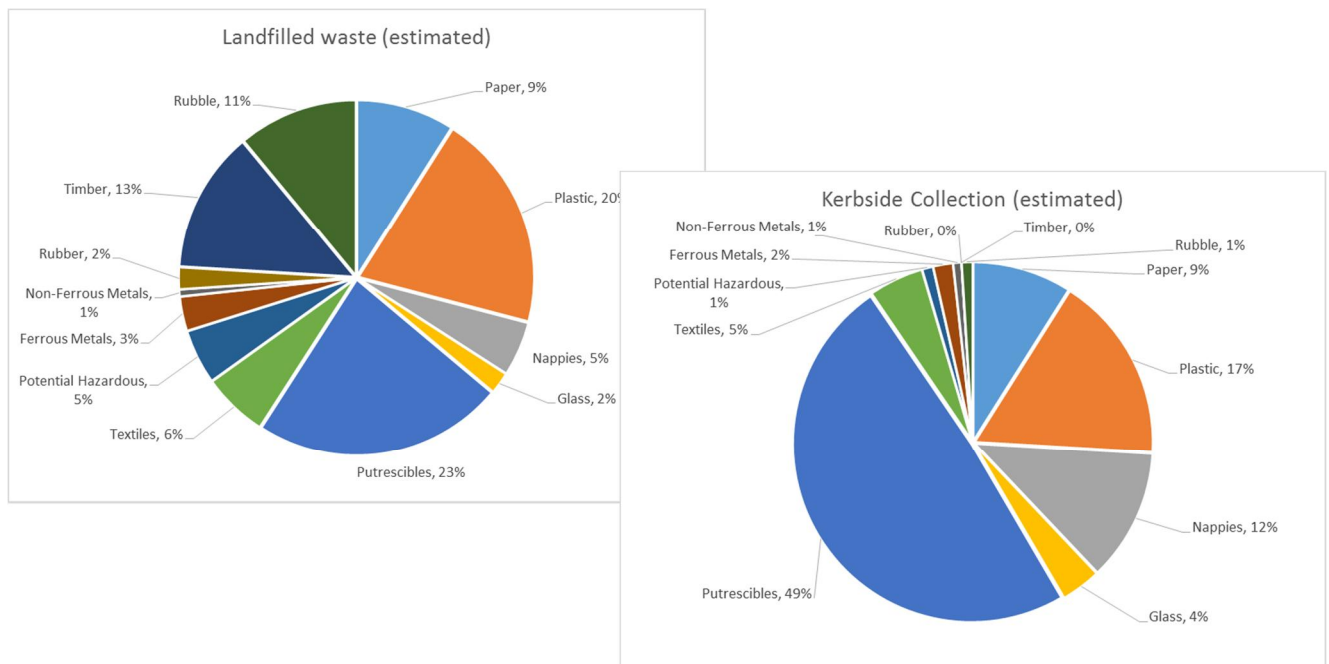


Figure 12: Estimate refuse Composition

Material taken directly to landfill or transfer station (self haul) material tends to have a larger proportion of bulky items (timber, rubble) and the putrescible fraction has a higher proportion of garden rather than food waste. This is reflected in the data presented here.

### 3.2.2 Kerbside and self haul waste quantities

#### 3.2.2.1 Kerbside Waste Quantities

Table 4 provides a summary of materials collected from the kerbside across the West Coast Region.

Table 4: Kerbside waste quantities

	2012	2013	2014	2015	2016
Buller Kerbside Refuse Collection	1,829	1,500	1,370	1,261	1,204
Buller recycle collection	-	600	631	599	622
Recycling Rate (%)	0%	29%	32%	32%	34%
Grey Kerbside Refuse Collection	2,383	1,912	2,137	2,006	2,071
Grey recycle collection	-	-	201	888	782
Recycling Rate (%)	0%	0%	9%	31%	27%
Westland Kerbside Refuse Collection	-	-	-	897	897
Westland recycle collection	-	-	-	285	303
Recycling Rate (%)				24%	25%
Total kerbside refuse	4,212	3,412	3,507	4,164	4,172
Total kerbside recycling	-	600	832	1,772	1,707
Recycling Rate (% , West Coast)		15%	19%	30%	29%

#### 3.2.2.2 Waste quantities at Refuse Transfer Stations and Landfill

In the Buller District waste in Karamea and Maruia is disposed of at small local landfills. Refuse from the rest of the District is consolidated before transport to Nelson for disposal at the York Valley Landfill. Materials are captured for recycling and transported with kerbside recyclable materials to Nelson.

In the Grey District all waste is disposed of at McLean's Landfill near Greymouth. There are Resource Centres at Blackball, Moana and Nelson Creek. Materials are captured for disposal and recycling at each site.

In the Westland District waste is disposed of at Butlers Landfill near Hokitika or Haast Landfill. There are transfer station stations at Kumara, Hokitika, Ross, Harihari, Whataroa, Franz Josef and Fox Glacier. A range of materials are captured for recycling at each site including metals, glass, paint, used oil, whiteware and green waste.

Table 5 summarises the quantity of materials managed through the region's transfer stations and landfills.

Table 5: West Coast Region - Estimated Waste Quantities via transfer stations or direct to landfill<sup>5</sup>

	2012	2013	2014	2015	2016
Refuse to Karamea and Maruia	67	111	78	105	89
Refuse to Westport and Reefton transfer stations	1,219	1,000	913	841	803
Recycle at Buller transfer stations	378	618	630	618	792
Total waste to transfer stations and landfill	1,664	1,729	1,621	1,564	1,684
Recycling rate (%)	23%	36%	39%	40%	47%
Refuse to McLeans Landfill	4,273	3,813	3,766	4,092	3,093
Recycle at transfer stations	664	680	877	1,148	1,216
Total waste to transfer stations and landfill	4,937	4,493	4,643	5,240	4,309
Recycling rate (%)	13%	15%	19%	22%	28%
Refuse to Haast (estimate)	100	100	100	100	100
Refuse to Butlers Landfill	-	-	-	2,840	2,783
Recycle at transfer stations	-	-	-	622	478
Total waste to transfer stations and landfill	100	100	100	3,562	3,361
Recycling rate (%)	0%	0%	0%	17%	14%
Recycling rate (% , West Coast)	18%	26%	31%	30%	27%
Total waste landfilled (collections and via transfer stations)	9,871	8,436	8,364	12,142	11,039
Total waste recycled	1,042	2,099	3,026	4,054	4,214
Recycling rate (% , West Coast)	10%	20%	27%	25%	28%

### 3.2.2.3 Unquantified Waste

There are several waste streams that are known to exist but are difficult to quantify. Examples include rural waste managed on farms, materials captured as part of commercial activity (e.g. scrap metal, industrial by-products, commercial recycling) and waste materials managed within manufacturing operations (e.g. biosolids from food processing operations applied to land, coal cleaning residues). This means that both waste disposed to landfill and waste diverted/recovered are likely to be underestimated.

There is an increasing level of interest in rural waste across New Zealand. As the rural sector considers the implications of current waste management approaches it is likely that increasing quantities of materials from farming activities will enter the three Council's system, either via the transfer station network or through commercial on-farm collections.

### 3.2.3 Collection and drop-off system performance

Combining the waste composition data with data on the quantity of waste disposed of to landfill and recycled provides a basis for determining the capture of various materials 'available' in the waste

<sup>5</sup> Data sourced from waste collection and transfer station contract reporting.

stream<sup>6</sup>. A summary assessment drawing on estimated quantities and composition is presented in Table 6.

Table 6: West Coast Region Waste Management System Performance

	Bags/Bins		General		Regional Recovery	
	Composition	Tonnes/yr	Composition	Tonnes/yr	Tonnes/yr	Recovery %
Total	100.0%	4,172	100.0%	6,867	4,214	27.6%
Paper	13.8%	575	10.2%	699	2,098	62.2%
Plastic	20.3%	848	21.3%	1,463	508	18.0%
Organics <sup>7</sup>	49.0%	2,045	11.2%	766	744	20.9%
Ferrous <sup>8</sup>	1.8%	75	3.1%	216	251	46.3%
Non Ferrous <sup>8</sup>	0.8%	32	0.6%	44	142	65.2%
Glass <sup>7</sup>	3.7%	153	1.2%	84	473	66.7%
Timber <sup>9</sup>	2.8%	118	14.8%	1,017	-	0.0%
Other	7.8%	326	37.5%	2,578	-	0.0%

The available data suggests there are opportunities to capture additional recyclable material through the transfer stations and kerbside collections including organic material, timber, metals, paper, plastics and glass. Specifically:

- While paper/cardboard recovery is reasonable it should be possible to increase the capture of paper and cardboard at both kerbside and transfer stations.
- Plastic recovery is low, again it should be possible to increase the capture of materials at both kerbside and transfer stations.
- Organic waste recovery is relatively low and there is a significant amount of material that could be targeted.
- Metals recovery is difficult to accurately estimate, further detail is required.
- Glass recovery is at a good level particularly given low recovery in Westland District.

As noted in Table 5, recovery via landfill and transfer stations across the West Coast is around 27%. Buller District is achieving well over 40%, supported by green waste diversion. Grey District is achieving 28% and Westland District a lower rate of around 14%.

There are other materials present in the waste stream that require careful management to avoid negative impacts. These include:

- Hazardous waste (chemicals, e-waste, used oil, asbestos).
- Difficult or special waste (tyres, bulk waste, dead animals).
- General waste (household and commercial waste).

<sup>6</sup> From Table 3, Table 4 and Table 5.

<sup>7</sup> This figure includes a conservative estimate of material captured at McLean's i.e. recovery T and % are underestimates.

<sup>8</sup> This figure does not include materials handled by scrap metal dealers i.e. recovery T and % are underestimates.

<sup>9</sup> No West Coast specific data, some material captured at transfer stations.

Waste from certain sources can also present challenges or opportunities and is worthy of consideration. Examples include:

- Rural waste - waste from the business of farming including agricultural plastics (wrap and chemical containers), unwanted chemicals, timber and machinery (including maintenance related waste, for example used oil).
- Waste from major processing sites - examples include waste treatment residuals (for example sludge), packaging (pallet wrap, broken pallets) and containers (cleaners, ingredients, maintenance products).

### 3.3 Summary of district-specific issues

#### 3.3.1 Waste Infrastructure - Issues Identified (Section 2.5 of the Waste Assessment)

In collating and considering information about the delivery of waste services in the West Coast Region a number of issues were identified. These issues represent challenges in delivering effective services and achieving the aims of the NZ Waste Strategy - reducing environmental harm and maximising resource efficiency. In many cases the issues also present opportunities for Councils, the community and/or the private sector to improve waste minimisation and management in the Region.

The issues identified include:

- Transfer stations - there are variable services across the Region.
- There is a lack of consistency in services for visitors to the Region.
- There are 3 MRFs in the Region sorting similar materials.
- The two major landfills in the Region are close to each other.
- Costs are relatively high, but likely reasonable in light of scale and transport distances.
- There are limited services for commercial and construction waste, with limited information available regarding diversion activity focussed on these waste streams.
- Lack of collections for glass in Westland District and issues with glass contamination in Grey District.

#### 3.3.2 Waste data - issues and constraints (Section 3.6 of the Waste Assessment)

While there is some information available about the quantity and composition of waste generated in the West Coast Region the data is incomplete. The available data needs to be interpreted considering that:

- There is a mix of volume based estimates and measured weights.
- The source of waste is not always clear.
- There is limited data on coverage, set out rate or participation rates for kerbside collection.
- The data regarding quantity of waste collected or processed is not complete. For example:
  - The quantity of waste collected from commercial premises for recycling has not been quantified
  - The quantity of waste generated on rural properties and processed or disposed on site has not been quantified.

There are by-laws in place (refer Section 4) that provides for collection of data on collection services including quantities of material collected, destination for disposal or processing and coverage, set out and participation rates. Implementation of the by-law in close consultation with collection and

processing companies operating in the West Coast Region will improve the availability and quality of data available.

There is also potential to improve the reporting of waste materials handled by contractors on behalf of the Councils. Reporting on activity as part of contract obligations should include appropriately detailed reporting on waste source, quantity and destination.

## 4 Policies, plans and regulation

### 4.1 Summary of guiding policies, plans and legislation that affect the WMMP

There is wide a range of statutory documents and associated policy that impacts on waste minimisation and management in the West Coast Region. These are summarised in Table 7, further detail is provided in the West Coast Regional Waste Assessment (2018).

Table 7: Selected Relevant Policy for waste in West Coast Region (Table 1 from the WA)

National	Regional	Local
Waste Minimisation Act 2008	West Coast Regional Policy Statement	Long Term Plans 2015-2025
NZ Waste Strategy 2010	West Coast Regional Air Quality Plan	District Plans
Resource Management Act 1991	West Coast Regional Coastal Plan	Bylaws
Local Government Act 2002	West Coast Regional Land and Water Plan	Asset Management Plans
Climate Change Response Act 2002	Regional Waste Strategy for the West Coast	Solid waste management policies and plans
Health Act 1956	West Coast Visitor Waste Management Strategy	
NZ Emissions Trading Scheme		

### 4.2 Statutory requirements

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

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

- a *objectives and policies for achieving effective and efficient waste management and minimisation within the territorial authority's district*
- b *methods for achieving effective and efficient waste management and minimisation within the territorial authority's district, including -*
  - i *collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste management and minimisation needs (whether provided by the territorial authority or otherwise); and*
  - ii *any waste management and minimisation facilities provided, or to be provided, by the territorial authority; and*
  - iii *any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority*
- c *how implementing the plan is to be funded*
- d *if the territorial authority wishes to make grants or advances of money in accordance with section 47, the framework for doing so.*

A WMMP must have regard to the waste hierarchy, the New Zealand Waste Strategy, and the most recent Waste Assessment.



## 5 Vision, goals, objectives and targets

### 5.1 Background

The preparation of this Waste Assessment has included review of the Vision - Goals Objectives framework set out in the previous WMMP. The relationship between Vision, Goals and Objectives is illustrated in Figure 13<sup>10</sup> and defined in Table 8<sup>10</sup>.

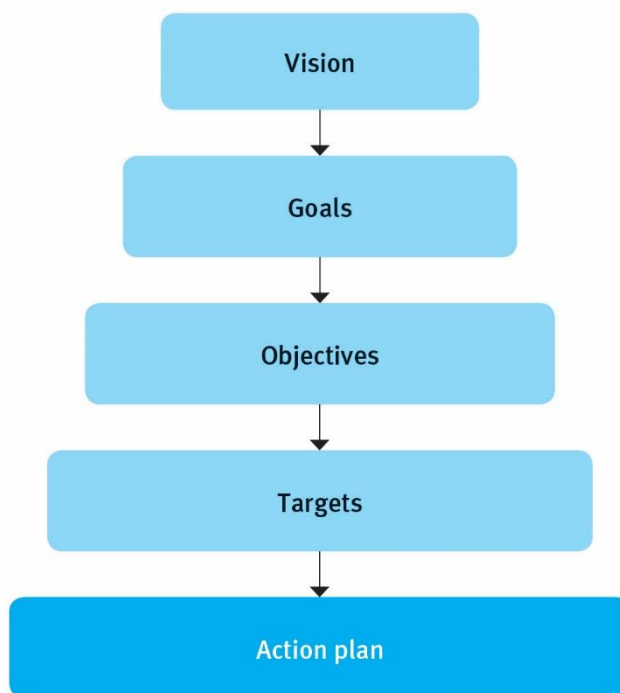


Figure 13: Vision, goals, objectives and targets

Table 8 provides definitions for vision, goals, objectives and targets.

Table 8: Definitions for vision, goals, objectives and targets (adapted from MfE 2015)

Vision	The aspirational outcome for the West Coast Region - providing an overall direction and focus.
Goal	What the Councils want to achieve through the WMMP. The goal is not aspirational; it is achievable. It is a major step in achieving Council's vision for the WMMP.
Objective	The specific strategies and policies to support the achievement of the goals. Objectives are 'SMART' (specific, measurable, achievable, relevant and timely).
Target	A clear and measurable way to determine how well the Council is achieving its goals. Targets should also be SMART.

<sup>10</sup> Sourced from Waste Assessments and Waste Management and Minimisation Planning – A Guide for Territorial Authorities, MfE 2015.

## 5.2 Vision, goals, objectives and targets

The vision for waste minimisation and management in the West Coast Region is<sup>11</sup>:

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

The goals for waste minimisation and management in the West Coast Region are to:

- 1 Avoid and reduce waste where we can
- 2 Manage waste responsibly
- 3 Maximise community benefit

The objectives for waste minimisation and management in the West Coast Region are:

- 1 To avoid creating waste
- 2 To make it easy to recycle
- 3 To ensure visitors, households and businesses have access to safe disposal of residual waste
- 4 To reduce illegal dumping and litter
- 5 To create opportunities for West Coast - community partnerships, jobs, innovation and efficient business
- 6 To improve community understanding of issues and opportunities for waste management on the West Coast
- 7 Councils work with others to improve waste minimisation and management in New Zealand

Table 9 provides a summary of the Vision - Goals and Objectives presented above and associated targets for waste minimisation and management in the West Coast Region.

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<sup>11</sup> This vision has been developed in workshops with Councillors and staff from the three District councils.

Table 9: Vision - Goals - Objectives - Targets

Vision:	<i>To deliver community benefits and reduce waste. West Coast businesses and households will be provided with efficient and effective waste minimisation and management services.</i>	
Objective	Relevant Goal(s)	Target(s)
1. To avoid creating waste	<ul style="list-style-type: none"> <li>1. Avoid and reduce waste where we can.</li> <li>3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.</li> </ul>	<p>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 &lt; 300 kg per person each year</p>
2. To make it easy to recycle	<ul style="list-style-type: none"> <li>1. Avoid and reduce waste where we can.</li> <li>2. Manage waste responsibly - make it easy to recycle and safely dispose of the materials that can't be recycled.</li> <li>3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.</li> </ul>	<p>2.1 <i>Increase in the proportion of material captured for recycling at kerbside and transfer stations. The current figures are 29% and 27% respectively.</i>  <i>Kerbside recycling &gt; 35% by 2025</i>  <i>Recycling at Refuse Transfer stations &gt; 50% by 2025</i></p> <p>2.2 <i>Establish simple and effective recycling services for visitors to the West Coast Region.</i>  <i>Establish 5 refuse 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.</i></p>
3. To ensure visitors, households and businesses have access to safe disposal of residual waste	<ul style="list-style-type: none"> <li>2. Manage waste responsibly - make it easy to recycle and safely dispose of the materials that can't be recycled.</li> <li>3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.</li> </ul>	<p>3.1 <i>Satisfaction with kerbside refuse and transfer station services.</i>  <i>Resident and visitor satisfaction &gt; 85%</i>  <i>Establish 5 refuse and recycling depots at key visitor locations on the West Coast by 2022</i></p>

Vision:	<i>To deliver community benefits and reduce waste. West Coast businesses and households will be provided with efficient and effective waste minimisation and management services.</i>	
Objective	Relevant Goal(s)	Target(s)
4. To reduce illegal dumping and litter	2. Manage waste responsibly - make it easy to recycle and safely dispose of the materials that can't be recycled.	4.1 Reduction in illegal dumping incidents and quantity of material illegally dumped in the West Coast Region. (Establishing refuse recycle and waste 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	3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.	5.1 To publish a summary of available data on waste generation and management with each annual report. <i>Summary data published in Annual Report</i> <i>To create a grant scheme to support new initiatives to reduce waste</i>
6. To improve community understanding of issues and opportunities for waste management on the West Coast.	1. Avoid and reduce waste where we can. 2. Manage waste responsibly - make it easy to recycle and safely dispose of the materials that can't be recycled. 3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.	6.1 Schools programmes supported by Council Support the Enviroschools programme each year. 6.2 Council (or contractors) promote waste minimisation at events in the Region. <i>Councils promote waste minimisation at &gt; five events in the Region each year.</i> 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.	1. Avoid and reduce waste where we can. 3. Maximise community benefits - employment, reuse of materials for economic benefit, cost effective services.	7.1 Work with others to influence national policy and action on waste minimisation and management.

### 5.3 Council's intended role

Councils will continue to adopt a mixed user pays, general rate and targeted funded approach to delivery of waste transfer and disposal services in their District. Where there are services with a public good component Councils will provide funding in whole or in part. Examples include kerbside recycling, rural transfer stations, servicing of litter bins, cleaning up illegal dumping and the management of closed landfills.

Councils will continue to own and support the operation of some key infrastructure for waste minimisation and management in each District. This includes the transfer station network, Materials Recovery Facilities and landfills (Karamea, Maruia, McLean's, Butlers and Haast).

Councils will provide information on waste minimisation and management to the households and businesses and make staff available for education purposes. Councils will also work closely with other promoters of effective waste minimisation and management including the West Coast Regional Council and the WasteMINZ Behaviour Change Sector Group.

Councils recognise that many local waste management issues are more effectively managed through coordinated activity at a national level. Councils will collaborate with central government, local government organisations, non government organisations (NGO) and other key stakeholders to progress national activity on resource efficiency and waste management issues. This may include advocating for product stewardship schemes for challenging waste streams (e-waste, tyres, packaging, rural waste), highlighting the role of other national policy including application of the waste levy and regulation of waste management activity.

### 5.4 Protecting public health

Waste, particularly putrescible and hazardous waste, has the potential to be detrimental to health. Therefore, a key objective of any waste minimisation and management system is to protect public health. The risk of public health impacts can be significantly reduced by avoiding, where possible, and carefully managing, where not, contact with waste. In practice this means:

- Containing waste effectively, including:
  - Providing appropriate containers at point of generation e.g. workspace, kitchen, etc.
  - Providing appropriate containers for storing waste prior to collection - these may be reusable (wheelie bins) or single use (rubbish bags).
  - Providing dedicated public drop off areas at transfer stations and landfills.
  - Regular collection and disposal.
  - Suitable collection and transport vehicles.
  - Disposal at well constructed and operated landfills including provision of appropriate barrier systems such as base liner and adequate daily, intermediate and final cover.
- Excluding as far as possible vermin<sup>12</sup> that may spread waste or associated contaminants.

The measures proposed in the WMMP have been developed with public health objectives at the forefront.

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<sup>12</sup> For example rodents, other stray animals, insects (flies, wasps).

## 6 Options for achieving effective and efficient waste management and minimisation

### 6.1 Introduction

Section 51 of the WMA requires that a Waste Assessment contain a statement of options available to meet the forecast demands of the district 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 district and to meet the goals set out in Section 5. The preferred options from this assessment will be incorporated into the WMMP as methods and feature in the Action Plan.

For the West Coast Region the total quantity of waste generated is forecast to increase over the life of this plan in line with population and economic activity. Infrastructure planning needs to take account of this growth.

The available data suggests that there is potential to increase the diversion of material from the current estimate of almost 30% across the waste management system. There are also ongoing issues with illegal dumping, challenges with obtaining robust data on waste and recycling activity and the potential for increasing quantities of materials entering the waste stream from rural properties. The focus of option identification and evaluation has been addressing these issues alongside meeting forecast demands.

### 6.2 Identifying options

There are a wide range of approaches to providing waste minimisation and management services and programmes that could be adopted in the West Coast Region. A useful way to consider options is the model set out in Figure 14. Simply put, effective waste minimisation and management relies on a combination of infrastructure (including collection), education/information and regulation or policy. These are supported by having the right data to inform strategic and operational decision making.

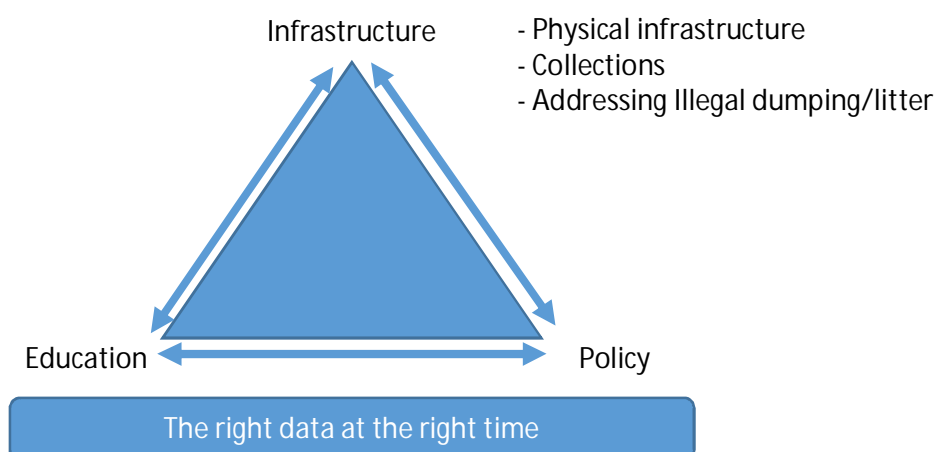


Figure 14: Effective Waste Minimisation and Management

For this waste assessment options have been identified by considering key challenges for waste minimisation and management in the West Coast Region (Refer Section 3.3), referencing approaches

adopted elsewhere and looking for new solutions where appropriate. Options have also been considered with reference to the current recovery rates of key materials<sup>13</sup> (see Section 3.2.3).

Based on the model set out in Figure 14 options considered can be grouped as follows.

#### Infrastructure

- Providing collection services - collection of waste, recyclable materials (at kerbside or transfer station), organic waste and/or bulky items, litter bins.
- Providing physical infrastructure - fixed location or mobile drop off facilities, waste sorting, waste processing and/or disposal facilities.
- Managing the negative impacts of waste - litter/illegal dumping clean-up, closed landfills.

#### Education

- Changing behaviour - education programmes targeting schools, businesses and/or households.
- Support infrastructure - information on how to use collection and drop-off services to maximise recovery and maintain the quality of recovered materials (to maximise their value).
- Contributing to national education/information programmes.

#### Policy

- Implementation of licensing provisions in the existing by-law (funding, service level, litter, data provision).
- Data collection via licensing of waste operators (as above).
- Targeted data collection, for example waste surveys.
- Making information on waste issues and opportunities available.
- Grant co-funding for projects that deliver on the goals and objectives for waste minimisation and management.
- Working with Councils and other stakeholders to progress national debate on waste issues and policy.

These options focus on the priority waste streams identified through the review of the current situation in Section 3.2.3 and summarised in Table 10.

Table 10: Priority wastes and waste sources

Recyclable materials	Other materials requiring active management include:	Waste sources
• Visitor's waste	• Hazardous waste	• Rural waste
• Organic Waste	• Difficult or special waste	• Industrial processing
• Glass	• General waste	
• Paper/Cardboard	• E-waste	
• Plastics		
• Timber		

### 6.3 Options for the future

Based on the analysis and discussion presented in the Waste Assessment (Appendix A) the following options should be included in an action plan for the West Coast Region WMMP.

<sup>13</sup> Key materials include paper/card, plastics, glass, organic waste, metals, glass and timber



### Infrastructure actions

- Investigate and maintain a watch on wheelie bin based user pays technology for refuse collection.
- Investigate a transition to two stream (co-mingle recyclables + separate glass) for kerbside recycling services across the Region.
- Investigate<sup>14</sup> a periodic garden waste collection service (most likely combined with a bulky waste collection service).
- Investigate<sup>14</sup> optimising services for bulky household waste including the role of the regional transfer station network and potential bulky waste collections (scheduled for all households or on demand).
- Implement recycle/waste stations at tourism hotspots across the West Coast - trail the approach in Buller District (North Beach, Punakaiki) and then roll out to other locations.
- Investigate/Trial<sup>15</sup> dry waste (construction waste, commercial waste) sorting including the use of charging to incentivise semi-sorted loads at key transfer stations.
- Implement processing of shredded green waste and sludge in Greymouth, Hokitika (and potentially Reefton).
- Investigate consolidating MRF operations and options for glass (local processing and beneficial use).
- Investigate combining Grey District and northern Westland District refuse disposal in the medium term (as cells at Butlers and/or McLean's Landfills are completed).
- Maintain a watch on the proposal Westport waste to energy proposal.

### Education actions

- Continue to update and maintain information on waste and recycling collection and drop off services in the West Coast Region on Council websites and information for visitors.
- Disseminate information on waste minimisation and management to all residents (including holiday makers/temporary residents) including national programmes like Love Food Hate Waste.
- Maintaining school education programme, support existing environmental education activities for schools, homes and businesses.

### Policy Actions

- Develop criteria for making grants available from Council's allocation of Waste Levy funds. Provisionally criteria will be based on contribution to the Vision, Goals and Objectives for waste minimisation and management with consideration of co-funding. Applications for funding should also be assessed for their ability to deliver the promised benefits i.e. due diligence on organisation capability, governance and accountability.
- Develop a regional solid waste bylaw and associated implementation plan targeting implementation of a licencing regime in 2019.
- Continue to report on progress against the targets in the WMMP in Annual Reports.

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<sup>14</sup> Detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

<sup>15</sup> Look at Westport, Reefton, McLeans and Hokitika transfer stations, detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

- Collaborate with central government, local government organisations, non government organisations (NGO) and other key stakeholders to progress national activity on waste minimisation and management policy<sup>16</sup>.
- Continue to actively address illegal dumping activity including where possible identifying perpetrators and if required undertaking clean-up activity.

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<sup>16</sup> Including policy and analysis relating to tourism waste

## 7 Funding the plan

### 7.1 Plan implementation funding

The funding of the implementation of this WMMP will come from user charges, rate payer funds and levy payments returned to the Council.

User charges will fund kerbside refuse collection (in Buller District, to be considered using RFID technology in Grey District and Westland District), disposal of materials at landfill and the disposal or management of materials at Transfer Stations.

Ratepayer funds will provide public good focussed services. Examples include kerbside recycling collection, tourist hot spot recycle/waste stations, supporting transfer station operations where user charges are not adequate to cover the full cost of operation, illegal dumping clean-ups, litter bin servicing, licensing implementation, education activities and reporting on plan implementation.

Levy payments will fund waste education and selected recycling and recovery activities at transfer stations i.e. activities that promote or achieve the Goals and Objectives of this WMMP.

Details of funding sources, quantities and allocation can be found in each Council's Long Term Plan and Annual Plan updates to the Long Term Plan.

### 7.2 Grants and advances of monies

As part of the implementation of the WMMP the Councils will develop criteria for making grants available from each Council's allocation of Waste Levy funds. The amount of money available for grants will be determined as part of the Annual Plan process but is expected to be in the order of 15% of the levy funding received by each Council.

Criteria will be based on the funded activities contribution to promoting and achieving the Vision, Goals and Objectives for waste minimisation and management. Activities with co-funding will be preferred with 50% or more contribution from partners other than Council expected.

Applications for funding will also be assessed for their ability to deliver the promised benefits. Specific areas for assessment will include organisation capability to deliver the project, governance arrangements, accountability and track record in delivering similar projects.

### 7.3 Waste minimisation levy expenditure

Waste minimisation levy funds will continue to be spent supporting waste minimisation activities including environmental education, contributing to recycling at transfer stations, information for residents and businesses and targeted investigations into new waste minimisation initiatives.

## 8 Monitoring, evaluating and reporting progress

This WMMP will only have an impact in the West Coast Region if appropriate action is taken to achieve the Vision - Goals - Objectives. The Targets (Section 5.2) provide high level measures of progress. Monitoring, evaluation and reporting will focus on gathering data to assess progress against these targets.

### 8.1 Monitoring and evaluation

The assessment of the current situation highlighted gaps in information about waste generation, collection, processing and management in the West Coast Region. In some cases information exists but is not available to council<sup>17</sup> while in others, data is not currently available<sup>18</sup>.

Progress in achieving the Vision - Goals - Objectives of this WMMP will be monitored by collecting the data outlined in Table 11.

Table 11: Data source and description

Data Source	Information	Comment
Council contractors	Illegal dumping Litter (bins, clean-up) Kerbside refuse Kerbside recycling Transfer station refuse Transfer station recycling/recover Recycling station recycling Landfill refuse	Contract reporting
Other collectors	Kerbside/Business refuse	By-law data requirements
Waste processor	Materials processed	By-law data requirements
Council contact database	Illegal dumping incidents	
Customer Surveys	Residents satisfaction	
Council Activity Reporting (Annual Report)	By-law implementation (licensing) Data summary	
Targeted data collection	Solid Waste Analysis Protocol Surveys (waste composition) Kerbside collection surveys (participation, set out rates) Recycling contamination survey	Contract requirement or targeted survey

Some of the activities in the Action Plan are focussed on securing the information noted in Table 11. For example ongoing implementation of licensing (based on the existing by-laws) and improving reporting under existing and future council contracts.

Evaluation of the data collected will focus on measuring progress against the targets set out in Section 5.2. The periodic review of the Action Plan (see Section 10 of the Action Plan) will consider how effective the actions underway or completed have been in achieving the Vision - Goals - Objectives of this Plan.

<sup>17</sup> For example regarding private sector collection services.

<sup>18</sup> For example regarding the number of households participating in the kerbside recycling collection service.

## 8.2 Reporting

Progress on implementing this WMMP will be reporting in the each of the Council's Annual Reports each year. Reporting will note current performance against the targets based on available information. In the early stages of the Plan implementation it is likely that there will be significant gaps in the available data limited Council's ability to quantify progress.

9 Part B – Action Plan

## 10 Introduction

This Action Plan sets out the programme of action for achieving the Vision - Goals - Objectives and targets of the WMMP, as described in Part A – Strategy (Section 5), and should be considered in conjunction with the full WMMP.

This Action Plan covers the full life (six years) of the WMMP but provides more detail for years one and two. The Action plan sets out actions with operational and financial implications for each Council.

Consistent with each Council's operational planning obligations under the Local Government Act 2002 activities set out in this Action Plan will need to be reflected in the relevant Long Term Plan and Annual Plan<sup>19</sup>. This means the plan should be reviewed as part of the annual planning process (with a focus on 12-18 months of future activity) and Long Term Planning process (with a focus on a 3-5 year horizon).

The operational planning and funding implications of the activities set out in this Action Plan are noted in the Action Planning tables.

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<sup>19</sup> Currently 2018-2028 Long Term Plan and 2017/18 Annual Plan



## 11 Funding structure [see also Part A, section 6]

(Repeat of Section 7)

The funding of the implementation of this WMMP will come from user charges, rate payer funds and levy payments returned to the Council.

User charges will fund kerbside refuse collection (in Buller District, to be considered using Rfid technology in Grey District and Westland District), disposal of materials at landfill and the disposal or management of materials at Transfer Stations.

Ratepayer funds will provide public good focussed services. Examples include kerbside recycling collection, tourist hot spot recycle/waste stations, supporting transfer station operations where user charges are not adequate to cover the full cost of operation, illegal dumping clean-ups, litter bin servicing, licensing implementation, education activities and reporting on plan implementation.

Levy payments will fund waste education and selected recycling and recovery activities at transfer stations i.e. activities that promote or achieve the Goals and Objectives of this WMMP.

Details of funding sources, quantities and allocation can be found in each Council's Long Term Plan and Annual Plan updates to the Long Term Plan.

### 11.1 Grants and advances of monies

As part of the implementation of the WMMP the Councils will develop criteria for making grants available from each Council's allocation of Waste Levy funds. The amount of money available for grants will be determined as part of the Annual Plan process, but is expected to be in the order of 15% of the levy funding received by each Council.

Criteria will be based on the funded activities contribution to promoting and achieving the Vision, Goals and Objectives for waste minimisation and management. Activities with co-funding will be preferred with 50% or more contribution from partners other than council expected.

Applications for funding will also be assessed for their ability to deliver the promised benefits. Specific areas for assessment will include organisation capability to deliver the project, governance arrangements, accountability and track record in delivering similar projects.

### 11.2 Waste minimisation levy expenditure

Waste minimisation levy funds will continue to be spent supporting waste minimisation activities including environmental education, contributing to recycling at transfer stations, information for residents and businesses and targeted investigations into new waste minimisation initiatives.

## 12 Targets and measurement

The targets set out in Section 5.2 of Part A of this WMMP provide a high level measure of progress. Monitoring, evaluation and reporting will focus on gathering data to assess progress against these targets, inform refinement of existing actions and development of future actions.

Progress in achieving the Vision - Goals - Objectives of this WMMP will be monitored by collecting the data outlined in Table 12 (repeating Table 11 from Section 8 Monitoring, evaluating and reporting progress).

Table 12: Data source and description

Data Source	Information	Comment
Council contractors	Illegal dumping Litter (bins, clean-up) Kerbside refuse Kerbside recycling Transfer station refuse Transfer station recycling/recover Recycling station recycling Landfill refuse	Contract reporting
Other collectors	Kerbside/Business refuse	By-law data requirements
Waste processor	Materials processed	By-law data requirements
Council contact database	Illegal dumping incidents	
Customer Surveys	Residents satisfaction	
Council Activity Reporting (Annual Report)	By-law implementation (licensing) Data summary	
Targeted data collection	Solid Waste Analysis Protocol Surveys (waste composition) Kerbside collection surveys (participation, set out rates) Recycling contamination survey	Contract requirement or targeted survey

Some of the activities in this Action Plan are focussed on securing the information noted in Table 12. For example ongoing implementation of licensing (based on the existing by-law) and improving reporting under existing and future council contracts.

Periodic review of the Action Plan (see Section 10 of the Action Plan) will consider how effective the actions underway or completed have been in achieving the Vision - Goals - Objectives of this Plan. Table 13 links Targets to measures noted in Table 12. Table 14 provides definitions for key measures.

Table 13: Measuring progress against targets

Target	Measure
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 approximately 340 kg per person. Waste disposed of to landfill < 300 kg per person each year	T of waste disposed of to landfill per capita
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 Refuse Transfer stations > 50% by 2025	% of waste recycled per year
2.2 Establish simple and effective recycling services for visitors to the West Coast Region Establish 5 refuse and recycling depots at key visitor locations on the West Coast by 2022	
3.1 Satisfaction with kerbside refuse and transfer station services. Resident and visitor satisfaction > 85% Establish 5 refuse 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.	Residents satisfaction survey results Number of refuse and recycling depots established.
4.1 Reduction in illegal dumping incidents and quantity of material illegally dumped in the West Coast Region. (Refer also establishing refuse recycle and waste stations). Quantity of illegally dumped waste < 2016/17 figure. The number of illegal dumping incidents is < 2016/17 figure.	Number of incidents and quantity of illegally dumped material.
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	Summary reporting on WMMP in each Annual Report. Grant applications invited.
6.1 Schools programmes delivered by Council. Support the EnviroSchools programme each year.	Number of school in education programmes.
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.	Number of events with waste minimisation plans and reporting.
6.3 Inform and support West Coast residents and businesses on waste minimisation opportunities. Information made available and regularly updated on Council websites.	Information available to residents and business.
7.1 Work with others to influence national policy and action on waste minimisation and management.	

Table 14: Measure definitions

Measure	Definition
T of waste disposed of to landfill per capita	Total quantity of waste disposed of to landfill (from contract and by-law reporting) divided by West Coast Region usually Resident Population.
T of waste recycled per year	Total quantity of waste recycled or recovered (from contract and by-law reporting) divided by Total quantity of waste disposed of to landfill (from contract and by-law reporting).
Residents satisfaction	[Measure as defined in LTP 2015-2025] or later LTP.
T of illegal dumped material	Total quantity of illegally dumped material picked up by West Coast Region contractors per year.

## 13 Action plan (See also Section 5.3)

The action plan as set out in the following pages has been developed to enable the West Coast Region Councils and community to work towards achieving the Vision - Goals - Objectives set out in the Regional WMMP. The Action Plan provides a detailed plan of action for years one and two, with long term actions mentioned but not detailed. Where actions have operational or financial implications they need to be confirmed in the Councils core planning documents - the Long Term Plan and Annual Plan.

The Waste Assessment recommended the following options be included in an action plan for the West Coast Region Council WMMP.

### Infrastructure actions

- Investigate and maintain a watch on wheelie bin based user pays technology for refuse collection.
- Investigate a transition to two stream (co-mingle recyclables + separate glass) for kerbside recycling services across the Region.
- Investigate<sup>20</sup> a periodic garden waste collection service (most likely combined with a bulky waste collection service).
- Investigate<sup>14</sup> optimising services for bulky household waste including the role of the regional transfer station network and potential bulky waste collections (scheduled for all households or on demand).
- Implement recycle/waste stations at tourism hotspots across the West Coast - trail the approach in Buller District (North Beach, Punakaiki) and then roll out to other locations.
- Investigate/Trial<sup>21</sup> dry waste (construction waste, commercial waste) sorting including the use of charging to incentivise semi-sorted loads at key transfer stations.
- Implement processing of shredded green waste and sludge in Greymouth, Hokitika (and potentially Reefton).
- Investigate consolidating MRF operations and options for glass (local processing and beneficial use).
- Investigate combining Grey District and northern Westland District refuse disposal in the medium term (as cells at Butlers and/or McLean's Landfills are completed).
- Maintain a watch on the proposal Westport waste to energy proposal.

### Education actions

- Continue to update and maintain information on waste and recycling collection and drop off services in the West Coast Region on Council websites and information for visitors.
- Disseminate information on waste minimisation and management to all residents (including holiday makers/temporary residents) including national programmes like Love Food Hate Waste.
- Maintaining school education programme, support existing environmental education activities for schools, homes and businesses.

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<sup>20</sup> Detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

<sup>21</sup> Look at Westport, Reefton, McLeans and Hokitika transfer stations, detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

## Policy Actions

- Develop criteria for making grants available from Council's allocation of Waste Levy funds. Provisionally criteria will be based on contribution to the Vision, Goals and Objectives for waste minimisation and management with consideration of co-funding. Applications for funding should also be assessed for their ability to deliver the promised benefits i.e. due diligence on organisation capability, governance and accountability.
- Develop a regional solid waste bylaw and associated implementation plan targeting implementation of a licencing regime in 2019.
- Continue to report on progress against the targets in the WMMP in Annual Reports.
- Collaborate with central government, local government organisations, non government organisations (NGO) and other key stakeholders to progress national activity on waste minimisation and management policy<sup>22</sup>.
- Continue to actively address illegal dumping activity including where possible identifying perpetrators and if required undertaking clean-up activity.

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<sup>22</sup> Including policy and analysis relating to tourism waste

## 13.1 Action planning tables

Table 15: Infrastructure actions

Action (Infrastructure)	Timeline	Funding	Objective(s)	Target(s)
a. Investigate and maintain a watch on wheelie bin based user pays technology for refuse collection.	Ongoing, contract rollover	Rates (existing)	3	3.1
b. Investigate a transition to two stream (co-mingle recyclables + separate glass) for kerbside recycling services across the Region.	July 2019 Contract rollover for Westland	Rates (new)	2	2.1
c. Investigate <sup>23</sup> a periodic garden waste collection service (most likely combined with a bulky waste collection service).	June 2020	Rates (existing)	1, 2, 3	1.1, 2.1, 2.2, 3.1
d. Investigate <sup>14</sup> optimising services for bulky household waste including the role of the regional transfer station network and potential bulky waste collections (scheduled for all households or on demand).	June 2020	Rates (existing)	1, 2, 3	1.1, 2.1, 2.2, 3.1
e. Implement recycle/waste stations at tourism hotspots across the West Coast - trail the approach in Buller District (North Beach, Punakaiki) and then roll out to other locations.	From July 2018 Buller by June 2019, West Coast 2021	Rates (new)	1, 2, 3, 4	1.1, 2.1, 2.2, 3.1, 4.1
f. Investigate/trial <sup>24</sup> dry waste (construction waste, commercial waste) sorting including the use of charging to incentivise semi-sorted loads at key transfer stations.	June 2020	Rates (new) and user charges	1, 2, 3	1.1, 2.1, 2.2, 3.1
g. Implement processing of shredded green waste and sludge in Greymouth, Hokitika (and potentially Reefton).	June 2020	Rates (new)	1, 2, 3	1.1, 2.1, 2.2, 3.1
h. Investigate consolidating MRF operations.	Dec 2018	Rates (existing)	1, 2	1.1, 2.1, 2.2

<sup>23</sup> Detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

<sup>24</sup> Look at Westport, Reefton, McLeans and Hokitika transfer stations, detailed analysis of options considering cost of service, diversion of materials, fairness/equity, safety and protection of the environment (illegal dumping).

Action (Infrastructure)	Timeline	Funding	Objective(s)	Target(s)
i. Investigate combining Grey District and northern Westland District refuse disposal in the medium term (as cells at Butlers and/or McLeans Landfills are completed).	On cell completion.	Rates (existing)	3	
j. Maintain a watch on the proposal Westport waste to energy proposal.	Ongoing	Rates (existing)	3	

Table 16: Education actions

Actions (Education)	Timeline	Funding	Objective(s)	Target(s)
k. Continue to update and maintain information on the Council website regarding waste and recycling collection and drop off services in the West Coast Region.	Ongoing	Rates (existing)	1, 2, 3, 6	1.1, 2.1, 2.2, 3.1, 6.2, 6.3
l. Provide clear information and education to promote the effective use of private sector (for example farm plastics, soft plastics recycling, Paintwise) and Council operated recycling services.	Ongoing	Rates (existing)	1, 2, 3, 6	1.1, 2.1, 2.2, 3.1, 6.3
m. Disseminate information on waste reduction to all residents (including holiday makers/temporary residents) including national programmes like Love Food Hate Waste.	Ongoing	Rates (existing)	1, 6, 7	1.1, 6.3, 7.1
n. Maintaining school education programme, support environmental education activities for schools, homes and businesses.	Ongoing	Rates (existing)	6	6.1
o. Provide information to the community about the negative impact of illegal dumping and alternatives available to the community (kerbside collection, commercial skip bins and transfer stations).	Ongoing	Rates (existing)	5, 6	5.1, 5.2, 6.3



Table 17: Policy actions

Actions (Policy)	Timeline	Funding	Objective(s)	Target(s)
p. Develop criteria for making grants available from Council's allocation of Waste Levy funds. Provisionally criteria will be based on contribution to the Vision, Goals and Objectives for waste minimisation and management with consideration of co-funding. Applications for funding should also be assessed for their ability to deliver the promised benefits i.e. due diligence on organisation capability, governance and accountability. Consideration also needs to be given to ensuring that funding supports new or expanded activities rather than supporting the status quo.	June 2019	Waste levy	5	5.1
q. Develop a regional solid waste bylaw and associated implementation plan targeting implementation of a licencing regime in 2019. Review and amend the existing Solid Waste Bylaws (Grey District and Westland District). This will focus on licensing, provision of recycling and consider limiting receptacle size <sup>25</sup> . With a small number of collection providers operating in the Region Councils are in a position to develop pragmatic but effective approach. This will require consultation with the collection providers prior to formally notifying any proposed changes. The target implementation for the updated bylaw is December 2019.	Dec 2019	Rates (existing)	1, 2, 3	1.1, 2.1, 3.1
r. Continue to report on progress against the targets in the WMMP in Annual Reports.	June 2018 and ongoing	Rates (existing)	5	5.1
s. Collaborate with local government organisations, non government organisations (NGO) and other key stakeholders to progress national activity on waste minimisation and management policy.	Ongoing	Rates (existing)	7	7.1
t. Continue to actively address illegal dumping activity including where possible identifying perpetrators and if required undertaking clean-up activity.	Ongoing	Rates (existing)	4	4.1

<sup>25</sup> The bylaw could limit size of new containers (120-140 L is common for Council provided collections or where limits have been introduced elsewhere). For existing containers collection frequency could be limited to provide similar weekly capacity e.g. fortnightly collection of 240L wheelie bin.

Table 18: Timeline

2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Infrastructure					
Services					
Existing					
Refuse Collection	Refuse Collection	Refuse Collection	Refuse Collection	Refuse Collection	Refuse Collection
Kerbside Recycling	Kerbside Recycling	Kerbside Recycling	Kerbside Recycling	Kerbside Recycling	Kerbside Recycling
Transfer Stations	Transfer Stations	Transfer Stations	Transfer Stations	Transfer Stations	Transfer Stations
<i>Potential new services:</i>					
			<i>Refuse bin RFID/User pays</i>		
			<i>Westland District glass recycling</i>		
				<i>Tender and appoint organic waste and/or Bulky waste service</i>	<i>Organic and/or Bulky waste service</i>
<i>Buller recycle/waste stations at North Beach and Punekaiki</i>		<i>Northern and central Buller, Grey and Westland Districts recycle/waste stations</i>			
	<i>Processing of shredded green waste and sludge in Greymouth, Hokitika (and potentially Reefton)</i>				
	<i>Collaborate with product owners on problem products e.g. e-waste</i>				<i>Tender/Appoint dry waste sorting (new or varied transfer station contracts)</i>
Investigations					
<i>Complete investigation on MRF consolidation</i>	<i>Complete study on garden waste and bulky waste collection.</i>		<i>LTP Proposal for bulky and/or organic waste</i>		
<i>Complete investigations into two stream collection options.</i>	<i>Complete study on dry waste sorting</i>		<i>LTP proposal on dry waste sorting</i>		

2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Education / Information					
Green waste and food waste services	Green waste and food waste services	Green waste and food waste services	Green waste and food waste services	Green waste and food waste services	Green waste and food waste services
Council services	Council services	Council services	Council services	Council services	Council services
For holidaymakers	For holidaymakers	For holidaymakers	For holidaymakers	For holidaymakers	For holidaymakers
Schools	Schools	Schools	Schools	Schools	Schools
Illegal dumping	Illegal dumping	Illegal dumping	Illegal dumping	Illegal dumping	Illegal dumping
Policy					
Develop grant funding criteria	Grant funding round	Grant funding round	Grant funding round	Grant funding round	Grant funding round
By-law amendment	By-law implementation	By-law implementation	By-law implementation	By-law implementation	By-law implementation
Report on progress in 2017/18 Annual Report.	Report on progress in 2018/19 Annual Report.	Report on progress in 2019/20 Annual Report.	Report on progress in 2020/21 Annual Report.	Report on progress in 2021/22 Annual Report.	Report on progress in 2022/23 Annual Report.
Collaborate with others national activity and policy.	Collaborate with others national activity and policy.	Collaborate with others national activity and policy.	Collaborate with others national activity and policy.	Collaborate with others national activity and policy.	Collaborate with others national activity and policy.
Illegal dumping investigation and enforcement activity	Illegal dumping investigation and enforcement activity	Illegal dumping investigation and enforcement activity	Illegal dumping investigation and enforcement activity	Illegal dumping investigation and enforcement activity	Illegal dumping investigation and enforcement activity
Indicative Budget <sup>26</sup>					
3.4M	3.7M	3.7M	4.6M	4.6M	5.6M
Status quo	Add Buller recycle/waste stations, investigations	Add green waste + sewage solids processing	Add RFiD refuse bins and Westland District glass collection		Add organic and bulky waste collection.

<sup>26</sup> Based on current budgets across 3 Councils and estimated cost of proposed initiatives. Further detail of the basis for cost estimates is contained in the option evaluation sections in the Regional Waste Assessment.

## 14 Applicability

This report has been prepared for the exclusive use of our clients Buller, Grey and Westland District Councils, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

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Appendix A: West Coast Regional Waste  
Assessment (2018)

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