WasteNot Consulting

Composition of Kerbside Rubbish in Timaru District

Prepared for
Timaru District Council
December 2022

Document quality control

Date	Status	Written by	Approved by	Distributed to
20 Mar 2023	Final 1.0	NB - ACL	BM - WNCL	KE - ESL CI - TDC
26 Feb 2023	Draft 0.1	NB - ACL	BM - WNCL	KE - ESL

Contact details

Timaru District Council
Catherine Irvine
Waste Manager

EnviroWaste Services Ltd
Kevin Edgar
Regional Manager
South Island Collections

Waste Not Consulting Ltd
Bruce Middleton
Director
Ph: (09) 360 5188
Email: bruce@wastenot.co.nz

Ahikā Consulting Ltd
Niki Bould
Senior Consultant
Ph: 021 254 8928
Email: nikibould@ahika.co.nz
Website: www.ahika.co.nz

Contents

1 Introduction

Territorial authorities have statutory responsibility, specified in the Waste Minimisation Act 2008, for promoting effective and efficient waste management and waste reduction practices within their district. In line with its responsibilities under the legislation, Timaru District Council (Council) provides urban and rural properties with kerbside rubbish, organics, and recycling collection services.

Following a joint procurement with Mackenzie and Waimate District Councils, in October 2020 Council awarded a new contract for the kerbside services to EnviroWaste Services Ltd (ESL). The new contract came into effect in October 2021. The new contract provides for separate kerbside collection of rubbish, recycling, glass, and organics.

In December 2022, as part of its contract with the three councils, ESL contracted Waste Not to provide an assessment of rubbish collection component of the new four-bin service. Waste Not subcontracted the field work (i.e. the sample collection and sorting) to Ahikā Consulting Ltd.

The audit described in this document was based on the methodology outlined in the Ministry for the Environment's *Solid Waste Analysis Protocol 2002* (SWAP). The audit involved collecting rubbish samples from the kerbside over a three-day period, from three areas in the district served by the Council collection and sorting these samples into 26 categories at the Twizel Resource Recovery Park.

1.1 Waste management services in Timaru District

Council provides urban and rural properties with kerbside rubbish, food organic - garden organic (FOGO), and recycling collection services, based on four mobile garbage bins (MGB). The system consists of a 140-litre red-lidded residual rubbish MGB, a 240-litre yellow-lidded recycling MGB, a 240-litre green-lidded organics MGB, and an 80-litre blue glass recycling MGB. The FOGO MGB is emptied weekly, while the rubbish and recycling MGBs are collected fortnightly.

Council-owned resource recovery parks are Redruth Resource Recovery Park (23 Shaw Street, Timaru), Temuka Transfer Station (45 Wilmshurst Road, Temuka), Pleasant Point Transfer Station (23 Beck Road, Pleasant Point) and Geraldine Transfer Station (128 Te Moana Road, Geraldine). The facilities accept residual waste, greenwaste, and recyclable items, including scrap metals, e-waste, and domestic quantities of oil, paint and herbicides.

Commercial waste and recycling collections are offered throughout the District by ESL and Waste Management NZ Ltd.

Through the joint contract, ESL also provides similar services to Timaru's neighbouring districts of Mackenzie and Waimate.

2 Methodology

The audit in Timaru District was designed to determine the composition and average weight per mobile garbage bin (MGB) of kerbside rubbish in north and south Timaru.

The audit methodology was based on Procedure One of the Ministry for the Environment's *Solid Waste Analysis Protocol* 2002 (SWAP). Conducted over a three-day period, the audit included the contents of 150 Council 140-litre MGBs from residential properties.

Photos from the audit are presented in section 5.

2.1 Classification of kerbside rubbish

Classification of the kerbside rubbish was into the 12 primary classifications identified in the SWAP and 26 secondary classifications. The classifications were chosen to identify different types of recyclable and compostable materials present in the kerbside rubbish and accepted in the new four-bin system. Council website information on materials accepted into each of the bins is shown in Appendix 1. The categories used for the audit are detailed in Appendix 2.

2.2 Sample size

Conducted over a three-day period, the audit included the contents of 150 Council 140-litre MGBs from residential properties. The audit sample included.

- 20 x MGBs from Temuka (Timaru North)
- 30 x MGBs from Winchester (Temuka and Winchester sorted together) (Timaru North)
- 50 x MGBs from Geraldine (Timaru North)
- 50 MGBs from Watlington (Timaru South).

2.3 Sampling strategy

The audit took place in December 2022. In seasonal waste flow terms, this is towards the end of the spring 'shoulder season', being between the low waste flow winter period and the peak waste flows of summer. The audit was scheduled so there were no influences on waste flows from either school holidays or long weekends.

The composition and quantity of kerbside rubbish varies according to a number of factors, including the socio-economic status and ethnicity of the householder, the nature of the housing stock, and the range of disposal and recycling services available. To obtain a representative sample of the kerbside rubbish collections, the sample was collected from Timaru north and south areas. The sampling team was instructed to select MGBs at random and include a range of housing and property types.

The streets from which the sample was collected are listed in section 3.1.

2.4 Audit execution

The sample collection was undertaken over three mornings by an ESL staff member and a runner, using a high sided trailer. The contents of each MGB included in the sample were emptied into a large plastic bag and transported to Twizel Resource Recovery Park each day for sorting the next day.

A team comprising the Ahikā supervisor and three contract staff was used for the sorting process. All members of the team received the requisite training on the requirements of the audit process and on health and safety procedures. All personal protective equipment was provided to contract staff.

The collected bags were sorted in sampling units of five bags. Each of the five bags in the unit was weighed in and the weight was recorded. Each of the five bags was opened, the contents spread on a sorting table, and the individual items sorted into the appropriate categories. When all of the items in a sample unit were sorted, the individual classifications were weighed out and the material disposed of. These sorting techniques are consistent with Section 4.5 of the SWAP.

2.5 Note on presentation of data in tables and figures

In the tables and figures in this report, subtotals do not always add to the total due to rounding. This is illustrated in the equations below. In the equation on the left, the subtotals are expressed to three decimal points and add up to the total, as shown. When the three decimal points are rounded to two, one, and no decimal points, the subtotals to not add up to the totals.

1.264	1.26	1.3	1
+ 1.264	+ 1.26	+ 1.3	+ 1
= 2.528	= 2.53	= 2.5	= 3

3 Composition of kerbside rubbish

3.1 Sampling schedule

The sample of Timaru District kerbside rubbish comprised the contents of 150 MGBs. The sample was collected on the three collection days between 14 December and 19 December from the streets shown in Table 3.1. The samples were sorted the day after collection.

Table 3.1 - Streets sampled for Timaru District kerbside rubbish audit

Collection date	Street	Area	Collection date	Street	Area
14 Dec.	Ronald Street	Winchester	16 Dec.	Flatman Crescent	Geraldine
14 Dec.	Lennox Street	Winchester	16 Dec.	George Street	Geraldine
14 Dec.	North Street	Winchester	16 Dec.	Taylor Street	Geraldine
14 Dec.	Erskine Street	Winchester	16 Dec.	Maling Street	Geraldine
14 Dec.	Vernon Street	Winchester	16 Dec.	Connolly Street	Geraldine
14 Dec.	Avenel Street	Winchester	16 Dec.	Mackenzie Street	Geraldine
14 Dec.	Maddren St	Winchester	16 Dec.	Williamson Place	Geraldine
14 Dec.	Cass Street	Temuka	**Collection date**	**Street**	**Area**
14 Dec.	Allnatt Street	Temuka	19 Dec.	Newton Street	Watlington
14 Dec.	Godley Street	Temuka	19 Dec.	Bradley Street	Watlington
14 Dec.	Hally Terrace	Temuka	19 Dec.	Mowbray Street	Watlington
			19 Dec.	Melton Street	Watlington
			19 Dec.	Market Street	Watlington
			19 Dec.	Harborough Street	Watlington

3.2 Primary composition of Timaru District kerbside rubbish

The primary composition of the Timaru District kerbside rubbish is presented in Table 3.2 and Figure 3.1, in terms of percentages and average weight per MGB. ESL data for the period 1 June - 31 December 2022 showed an average of 113.5 tonnes per week were collected. This tonnage figure is applied to composition data throughout this report.

The composition of kerbside rubbish has been calculated from analysis of the sort-and-weigh audit undertaken on three days from 14 - 19 December 2022. The average MGB weight of 11.79 kg is based on collection data provided by ESL for the period 1 June - 31 December 2022. The average MGB weight from analysis of the audit data was 8.45 kg. This weight was considered anomalous and was not used in the further calculations.

Secondary composition is presented in Table 3.3 in terms of percentages, weight per MGB, and tonnes per week.

Table 3.2 - Primary composition of Timaru District kerbside rubbish

Primary composition - Kerbside rubbish - December 2022	% of total	Weight per average MGB	Tonnes/week
Paper	10.1%	1.19 kg	11.5 T/week
Plastics	16.9%	1.99 kg	19.2 T/week
Organics	36.3%	4.28 kg	41.2 T/week
Ferrous metals	3.1%	0.36 kg	3.5 T/week
Non-ferrous metals	1.3%	0.15 kg	1.5 T/week
Glass	2.3%	0.27 kg	2.6 T/week
Textiles	6.6%	0.77 kg	7.4 T/week
Sanitary paper (1)	8.9%	1.05 kg	10.1 T/week
Rubble	4.7%	0.56 kg	5.3 T/week
Timber	4.5%	0.53 kg	5.1 T/week
Rubber	1.4%	0.16 kg	1.6 T/week
Potentially hazardous	3.9%	0.46 kg	4.5 T/week
TOTAL	**100%**	**11.79 kg**	**113.5 T/week**

(1) - 'Sanitary paper' excludes sanitary products classified as 'Compostable - other'

Organic material was the largest single component of the kerbside rubbish at 36.3% of the total weight. Plastics was second largest (16.9%) and paper the third (10.1%). Sanitary paper represented the fourth largest category. As many types of sanitary paper (such as paper towels and tissues) were included under Organics (compostable - other classification), sanitary paper was predominantly disposable nappies.

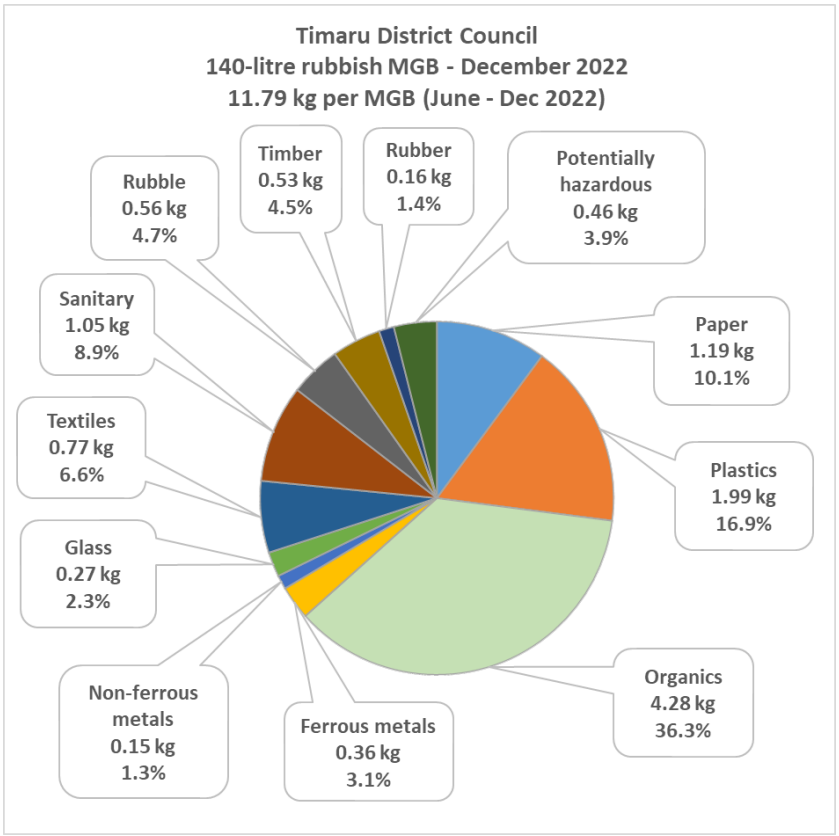

Figure 3.1 – Primary composition of Timaru District kerbside rubbish

3.3 Secondary composition of Timaru District kerbside rubbish

Table 3.3 - Secondary composition of Timaru District kerbside rubbish

Timaru District kerbside rubbish - December 2022		% of total weight	Kg per MGB	Tonnes/ week
Paper	Recyclable	6.0%	0.71 kg	6.8 T/week
	Tetra Pak	0.3%	0.04 kg	0.4 T/week
	Non-recyclable	3.8%	0.45 kg	4.3 T/week
	Subtotal	**10.1%**	**1.19 kg**	**11.5 T/week**
Plastics	# 1,2,5 bottles & containers	3.1%	0.36 kg	3.5 T/week
	#3,4,6,7 bottles & containers	0.2%	0.03 kg	0.3 T/week
	Plastic bags/film	9.2%	1.09 kg	10.4 T/week
	Other non-recyclable	4.4%	0.52 kg	5.0 T/week
	Subtotal	**16.9%**	**1.99 kg**	**19.2 T/week**
Organics	Food waste	24.0%	2.83 kg	27.2 T/week
	Greenwaste	4.4%	0.52 kg	5.0 T/week
	Compostable	3.6%	0.42 kg	4.1 T/week
	Other organic	4.4%	0.52 kg	5.0 T/week
	Subtotal	**36.3%**	**4.28 kg**	**41.2 T/week**
Ferrous metals	Steel cans	1.1%	0.13 kg	1.2 T/week
	Other ferrous	2.0%	0.23 kg	2.3 T/week
	Subtotal	**3.1%**	**0.36 kg**	**3.5 T/week**
Non ferrous metals	Aluminium cans	0.6%	0.07 kg	0.7 T/week
	Other non-ferrous	0.7%	0.08 kg	0.7 T/week
	Subtotal	**1.3%**	**0.15 kg**	**1.5 T/week**
Glass	Glass bottles/jars	1.4%	0.17 kg	1.6 T/week
	Other glass	0.9%	0.10 kg	1.0 T/week
	Subtotal	**2.3%**	**0.27 kg**	**2.6 T/week**
Textiles	Clothing & textile	3.8%	0.45 kg	4.3 T/week
	Multimaterial/other	2.8%	0.33 kg	3.2 T/week
	Subtotal	**6.6%**	**0.77 kg**	**7.4 T/week**
Sanitary		**8.9%**	**1.05 kg**	**10.1 T/week**
Rubble		**4.7%**	**0.56 kg**	**5.3 T/week**
Timber		**4.5%**	**0.53 kg**	**5.1 T/week**
Rubber		**1.4%**	**0.16 kg**	**1.6 T/week**
Potentially hazardous	E-waste	2.1%	0.25 kg	2.4 T/week
	Household	0.6%	0.07 kg	0.7 T/week
	Other	1.2%	0.14 kg	1.4 T/week
	Subtotal	**3.9%**	**0.46 kg**	**4.5 T/week**
TOTAL		**100.0%**	**11.79 kg**	**113.5 T/week**

4 Discussion and analysis

4.1 Distribution of MGB weights

As discussed in section 3.2, the average weight per MGB collected by ESL in Timaru for the audit was 8.45 kg. This weight was considered anomalous, and an average weight of 11.79 kg per MGB from data provided by ESL for the period 1 June - 31 December 2022 has been used throughout this report. The distribution of weights of the 150 MGBs collected for the audit is shown in Figure 4.1 below.

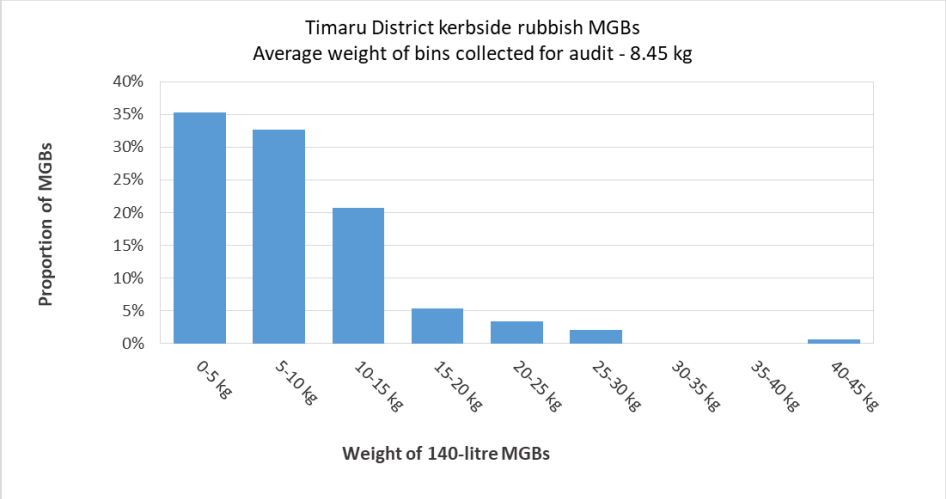

Figure 4.1 - Distribution of weights of Timaru District kerbside MGBs

The data shows that 35% of the MGBs weighed for the audit weighed under 5 kg and 68% weighed under 10 kg. The heaviest MGB collected weighed 43.4 kg.

4.2 Count of Tetra Pak containers

During the audit, Tetra Pak containers were sorted and weight separately from other non-recyclable paper and then counted. A total of 135 containers were identified in the 150 MGBs sorted. The size of containers varied from 250 ml liquid breakfast to 1-litre VHT milk containers. Analysis of the data on Tetra Paks is shown in Table 4.1.

Table 4.1 - Count and average weight of Tetra Pak containers

Tetra Pak containers in Timaru District kerbside rubbish - Dec-22	
Average # per MGB	0.90
Average wt. per Tetra Pak	0.031 kg
% of kerbside rubbish	0.33%
Average T/week	0.37 T/week
Average # per week	12,082

On average, each Tetra Pak container weighed 0.031 kg, or 32 containers per kg. Each week, approximately 12,082 Tetra Pak containers are disposed of in kerbside rubbish.

4.3 Diversion potential of Timaru District kerbside rubbish

Common means provided by councils to divert kerbside rubbish from landfill disposal are by offering systems for the collection or diversion of recyclable and compostable materials. Council provides a kerbside recycling service to households in the district for glass, plastic containers, cans, and some types of paper. Since 2006, a kerbside FOGO collection, collecting food waste and greenwaste has been in operation. Residents are also able to dispose of some types of organic material on their own properties by worm farming food waste or composting food waste and/or greenwaste.

Drop-off points for recyclables and greenwaste are available at all of the resource recovery parks in the district. All material delivered to the recovery parks are currently charged for on either a weight or volume basis.

Table 4.2 shows the proportions of Council kerbside rubbish that could have been diverted using these methods, in terms of percentages, weight per MGB, and tonnes per week.

Table 4.2 - Diversion potential of Timaru District kerbside rubbish

Diversion potential of kerbside rubbish December 2020	% of total weight	Kg per MGB	Tonnes per week
Recyclable materials			
Paper - Recyclable	6.0%	0.71 kg	7 T/week
Plastic - # 1,2,5 bottles & containers	3.1%	0.36 kg	3 T/week
Steel cans	1.1%	0.13 kg	1 T/week
Aluminium cans	0.6%	0.07 kg	1 T/week
Glass bottles/jars	1.4%	0.17 kg	2 T/week
Subtotal	**12.2%**	**1.44 kg**	**14 T/week**
Compostable materials			
Food waste	24.0%	2.83 kg	27 T/week
Greenwaste	4.4%	0.52 kg	5 T/week
Compostable (other)	3.6%	0.42 kg	4 T/week
Subtotal	**31.9%**	**3.77 kg**	**36 T/week**
TOTAL - POTENTIALLY DIVERTABLE	**44.2%**	**5.21 kg**	**50 T/week**

Approximately 12.2% of the materials in kerbside rubbish could have been recycled through the existing kerbside recycling, which was 1.44 kg on average per MGB (between June and December 2022) or 14 tonnes per week.

Compostable materials, those accepted by the FOGO collection, comprised 31.9% of all combined kerbside rubbish. The quantity of greenwaste was significantly lower than that of food waste. The average MGB contained 0.52 kg of greenwaste compared to 2.83 kg of food waste.

Overall, 44.2% of kerbside rubbish, which includes both recyclable and compostable materials, could have been diverted from landfill disposal. This equates to 50 tonnes per week. Other materials, such as clothing and other metals, are also recyclable but have not been included in these calculations.

4.4 Per capita disposal of kerbside rubbish

The per capita disposal of kerbside rubbish for residents of Timaru District is calculated in Table 4.3. The annual tonnage has been annualised from tonnages for 1 June - 31 December 2022, so should be considered to be of an indicative nature only.

Table 4.3 - Per capita disposal of domestic kerbside rubbish

Usually resident population Timaru District Stats NZ, 2022	**48,500**
Average weekly tonnage of kerbside rubbish	113.5 tonnes/week
Annualised tonnage of kerbside rubbish	**5,901 T /annum**
Per capita disposal of kerbside refuse	**0.122 T/capita/annum**

The estimated 5,901 tonnes of kerbside rubbish collected in 2022 in Timaru District equated to 122 kg per capita per annum. The figure of 122 kg/capita/annum is compared to the disposal rates from other areas previously surveyed by Waste Not Consulting in Table 4.4.

Table 4.4 - Comparison of per capita disposal of kerbside rubbish

Kerbside rubbish - Per capita disposal rate compared to other areas	Kg per capita per annum	Kerbside rubbish collection services
Mackenzie District 2022	108	Rates-funded fortnightly 140-litre MGBs (with weekly FOGO collection)
Christchurch City 2011	110	Rates-funded fortnightly 140-litre MGBs (with weekly FOGO collection)
Timaru District 2022	122	Rates-funded fortnightly 140-litre MGBs (with weekly FOGO collection)
Gisborne District 2017	122	Rates-funded rubbish bag stickers
Waimate District 2022[1]	149	Rates-funded fortnightly 140-litre MGBs (with weekly FOGO collection)
Whangarei District 2017	153	User-pays rubbish bags + private MGBs
Auckland Council 2016	156	User-pays rubbish bags + rates-funded MGBs + private MGBs
Bay of Plenty Region 2020	160	Various
Matamata-Piako District 2020	183	User-pays rubbish bags + private MGBs
Dunedin City 2018	187	User-pays rubbish bags + private MGBs
Tauranga and WBOP District 2019	192	User-pays rubbish bags + private MGBs
Hamilton City 2017	197	Rates-funded bags (2 per h/h max)
Hastings District/Napier City 2022	197	Rates-funded 120-litre MGBs + private MGBs
Clutha District 2022	209	Fortnightly rates-funded 240-litre MGBs
Palmerston North 2022	215	User-pays rubbish bags + private MGBs

[1] Sunshine Yates Consulting (2022) *Audit of Kerbside Rubbish and Recycling in Waimate District,* prepared for Waimate District Council

The per capita disposal rate of kerbside rubbish for Timaru District in 2022 is relatively low compared to most of the other areas shown. In general, the areas with a higher disposal rate do not offer a kerbside organics collection and/or private waste collectors control a significant share of the kerbside rubbish market. The higher disposal rates are associated, in particular, with a relatively high usage of private waste collectors' 240-litre MGBs.

4.5 Comparison with diversion potential in other areas

Table 4.5 compares kerbside rubbish diversion potential of Timaru District kerbside rubbish MGBs with those of Waimate and Mackenzie Districts. Note that the Waimate District audit did not use a Compostable - other secondary classification for the sorting.

Table 4.5 - Comparison of diversion potential to other areas

Comparison to other areas - Weight per MGB	Timaru District	Waimate District	Mackenzie District
Date of audit	December 2022	September 2022	December 2022
Kerbside services audited	Rates-funded - Fortnightly 140-litre MGB		
Kerbside recycling services available	Rates-funded Fortnightly - 240-litre mixed recycling bin + weekly glass 80-litre MGB	Rates-funded Fortnightly - 240-litre mixed recycling bin + weekly glass 45-litre crate	Rates-funded Fortnightly - 240-litre mixed recycling bin + weekly glass 45-litre crate
Kerbside organic collection available	Rates-funded Weekly 240-litre	Rates-funded Weekly 240-litre	Rates-funded Weekly 140-litre
Average household rubbish bin weight	**11.79 kg**	**10.84 kg**	**10.99 kg**
Recyclable materials			
Recyclable paper	0.71 kg	0.58 kg	0.43 kg
Recyclable plastic	0.36 kg	0.22 kg	0.28 kg
Steel cans	0.13 kg	0.06 kg	0.09 kg
Aluminium cans	0.07 kg	0.04 kg	0.07 kg
Bottles/jars	0.17 kg	0.19 kg	0.19 kg
Subtotal	**1.44 kg**	**1.09 kg**	**1.05 kg**
Compostable materials			
Food waste	2.83 kg	2.34 kg	3.50 kg
Greenwaste	0.52 kg	0.53 kg	0.68 kg
Compostable (other)	0.42 kg	N/A	0.67 kg
Subtotal	**3.77 kg**	**2.88 kg**	**4.85 kg**
Total divertable	**5.21 kg**	**3.96 kg**	**5.90 kg**
% recyclable	12.2%	10.0%	9.6%
% compostable	31.9%	26.5%	44.2%
TOTAL -	**44.2%**	**36.6%**	**53.7%**

Mackenzie and Waimate Districts had similar quantities of recyclable materials per MGB, while Timaru District MGBs contained more recyclable materials. Mackenzie District MGBs contained substantially more food waste than the other districts.

5 Photos from audit

Audit set-up at Twizel Resource Recovery Park

Timaru waste stored overnight in skip

Sorting team at the sorting table

Appendix 1 - Council kerbside disposal instructions

Glass Bin	Recycling	Organics	Rubbish Bin	Resource Recovery Park
	Aerosol cans			
	Aluminium foil (Try the scrunch test: if you scrunch the foil in your hand and it stays scrunched up, it is aluminium)			
			Ashes (cooled for 7 days)	
				Batteries – all
			Biodegradable plastic	
	Books			
		Bread, pastries and flour		
			Bubble wrap	
	Cans (clean)			
				Car parts and scrap metal
	Cardboard boxes (clean and flattened)			
			Cartons – milk and juice	
			Cat litter	
				CDs or DVDs
				Cellphones and smartphones
	Cereal boxes (clean and flattened)			
			Cereal liners	
		Cheese and butter		
				Child car seats
			Clothing, shoes and textiles. Drop off to a clothing bin or charity if it's reusable	
		Coffee grinds and tea bags		
			Coffee pods and sachets	
				Computers and electronic devices
			Crockery, ceramics, porcelain (broken)	
			Disposable nappies	
		Dog poo (wrapped in paper)		
			Dog poo (bagged)	
			Drinking glasses (broken)	
				Meat trays – polystyrene
	Egg cartons and trays (clean, dry)			
				Electrical appliances
			Empty engine oil containers	
			Fast food packaging/containers (except cardboard and paper)	
		Food scraps, fruit and vegetables (including pips)		
	Food tins (rinsed)			
				Furniture
		Garden waste, most cut flowers, pruned branches, leaves and grass clippings (unsprayed)		
			Garden – Bamboo, cabbage tree leaves, rhubarb leaves, flax and palm leaves	
			Garden pots	
		Glass bottles (rinsed, no lids)		
			Glass cookware/ovenware (broken)	
		Glass jars (rinsed, no lids)		
			Hoses and plastic tubing	
				Household appliances
		Human and animal hair		
		Junk mail		
		Leftover meat, fish and bones		
			Lids – plastic and metal bottle/ container lids	
				Light bulbs – Fluorescent
			Light bulbs – Tungsten and LED	
		Magazines		
	Meat trays with a number 1 plastic triangle (rinsed)			
	Milk bottles with a number 2 plastic triangle (no lids)			
			Mirrors (if broken)	
	Newspaper and office paper			
				Oils, e.g. mineral, used engine, gearbox and transmission oil
				Paint and chemicals
		Fish and chip paper, paper towels and serviettes (remove any plastic)		
			Plastic bottles/containers – grades 3, 4, 6, 7 or no grade	
	Plastic bottles/containers numbered 1, 2 or 5 (clean, no lids)			
			Plastic film or wrap – soft plastic	
			Plastic ties and strapping	
				Polystyrene, including packaging polystyrene
			Sanitary items	
			Shells and shellfish	
		Shredded paper		
			Smoke alarms (with batteries removed)	
			String, twine, rope	
			Takeaway cups	
			Toys	
			Window glass (broken)	
			Wood – treated, stained, oiled or painted	

Appendix 2 - Sorting classifications

Primary category	Secondary category	Definition
Paper	Recyclable paper	Paper bags, magazines, cardboard boxes (clean and flattened), wrapping paper, books, egg cartons, junk mail, newspaper, office paper, etc.,
	Tetra Pak containers	Aseptic milk, juice, and other beverage containers
	Non-recyclable paper	Non-recyclable paper packaging (e.g. food contaminated), photographic paper, playing cards, laminated paper, etc.
Plastics	#1,2, 5 bottles & containers	Drink and janitorial bottles, ice cream containers, milk and cream bottles, meat trays and other containers with a # 1, 2 or 5 symbol (clean, no lids)
	#3,4,6 7 bottles & containers	All other plastic numbered 3, 4, 6 and 7 including expanded polystyrene meat trays, multi-material plastic containers, paint, engine oil and chemical containers
	Plastic bags/film	All plastic bags, film, and other soft plastics
	Other non-recyclable	All other non-packaging materials made of plastic, such as biscuit and sushi trays, lids, pot plant containers, un-numbered bottles and containers
Organics	Food waste	All food waste
	Greenwaste	All organic garden waste
	Compostable - Other	Other materials suitable for the organics collection, such as animal faeces wrapped in paper or in approved biobags, human and animal hair, shredded paper, paper towels, tissues, serviettes, fish and chip paper, pizzas boxes.
	Other organic	All other primarily organic items, dead animals
Ferrous metals	Steel cans	All steel cans, including aerosol cans
	Multimaterial/ other	All other items made primarily of ferrous metal
Non-ferrous metals	Aluminium cans	All aluminium cans and trays and aluminium foil, including aerosol cans
	Multimaterial/ other	All other items made primarily of non-ferrous metal
Glass	Glass bottles/jars	All bottles and jars, emptied with the lids and contents removed
	Multimaterial/ other	All other items made primarily of glass, includes light bulbs, drinking glasses, and window glass
Textiles	Clothing & textile	All items primarily made of a fabric, such as clothes, curtains
	Multimaterial/other	Includes shoes, backpacks, handbags, rugs
Sanitary paper		Includes disposable nappies, other toilet items
Rubble, concrete		All concrete, rubble and soil
Timber		All items made primarily of timber
Rubber		All items made primarily of rubber (e.g. kitchen gloves)
Potentially hazardous	Household hazardous	Batteries, containers of medicines and cosmetics, cleaning agents, and smoke detectors
	Hazardous other	Potentially hazardous items not associated with domestic activity, such as used oil and garden chemicals.
	E-waste	Electrical and electronic items as per Annex III and Annex IV of European Directive 2012/19/EU