From:	Official Information
To:	[redacted]
Cc:	Official Information
Subject:	Final response - LGOIMA 389241 - [redacted] - Solid waste Management
Date:	Wednesday, 20 March 2024 4:30:10 pm
Attachments:	image005.png image006.png image007.jpg image008.jpg Final 1.1 Hamilton SWAP 2022.pdf

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Kia ora,

We refer to your information request below. Hamilton City Council provides the following response.

Your request:

I am a student conducting some research for my Solid Waste Management class, and I wonder if you might be able to answer some questions I have about Hamilton's waste statistics:The total amount of residential sector garbage produced?

1. *Amount of waste produced, per capita, per year?*
2. *The portion of Hamilton's waste which gets recycled?*
3. *The ultimate disposal location for Hamilton's residential waste?*

Our response:

1. ***The total amount of residential sector garbage produced.***

   Please refer to table 5.2 on page 23 of the attached Composition of Kerbside Rubbish and Composition of Waste to Lincoln St Resource Recovery Centre.

2. ***Amount of waste produced, per capita, per year.***

   Please refer to table 5.3 on page 24 of the attached Composition of Kerbside Rubbish and Composition of Waste to Lincoln St Resource Recovery Centre.

3. ***The portion of Hamilton's waste which gets recycled.***

   Hamilton City Council undertakes a kerbside collection of:

   120L Red lidded general waste bin collected fortnightly.
   240L Yellow lidded mixed recycling bin collected fortnightly.
   44L Glass bin collected fortnightly.
   23L Food Scrap bin collected weekly.

   Waste is sent to landfill while mixed recycling, glass and food scraps are either recycled or in the case of food scraps used to produce compost.

   In the last calendar year (1 January 2023 to 31 December 2023) the below tonnes were produced for each collection stream:

In the last calendar year 47.78% of Hamilton's kerbside collection was diverted from landfill.

4. ***The ultimate disposal location for Hamilton's residential waste.***

   Hamilton City's residential kerbside waste is sent to EnviroNZ Hampton Downs landfill.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Ngaa mihi
Keeley Faulkner
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Email: officialinformation@hcc.govt.nz

Hamilton City Council | **Private Bag 3010** | **Hamilton 3240** | **www.hamilton.govt.nz**

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-----Original Message-----
From: [redacted]
Sent: Thursday, 14 March 2024 7:02:16 am
To: info@hcc.govt.nz
Subject: Hamilton Waste Statistics Questions

Hello,

I am a student conducting some research for my Solid Waste Management class, and I wonder if you might be able to answer some

questions I have about Hamilton's waste statistics:

4. The total amount of residential sector garbage produced?
5. Amount of waste produced, per capita, per year?
6. The portion of Hamilton's waste which gets recycled?
7. The ultimate disposal location for Hamilton's residential waste?

Thank you for any help you can provide,

[redacted]

WasteNot Consulting

Composition of Kerbside Rubbish and Composition of Waste to Lincoln St Resource Recovery Centre

Prepared for
Hamilton City Council
November 2022

Document quality control

Date	Status	Written by	Distributed to
2 June 2023	Final 1.1	BM - WNCL	KQ - HCC
10 March 2023	Final 1.0	BM - WNCL	KQ - HCC
9 March 2023	Draft 0.2	BM - WNCL	KQ - HCC
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Contents

1 Introduction

This document presents the results of a two four-day visual surveys of the composition and activity sources of waste disposed of at Lincoln St Resource Recovery Centre and two three-day sort-and-weigh audits of the composition of Hamilton City Council's kerbside rubbish collection. The surveys and audits, commissioned by Hamilton City Council, were conducted in May, June, October, and November 2022.

The Waste Management and Minimisation Plan (WMMP) is a statutory document required of territorial authorities by the Waste Minimisation Act 2008. In accordance with the Act, in 2018 Hamilton City Council (Council) adopted its second WMMP - *Hamilton City Council Waste Management and Minimisation plan 2018-2024*. Two of the activities in the WMMP are to:

- *Ensure access to information on waste from both the Council and private waste collectors and facilities. Capture data on quantities, composition, origin and destination and the use of the service, in line with the National Waste Data Framework*
- *Ensure a household rubbish and recycling composition analysis is undertaken at least every three years for both the Council and private kerbside services.*

Waste Not Consulting has previously assisted Council by collecting the data required for informed decision-making. In 2013 and 2017, Waste Not undertook audits of the composition of Council's kerbside rubbish bag collection and conducted visual surveys of waste being disposed of at the Council-owned Lincoln Street Resource Recovery Centre (RRC) and EnviroWaste Services Ltd's (ESL) Sunshine Avenue transfer station. When combined, the data on waste from these two facilities provided a reliable representation of all waste from Hamilton that was disposed to Class 1 landfills.

Since the 2017 project, Council has introduced new kerbside rubbish collection services for residents. The weekly collection of rates-funded rubbish bags (maximum two per household) has been replaced by a fortnightly collection of 120-litre wheelie bins. A weekly food scraps collection has also been introduced. In addition, in 2021 a third transfer station was opened, in Frankton, by Waste Management NZ Ltd (WNMZL).

In 2021, a programme of visual surveys at Lincoln St RRC and sort-and-weigh audits of Council's kerbside rubbish collection was started, but then interrupted by a Covid lockdown. Only a single survey and audit were undertaken.

Only the Council's Lincoln St RRC was surveyed for the 2022 research. It is noted that, without the inclusion of the ESL and WMNZL transfer stations, the visual survey does not provide a complete picture of waste disposed of to landfill from Hamilton, as the 2013 and 2017 surveys were able to provide.

This document is structured as follows:

- Section 1.1 describes the waste services currently available in Hamilton
- Section 2 describes the methodologies used for the visual surveys and kerbside wheelie bin sort-and-weigh audits
- Section 3 presents the results of the sort-and-weigh audits of Council's kerbside rubbish wheelie bin collection

- Section 4 presents the results of the visual surveys of the composition of residual waste disposed of at Lincoln St RRC
- Section 5 compares the results of the 2022 analyses with the 2013 and 2017 analyses and compares the Hamilton results with those of other council areas.

1.1 Waste management services in Hamilton

1.1.1 Overview

There are no landfills in Hamilton that accept municipal solid waste. Residual waste from the city is consolidated at the Council-owned Lincoln St Resource Recovery Centre (RRC), the ESL-owned Sunshine Avenue RTS, or the Waste Management Resource Recovery Park, owned by WMNZL and opened in March 2021 on Wickham St, Frankton.

Waste from Lincoln St RRC and waste from Sunshine Avenue RTS is bulk-hauled to North Waikato Regional Landfill (Hampton Downs landfill). A small amount of waste is transported directly from Hamilton to Hampton Downs landfill. Waste from the Waste Management Resource Recovery Centre is assumed to be transported to Tirohia landfill, in Hauraki District.

Hamilton City Council owns the Lincoln St RRC and the site is leased to and operated by ESL.

Hamilton is, to a relatively high degree, a self-contained waste catchment. That is, a high proportion of the waste that is generated within the city is disposed of within the city at one of the three transfer stations. A small amount of the waste disposed of at Sunshine Ave RTS originates in Waipa District. Other waste from outside the city may be disposed of at the transfer stations, but no quantitative data is available.

1.1.2 Waste services for the residential sector

Through its contracted service provider, ESL, Hamilton City Council offers a weekly collection of food scraps and fortnightly collections of rubbish and recyclables to all properties within the city boundaries. The Council collection is disposed of primarily at ESL's Sunshine Ave transfer station. Occasionally, loads of Council kerbside rubbish are disposed of at Lincoln St RRC.

The fortnightly kerbside rubbish collection is based on every residential property being provided with a 120-litre wheelie bin. The weekly food scraps collection uses a 23-litre bin.

The fortnightly Council kerbside recycling collection is provided to the same properties as are eligible for the kerbside rubbish collection. The collection uses an official Council 45-litre plastic crate for glass and a 240-litre wheelie bin for other recyclables. The kerbside recycling collection accepts:

- plastic containers only with recycling symbols #1 7
- newspaper, cardboard, magazines, junk mail, envelopes, and any other clean paper
- clean steel cans
- aluminium drink cans
- whole glass jars and bottles.

As well as the kerbside services provided by Council, ESL and WMNZL offer user-pays kerbside rubbish collections to urban households, using several sizes of wheelie bins as the waste container. The proportion of households that use private collections is not known, but, based on information provided by Council, it is assumed to be minor.

Several commercial operators offer gantry skip bin services to householders for the occasional disposal of larger quantities of waste. Different sizes of bins are available, with specific bins being available for dense materials such as hard fill and soil. Several greenwaste operators offer user-pays greenwaste collection services.

Householders in Hamilton have access to either Lincoln St RRC or Waste Management Resource Recovery Park for the disposal of waste materials. Both facilities accept residual waste from the general public and have separate drop-off points for a range of recyclable materials. Greenwaste is only accepted separately at the Council-owned Hamilton Organics Centre or the Lincoln St RRC. ESL's Sunshine Ave RTS is closed to the public.

1.1.3 Waste services for the commercial sector

Commercial waste operators provide waste and recycling services for most commercial premises in Hamilton. Depending on the volume of waste generated, wheelie bins, gantry bins, and front-loader bins are available. Some businesses transport their own waste and recycling to one of the transfer stations using their own transport equipment.

A number of general transport operators provide waste disposal services to the construction, demolition, and infrastructure sectors.

1.1.4 Special wastes

Special wastes generated in Hamilton include sewage milliscreenings and biosolids from the Council's wastewater treatment plant and road sweepings. Milliscreenings are disposed of at Hampton Downs landfill. Biosolids are vermicomposted at the Noke plant in Tokoroa. Road sweepings are disposed of at Lincoln St RRC.

1.1.5 Lincoln St Resource Recovery Centre

Lincoln St Resource Recovery Centre (RRC) is situated at 60 Lincoln Street, Frankton. The facility is owned by Hamilton City Council and leased to ESL. Disposal charges at the facility are presented in Appendix 4.

The site is divided into two areas with separate entrances – the waste transfer pit and the recycling drop-off area and re-use shop. All vehicles entering the transfer pit area must stop at the weighbridge kiosk, where the kiosk operator assesses the load and directs the driver to the appropriate drop-off area. All vehicles are weighed over the double weighbridge when entering and then when leaving the facility. Smaller loads are charged at a flat rate, depending on the weight. Loads over 300 kg are charged by weight.

Public vehicle access is limited to one side of the available transfer pit area, with the remainder of the pit area being used for resource recovery. Small vehicles unload in the central area of the pit with trailers and large vehicles using separate areas for unloading. A separate section of the pit is used for greenwaste disposal.

Staff recover significant quantities of materials from the transfer pit, particularly timber and metals. These materials are stored temporarily adjacent to the transfer pit or in hook bins before being aggregated and removed.

Photo 1.1 - Transfer pit at Lincoln St RRC with excavator recovering timber

Photo 1.2 - Wood recovered from transfer pit at Lincoln St RRC

2 Methodologies

2.1 Kerbside rubbish audit

The methodology for the sort-and-weigh audit of kerbside rubbish was based on Procedure One of the Ministry for the Environment's Solid Waste Analysis Protocol 2002 (SWAP). The six days of auditing included the contents of 300 x Council 120-litre rubbish wheelie bins.

Two separate three-day sort-and-weigh audits were undertaken, in June and November 2022.

2.1.1 Sampling strategy

The sort-and-weigh audit of kerbside rubbish included only residential kerbside rubbish from Council's 120-litre wheelie bin collection. Although private waste collectors continue to offer residential kerbside rubbish collection services, privately collected rubbish was not included in the audit as, according to advice from Council, few households have chosen this option.

The sample was collected each morning from the area of Hamilton in which the Council's kerbside collection was operating. This provided a wide geographic spread for the sample and ensured the sample included kerbside rubbish from a range of socio-economic areas and different types of housing.

The collection team collected the sample from a random selection of streets, or clusters of streets, spread throughout the day's sample area.

When a wheelie bin was sampled from a residential property, the contents were tipped into a large plastic bag for transport. The emptied wheelie bins were left on the kerbside with the lid opened and rotated 90 degrees so the collector would know the bin had been emptied.

2.1.2 Audit execution

Each day, the sample of kerbside rubbish was transported to Lincoln Street RRC for sorting. The sorting was undertaken by a team of four. The contents of the 120-litre rubbish wheelie bins were sorted in sampling units comprising the contents of five wheelie bins.

The contents of each of the wheelie bins in each sample unit was weighed in individually and then opened. The contents of all five wheelie bins in the sample unit were spread on a sorting table, and the individual items sorted into the appropriate categories. When all of the items in the sample unit were sorted, the individual classifications were weighed out and the material disposed of.

The kerbside rubbish was sorted into the 24 secondary categories described in Appendix 1. These categories are based on the 12 primary categories recommended by the SWAP and identify the different types of recoverable materials present in the waste.

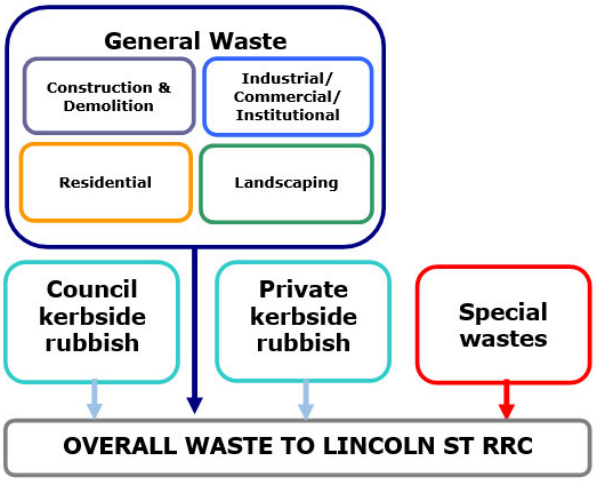
2.2 Visual surveys of vehicle loads of waste at Lincoln St RRC

Visual surveying provides information on vehicle loads of waste in terms of composition of the waste load and the activity source (e.g. landscaping, residential, and construction and demolition).

The composition of waste is based on the 12 primary categories (such as paper, plastics, timber.) recommended by the SWAP. Further secondary categories were chosen after consultation with Council. A detailed description of the categories is provided in Appendix 2.

2.2.1 Analysing waste streams

For the purpose of analysing waste streams, Waste Not differentiates between kerbside rubbish, special waste, and general waste, as shown in the diagram below. Different methods are used for determining the composition of each waste stream.



Kerbside rubbish, in this context, includes both Council and private collections of rubbish bags and wheelie bins from both residential and commercial/industrial properties. The composition of kerbside rubbish is most accurately determined using sort-and-weigh audits. The results of the audits to determine the composition of Council's kerbside rubbish collection are presented in section 3.

No kerbside rubbish was disposed of at Lincoln St RRC during the visual surveys in May and October 2022. Virtually all Council kerbside rubbish is disposed of at ESL's Sunshine Ave transfer station. It is understood that a small number loads are disposed of at Lincoln St RRC.

There is no precise definition for 'special waste', as these wastes vary between disposal facilities. The only special waste disposed of at Lincoln St RRC is road sweepings. This material has been classified as a 'special waste' because of the quantity of material, its seasonal variation, and its composition. Road sweepings have been classified as 'Potentially hazardous' due to the lack of information on its eco-toxicity. Road sweepings are potentially contaminated with hydrocarbons and heavy metals.

General waste is considered to be all wastes other than kerbside rubbish and special waste. Visual surveying is used primarily for determining the composition of the general waste stream.

2.2.2 Visual assessment of waste composition

While each vehicle was being unloaded into the transfer pit at Lincoln St RRC, the surveyor assessed the relative weight of each constituent present in the load on the basis of volume and density. Absolute weights of individual materials were not estimated; rather, the proportion of weight represented by each material was estimated. These data were recorded as a

proportion, by weight, for each constituent present in the load. Materials that were recovered from the transfer pit, primarily metal and timber, were excluded from the survey and an estimated weight deducted from the load weight.

For vehicle loads in which it was difficult to distinguish the individual constituents, a generic composition, based on previous surveys of that type of vehicle load, was used as a template for the composition then adjusted according to the materials that were visible.

Data was not recorded on vehicles disposing of cleanfill, timber, or greenwaste into the separate areas at Lincoln St RRC designated for their disposal.

When materials were recovered from a load by transfer station staff after unloading, an estimate was recorded of the percentage of the total weight of the load that was diverted. The recovered materials were not included in the estimate of the composition of the load. During the May survey, staff only recovered materials from a load prior to it being pushed up by the loader. However, during the October survey, an excavator with a grapple was used to recover materials from the waste after it had been pushed up. This made estimating the proportion of materials recovered from individual loads problematic. As a result, the October survey results may have overestimated the quantities of divertable materials in landfilled waste.

2.2.3 Activity sources

The activity sources that were used for classifying waste loads at Lincoln St RRC were those recommended by the National Waste Data Framework:

1. **Construction & demolition (C&D)** - waste materials from the construction or demolition of a building
2. **Industrial/commercial/institutional (ICI)** - waste from industrial, commercial, and institutional sources
3. **Kerbside rubbish -** waste collected from residential and commercial premises by private and council kerbside rubbish collections
4. **Landscaping & earthworks** - waste from landscaping activity, garden maintenance, and site works, both domestic and commercial
5. **Residential** - all waste originating from residential premises other than that covered by one of the other, more specific classifications (includes drop-offs of bagged domestic waste)
6. **Special wastes** - a subjective classification that includes any substantial waste stream (such as biosolids, infrastructural cleanfill, or industrial wastes), that either requires special handling or significantly affects the overall composition of the waste.
7. **Transfer station** - waste entering a facility from another transfer station.

The activity source of each load was assessed and recorded by the surveyor at the same time as the composition was being assessed and recorded. If a load contained materials from more than one activity source, a judgement was made as to which activity source predominated in the load.

2.2.4 Identification of vehicle types

As loads carried by different vehicle types are not affected in similar ways by waste reduction initiatives, vehicles carrying waste were classified according to the system shown in Table 2.1. Photos and more detailed explanations of the truck types are provided in Appendix 3.

Table 2.1 - Vehicle classification system

Vehicle type	Uses
Car-sized loads	Small loads, generally from a single source, can be of either commercial or residential origin. Includes vehicles other than cars carrying very small loads, such as a van carrying a few rubbish bags.
Trailer-sized loads – including vans, small trucks, and utes	Small-medium sized loads, usually from a single source, either commercial or residential, some may be from multiple sources (i.e. a garden contractor)
Kerbside collection compactors	Large load usually from multiple regular sources, either residential or commercial or both combined
Front-loader trucks	Large loads, usually from numerous commercial sources that are regular users
Gantry trucks	Medium-large loads, usually from a single source, may be one-off disposal for residential or commercial waste, or regularly used by a commercial waste generator
Hook truck	Large loads, usually from a single source, may be one-off loads or regularly used by a large-scale waste generator.
Other trucks – including tip, box, and flat-deck	Medium to large loads, usually commercial, may be one-off loads or regular waste generators

2.2.5 Data analysis

Using the vehicle registration, time, and date recorded during the survey, each surveyed vehicle load was matched with the corresponding load weight in the weighbridge records. The visual survey composition data for each load was then applied to the weighbridge tonnage data for the vehicle to determine the weight of each material in the load. The estimated weight of materials recovered from each load was deducted from the weighbridge weight.

For any vehicles that were not weighed or for which the weighbridge record could not be located, the load weight that had been estimated by the surveyor was used to calculate the weight of each material in each load.

The compositions, by weight, of all loads of each activity source were aggregated and an overall composition for that activity source was calculated. Composition data for each vehicle type was analysed in the same manner to calculate the composition for each vehicle type.

Weekly tonnages for compactors, front-end loaders, gantry trucks, and hook trucks were based on analysis of weighbridge records for eight-week periods. For the May visual survey, weighbridge records for 2 April - 27 May 2022 were analysed. For the October visual survey, complete weighbridge records were not available due to issues with new weighbridge software. The incomplete records that were available for 17 September - 11 November were analysed, but the reliability of the data was uncertain. These were augmented with a product code summary for September, October, and November.

To calculate the composition of general waste, the compositions of the four relevant activity sources were combined. The compositions were combined based on a weighted average, with the weighting based on the proportions of weight of each activity source in the surveyed loads.

The tonnages of general waste for each survey were based on weekly tonnages of waste disposed of to Hampton Downs landfill, which were included in weighbridge summaries provided by Council. The tonnage of general waste was calculated by deducting the weekly tonnages of special waste (road sweepings) from the weekly tonnage to landfill.

The overall composition of waste disposed of at Lincoln St RRC was calculated by adding the weekly tonnages of general waste and special waste.

2.3 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 + 1.264	1.26 + 1.26	1.3 + 1.3	1 + 1
= 2.528	= 2.53	= 2.5	= 3

3 Council kerbside rubbish

3.1 Audit and sampling schedules

The sort-and-weigh audits of kerbside rubbish took place on the dates shown in Table 3.1.

Table 3.1 - Dates of kerbside rubbish audits

Kerbside rubbish audits	Dates of audits
Kerbside rubbish audit 1	Monday 13 June - Wednesday 15 June 2022
Kerbside rubbish audit 2	Wednesday 2 - Friday 4 November 2022

3.2 Composition of Council 120-litre rubbish wheelie bins

The primary composition of Council 120-litre rubbish wheelie bins is presented in Table 3.2 below and Figure 3.1 on the following page. The secondary composition of Council 120-litre rubbish wheelie bins, which includes all 24 classifications, is presented in Table 3.3. The results of the individual audits are presented in Appendix 5 and Appendix 6.

The composition shown in Table 3.2 is the weighted average of the two 2022 audits, with the weighting based on average weekly tonnages provided by Council. As not all households set out a wheelie bin for every fortnight collection, the mean bin weight cannot be regarded as equivalent to an average fortnightly household waste generation.

Table 3.2 - Primary composition of Council 120-litre wheelie bins - 2022

Council 120-litre kerbside rubbish bins - Both 2022 audits combined	Proportion of total	Mean wt. per wheelie bin	Tonnes per week
Paper	9.2%	0.75 kg	27.2 T/week
Plastics	13.6%	1.11 kg	40.2 T/week
Organics	44.6%	3.64 kg	133.1 T/week
Ferrous metals	2.6%	0.21 kg	7.6 T/week
Non-ferrous metals	1.3%	0.11 kg	3.8 T/week
Glass	1.9%	0.16 kg	5.6 T/week
Textiles	6.3%	0.51 kg	18.4 T/week
Sanitary paper	13.9%	1.13 kg	41.3 T/week
Rubble	3.4%	0.28 kg	10.2 T/week
Timber	1.4%	0.12 kg	4.1 T/week
Rubber	0.5%	0.04 kg	1.5 T/week
Potentially hazardous	1.5%	0.12 kg	4.5 T/week
TOTAL	**100.0%**	**8.18 kg**	**297.7 T/week**

Organic material, primarily food waste, was the largest single component of the kerbside rubbish, comprising 44.6% of the total weight, or 3.64 kg per average wheelie bin. Sanitary paper was the second largest component, 13.9%, and, plastics, 13.6%, was the third largest component.

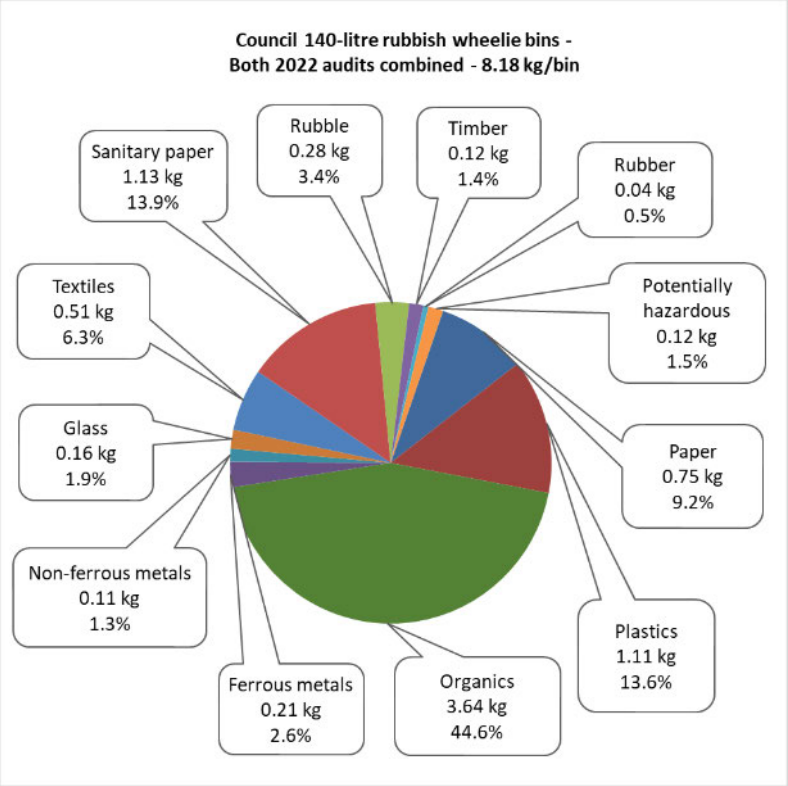


Figure 3.1 - Primary composition of Council 120-litre rubbish wheelie bins - 2022

3.3 Distribution of 120-litre wheelie bins weights

A combined total of 300 Council 120-litre rubbish wheelie bins were sorted for the June and November 2022 waste audits. The contents of the average 120-litre wheelie bin weighed 8.18 kg. The distribution of the 300 bin weights is shown in Figure 3.2below.

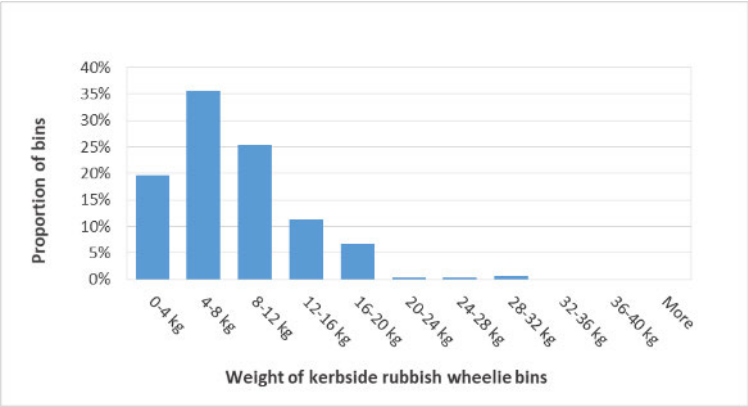


Figure 3.2 - Distribution of 120-litre rubbish wheelie bin weights - 2022

The contents of 55% of bins weighed less than 8 kg and 19% weighed more than 12 kg. The heaviest bin weighed 29.9 kg.

3.4 Secondary composition of Council 120-litre rubbish wheelie bins

Table 3.3 - Secondary composition of Council 120-litre wheelie bins - 2022

Hamilton City Council kerbside rubbish 120-litre wheelie bins - Both 2022 audits combined		% of total weight	Kg per rubbish wheelie bin	Tonnes/week
Paper	Recyclable paper	6.1%	0.50 kg	18.0 T/week
	Non-recyclable paper	3.1%	0.25 kg	9.1 T/week
	Subtotal	**9.2%**	**0.75 kg**	**27.2 T/week**
Plastics	# 1 & 2 bottles & containers	2.0%	0.16 kg	5.9 T/week
	# 3-7 bottles & containers	1.2%	0.09 kg	3.4 T/week
	Plastic bags & film	7.1%	0.58 kg	21.3 T/week
	Other non-recyclable plastic	3.3%	0.27 kg	9.6 T/week
	Subtotal	**13.6%**	**1.11 kg**	**40.2 T/week**
Organics	Kitchen waste	34.1%	2.79 kg	102.1 T/week
	Other compostable	1.5%	0.12 kg	4.5 T/week
	Greenwaste	6.3%	0.52 kg	18.8 T/week
	Organic other	2.6%	0.21 kg	7.7 T/week
	Subtotal	**44.6%**	**3.64 kg**	**133.1 T/week**
Ferrous metals	Steel cans	1.1%	0.09 kg	3.2 T/week
	Other steel	1.5%	0.12 kg	4.5 T/week
	Subtotal	**2.6%**	**0.21 kg**	**7.6 T/week**
Non ferrous metals	Aluminium cans	0.7%	0.05 kg	1.9 T/week
	Other non-ferrous	0.6%	0.05 kg	1.9 T/week
	Subtotal	**1.3%**	**0.11 kg**	**3.8 T/week**
Glass	Recyclable glass	1.4%	0.12 kg	4.2 T/week
	Non-recyclable glass	0.5%	0.04 kg	1.4 T/week
	Subtotal	**1.9%**	**0.16 kg**	**5.6 T/week**
Textiles	Clothing/textiles	3.5%	0.29 kg	10.3 T/week
	Other textiles	2.8%	0.23 kg	8.1 T/week
	Subtotal	**6.3%**	**0.51 kg**	**18.4 T/week**
Sanitary paper		**13.9%**	**1.13 kg**	**41.3 T/week**
Rubble		**3.4%**	**0.28 kg**	**10.2 T/week**
Timber		**1.4%**	**0.12 kg**	**4.1 T/week**
Rubber		**0.5%**	**0.04 kg**	**1.5 T/week**
Potentially hazardous	Household	1.3%	0.11 kg	3.9 T/week
	Other	0.2%	0.02 kg	0.6 T/week
	Subtotal	**1.5%**	**0.12 kg**	**4.5 T/week**
TOTAL		**100.0%**	**8.18 kg**	**297.7 T/week**

3.5 Diversion potential of Council 120-litre rubbish wheelie bins

To reduce waste to landfill, Council provides residential properties with separate kerbside collections of mixed recycling, glass, and food scraps. The kerbside mixed recycling collection accepts #1-7 plastic bottles and containers, clean cardboard and paper, and steel and aluminium cans. Council also operates a recycling drop-off facility at Lincoln Street RRC that accepts, at no charge, all of the materials accepted by the kerbside recycling collections.

For the disposal of food waste, residents can use Council's weekly food scraps collection, compost at home, establish a worm farm, or feed the food waste to hens or other animals. For the disposal of greenwaste, residents can compost at home or deliver the material to one of the drop-off facilities in the city. Table 3.4 shows the proportion of materials in kerbside rubbish bins that could have been diverted from landfill disposal using these methods. The weight of each material per average kerbside rubbish bin and the weekly tonnage of each material are also shown.

Table 3.4 - Diversion potential of Council 120-litre rubbish wheelie bins - 2022

Council 120-litre rubbish wheelie bins Diversion potential - Both 2022 audits combined	% of total weight	Weight per bin	Tonnes per week
RECYCLABLE MATERIALS			
Paper Recyclable	6.1%	0.50 kg	18 T/week
Plastics #1,2,5 bottles & containers	2.0%	0.16 kg	6 T/week
Plastics # 3,4,6,7 bottles & containers	1.2%	0.09 kg	3 T/week
Steel cans	1.1%	0.09 kg	3 T/week
Aluminium cans	0.7%	0.05 kg	2 T/week
Recyclable glass	1.4%	0.12 kg	4 T/week
Subtotal	**12.4%**	**1.01 kg**	**37 T/week**
COMPOSTABLE MATERIALS			
Organics - Kitchen waste	34.1%	2.79 kg	102 T/week
Organics - Other compostable	1.5%	0.12 kg	5 T/week
Organics - Greenwaste	6.3%	0.52 kg	19 T/week
Subtotal	**42.0%**	**3.43 kg**	**125 T/week**
TOTAL DIVERTABLE MATERIALS	**54.4%**	**4.45 kg**	**162 T/week**
NON-DIVERTABLE MATERIALS	**45.6%**	**3.73 kg**	**136 T/week**

Approximately 12.4%, by weight, of the materials in Council's kerbside rubbish bins could have been recycled through Council's kerbside recycling collection or at a recycling drop-off centre. This equates to 1.01 kg in the average kerbside rubbish bin or 37 tonnes per week. A further 42.0% of materials, or 125 tonnes per week, could have been composted, either at home or, in the case of greenwaste, by being disposed of at one of the drop-off facilities. Food waste could have been disposed of in the Council kerbside food scraps bin.

Overall, 54.4%, or 162 tonnes per week, of materials in kerbside rubbish bins could have been recycled or composted. This is a theoretical maximum, as no system is able to divert all of a material.

4 Lincoln St Resource Recovery Centre

Lincoln St RRC was surveyed from 1-4 May and 2-5 October 2022. In the 1-4 May survey, data was collected on a total of 499 vehicles. In the 2-5 October survey, data was collected on a total of 463 vehicles.

The data from the visual surveys was used to determine the composition of the general waste (i.e. excluding kerbside rubbish collections) disposed of at the facility. No compactors transporting kerbside rubbish disposed of waste during the survey periods.

The average weekly tonnages of waste to landfill from Lincoln St RRC are based on Hampton Downs landfill weighbridge records. For the 1-4 May survey, Council provided a figure of 602 tonnes per week being disposed of to landfill from Lincoln St RRC. For the 2-5 October survey, Council provided records indicating 642 tonnes per week were being disposed of to landfill.

Table 4.1 shows the activity sources of waste disposed of at Lincoln St RRC during the two survey periods. The tonnage figures are the averages of the tonnage figures for the two individual surveys. The data for the individual surveys is presented in Appendix 8.

The data only includes loads of waste that were disposed of in the residual waste pit, and does not include any materials that were disposed of at the separate drop-off points provided at the facility for greenwaste, timber, or other recoverable materials.

Table 4.1 - Activity sources of Lincoln St RRC waste - Both 2022 surveys combined

Activity sources of waste loads at Lincoln St RRC - Both 2022 surveys combined	% of loads surveyed	% of total weight	Tonnes/ week
Construction & demolition	26%	37%	233 T/week
Industrial/commercial/institutional	22%	28%	172 T/week
Landscaping & earthworks	8%	10%	61 T/week
Residential	42%	19%	117 T/week
Subtotal - general waste	**97%**	**93%**	**582 T/week**
Kerbside rubbish	0%	0%	0 T/week
Special waste (road sweepings)	3%	7%	40 T/week
TOTAL	**100%**	**100%**	**622 T/week**

An average of 622 tonnes per week of residual waste were disposed of at Lincoln St RRC during the periods analysed for the two surveys. Construction and demolition waste represented the largest activity source of waste to landfill, comprising 37% of the total weight, or 233 tonnes per week. Industrial/ commercial/institutional waste comprised 28% of all waste to landfill, by weight. Residential waste comprised 19% of the total weight. Road sweepings, which were classified as a special waste, comprised 7% of the total weight.

No kerbside rubbish was disposed of during either survey period. Council has advised, however, that during the October and November period a small number of loads of Council kerbside rubbish were disposed of at Lincoln St RRC.

4.1.1 Lincoln St RRC - Primary composition of general and overall waste streams

The primary compositions of the general waste stream, which excludes special waste (road sweepings), and the overall waste stream, which includes special waste (road sweepings), disposed of at Lincoln St RRC are presented in Table 4.2 below and Figure 4.1 on the next page. The secondary compositions, which include all 25 categories, are shown in Table 4.3. The secondary compositions of the May and October surveys are presented in Appendix 9 and Appendix 10.

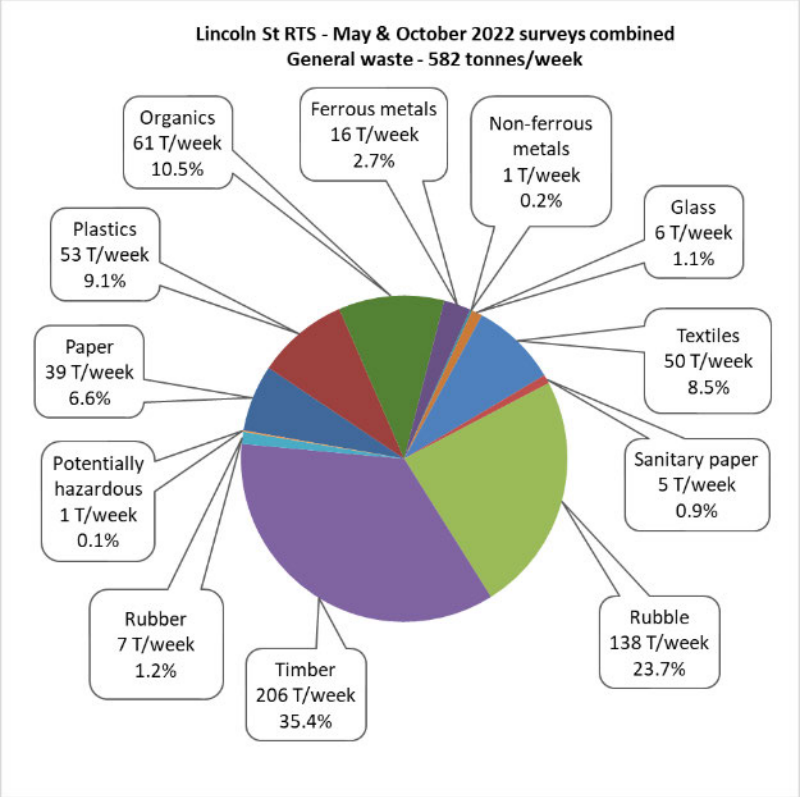
Table 4.2 - Primary composition of Lincoln St RRC waste - Both 2022 surveys combined

Primary composition of Lincoln St RRC waste - Both 2022 surveys combined	General waste (excludes special waste)		Overall waste (includes special waste)	
	% of total	Tonnes per week	% of total	Tonnes per week
Paper	6.6%	39 T/week	6.2%	39 T/week
Plastics	9.1%	53 T/week	8.5%	53 T/week
Organics	10.5%	61 T/week	9.8%	61 T/week
Ferrous metals	2.7%	16 T/week	2.5%	16 T/week
Non-ferrous metals	0.2%	1 T/week	0.2%	1 T/week
Glass	1.1%	6 T/week	1.0%	6 T/week
Textiles	8.5%	50 T/week	8.0%	50 T/week
Sanitary paper	0.9%	5 T/week	0.8%	5 T/week
Rubble	23.7%	138 T/week	22.2%	138 T/week
Timber	35.4%	206 T/week	33.1%	206 T/week
Rubber	1.2%	7 T/week	1.1%	7 T/week
Potentially hazardous	0.1%	1 T/week	6.6%	41 T/week
TOTAL	**100.0%**	**582 T/week**	**100.0%**	**622 T/week**

Timber was the largest component of the general waste stream, comprising 35.4% of the total weight. Rubble was the second largest component of general waste, comprising 23.7% of the total weight. The high proportions of timber and rubble are associated with C&D being the largest activity source of waste.

Timber and rubble were the largest and second largest components of the overall waste stream as well, comprising 33.1% (206 tonnes/week) and 22.2% (138 tonnes/week) respectively.

The proportion of potentially hazardous materials is substantially higher in overall waste than in general waste. This is due to all special waste (road sweepings) (40 tonnes/week) having been classified as being potentially hazardous.



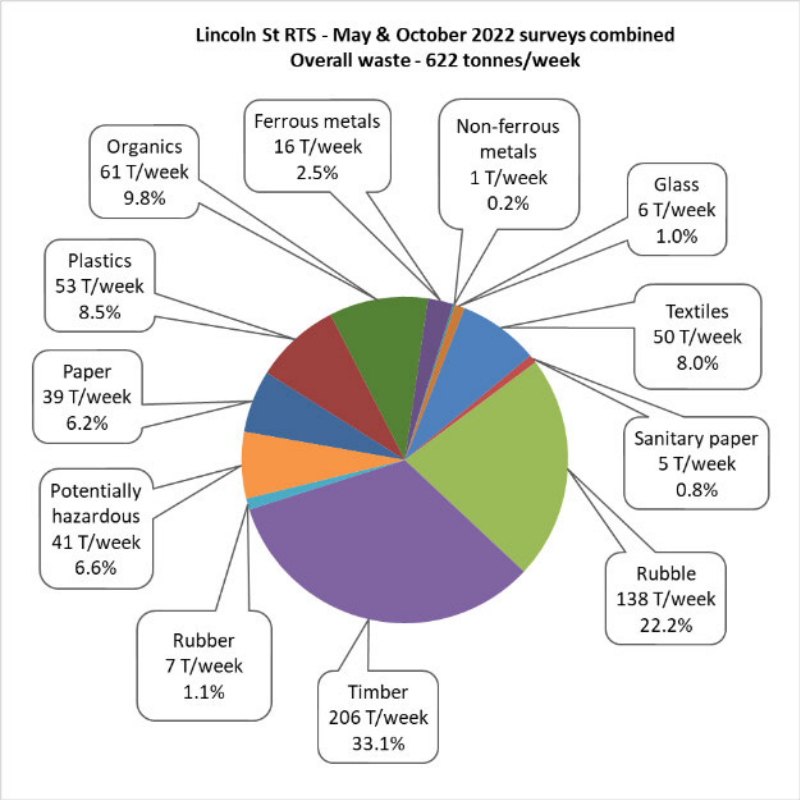


Figure 4.1 - Primary compositions of Lincoln St RRC general and overall waste - Both 2022 surveys combined

4.1.2 Lincoln St RRC - Secondary composition of general and overall waste streams

Table 4.3 - Secondary composition of Lincoln St RRC waste - Both 2022 surveys combined

Lincoln St RRC General and overall waste streams - Both 2022 surveys combined		General waste (excludes special waste)		Overall waste (includes special waste)	
		% of total	Tonnes per week	% of total	Tonnes per week
Paper	Recyclable	1.1%	7 T/week	1.1%	7 T/week
	Cardboard	4.5%	26 T/week	4.2%	26 T/week
	Non-recyclable	1.0%	6 T/week	0.9%	6 T/week
	Subtotal	**6.6%**	**39 T/week**	**6.2%**	**39 T/week**
Plastics	Recyclable	0.2%	1 T/week	0.2%	1 T/week
	Non-recyclable	8.8%	51 T/week	8.3%	51 T/week
	Subtotal	**9.1%**	**53 T/week**	**8.5%**	**53 T/week**
Organics	Food waste	3.4%	20 T/week	3.1%	20 T/week
	Compostable greenwaste	5.7%	33 T/week	5.4%	33 T/week
	Non-compostable greenwaste	0.6%	4 T/week	0.6%	4 T/week
	Organics other	0.7%	4 T/week	0.7%	4 T/week
	Subtotal	**10.5%**	**61 T/week**	**9.8%**	**61 T/week**
Ferrous metals	Primarily ferrous	1.4%	8 T/week	1.3%	8 T/week
	Steel other	1.2%	7 T/week	1.2%	7 T/week
	Subtotal	**2.7%**	**16 T/week**	**2.5%**	**16 T/week**
Non-ferrous metals		**0.2%**	**1 T/week**	**0.2%**	**1 T/week**
Glass	Recyclable	0.4%	2 T/week	0.4%	2 T/week
	Glass other	0.6%	4 T/week	0.6%	4 T/week
	Subtotal	**1.1%**	**6 T/week**	**1.0%**	**6 T/week**
Textiles	Clothing/textiles	2.0%	12 T/week	1.9%	12 T/week
	Multimaterial/other	6.6%	38 T/week	6.1%	38 T/week
	Subtotal	**8.5%**	**50 T/week**	**8.0%**	**50 T/week**
Sanitary paper		**0.9%**	**5 T/week**	**0.8%**	**5 T/week**
Rubble	Cleanfill	5.1%	30 T/week	4.8%	30 T/week
	New plasterboard	3.0%	18 T/week	2.8%	18 T/week
	Other	15.6%	91 T/week	14.6%	91 T/week
	Subtotal	**23.7%**	**138 T/week**	**22.2%**	**138 T/week**
Timber	Reusable	0.8%	5 T/week	0.7%	5 T/week
	Unpainted & untreated	4.8%	28 T/week	4.5%	28 T/week
	Non-recoverable	29.8%	173 T/week	27.9%	173 T/week
	Subtotal	**35.4%**	**206 T/week**	**33.1%**	**206 T/week**
Rubber		**1.2%**	**7 T/week**	**1.1%**	**7 T/week**
Potentially hazardous		**0.1%**	**1 T/week**	**6.6%**	**41 T/week**
TOTAL		**100.0%**	**582 T/week**	**100.0%**	**622 T/week**

4.1.3 Lincoln St RRC - Primary composition of general waste - By activity source of waste loads

The primary compositions of the four activity sources that made up the general waste stream at Lincoln St RRC are shown in Table 4.4. Secondary compositions are given in Appendix 11. Secondary compositions from the May and October surveys are presented in Appendix 12 and Appendix 13, in terms of both percentages and tonnes/week.

Table 4.4 -Lincoln St RRC general waste - By activity source - Both 2022 surveys combined

Lincoln St RRC general waste - By activity source Both 2022 surveys combined	Construction & demolition	Industrial/ commercial/ institutional	Landscaping & earthworks	Residential
Paper	3.2%	11.6%	0.7%	9.1%
Plastics	3.3%	19.2%	0.8%	10.2%
Organics	0.7%	11.4%	41.9%	12.1%
Ferrous metals	1.5%	3.0%	0.6%	5.7%
Non-ferrous metals	0.0%	0.4%	0.0%	0.4%
Glass	1.0%	1.4%	0.1%	1.2%
Textiles	1.3%	10.7%	1.0%	23.8%
Sanitary paper	0.0%	1.6%	0.1%	1.9%
Rubble	37.9%	10.6%	40.3%	6.3%
Timber	51.1%	29.0%	6.9%	28.4%
Rubber	0.0%	0.9%	7.7%	0.7%
Potentially hazardous	0.0%	0.2%	0.0%	0.4%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week	**233 T/week**	**172 T/week**	**61 T/week**	**117 T/week**

C&D waste was composed primarily of timber (51.1%) and rubble (37.9%), which, combined, represented 88.9%, by weight, of C&D waste. ICI waste was more heterogeneous, with timber (29.0%) being the largest component. Landscaping & earthworks waste was 41.9% organic material, which was primarily greenwaste, and rubble (40.3%), which was mainly soil. Residential waste was heterogeneous, with timber (28.4%) being the largest component and textiles (23.8%) being the second largest component. Timber was present in residential waste primarily as furniture and construction materials. Textiles comprised mainly carpet and clothing with some soft furnishings.

4.1.4 Lincoln St RRC - Overall waste stream - by vehicle type

Table 4.5 shows the percentage of loads transported by each of the seven vehicle types at Lincoln St RRC, the percentage of total weight carried by each vehicle type, and the tonnes per week. No front-end loaders disposed of waste at Lincoln St RRC during the October survey period.

The results from the May and October surveys are presented separately in Appendix 14.

Table 4.5 - Lincoln St RRC waste - By vehicle type - Both 2022 surveys combined

Lincoln St RRC overall waste - By vehicle type - Both 2022 surveys combined	% of loads surveyed	% of weight	Tonnes/week
Car-sized loads	19%	3.6%	23 T/week
Compactors	1%	2.2%	13 T/week
Front-loaders	0%	0.1%	1 T/week
Gantry trucks	13%	25.9%	161 T/week
Hook trucks	0%	4.5%	28 T/week
Other trucks	9%	16.1%	100 T/week
Trailer-sized loads	58%	47.6%	296 T/week
TOTAL	**100%**	**100.0%**	**622 T/week**

Trailer-sized loads represented 58% of the loads surveyed and transported 47.6% of the total weight. While gantries were 13% of all loads surveyed, these loads represented 25.9% of the total weight of waste. The small number of compactors during the survey periods were transporting the Council litter collection, which was classified as ICI waste.

4.1.5 Lincoln St RRC - Primary composition of general waste - by vehicle type

The primary compositions of five main vehicle types transporting waste (compactors and front-end loaders are excluded) are shown in Table 4.6. Secondary compositions are given in Appendix 15. The results for the May and October surveys are presented separately in Appendix 16 and Appendix 17.

Table 4.6 - Lincoln St RRC general waste - by vehicle type - Both 2022 surveys combined

Lincoln St RRC general waste - by vehicle type Both 2022 surveys combined	Car-sized loads	Gantry	Hook	Other truck	Trailer-sized loads
Paper	13.0%	6.0%	9.2%	4.4%	6.4%
Plastics	13.3%	9.8%	16.1%	3.6%	8.3%
Organics	29.1%	8.7%	0.0%	10.6%	11.8%
Ferrous metals	3.0%	3.2%	1.1%	1.0%	2.4%
Non-ferrous metals	0.6%	0.1%	0.0%	0.2%	0.3%
Glass	1.7%	0.4%	0.0%	1.0%	1.6%
Textiles	16.9%	4.0%	0.0%	9.4%	12.2%
Sanitary paper	5.5%	0.5%	0.0%	0.6%	0.9%
Rubble	2.5%	27.2%	19.6%	21.1%	18.4%
Timber	12.6%	39.7%	54.0%	11.5%	34.9%
Rubber	1.1%	0.3%	0.0%	0.2%	2.8%
Potentially hazardous	0.7%	0.1%	0.0%	36.5%	0.2%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

4.1.6 Lincoln St RRC - Diversion potential

Of the 25 material classifications used in the visual survey, nine are commonly recycled or recovered in New Zealand. A further three materials are compostable. There are currently diversion options available in Hamilton for most of these 12 materials. Based on these 12 materials, Table 4.7 shows the proportion of the general and overall waste streams that could potentially be diverted from landfill disposal. The percentages and tonnages have been taken from Table 4.3. For the analysis, it has been assumed that 80% of all timber is recoverable. All types of timber are currently recovered at Lincoln St RRC, but not all materials are physically suitable for recovery, such as sawdust.

Table 4.7 - Diversion potential of Lincoln St RRC general and overall waste streams - Both 2022 surveys combined

Lincoln St RRC waste Diversion potential Both 2022 surveys combined	General waste (excludes kerbside rubbish)		Overall waste (includes kerbside rubbish)	
	% of total	T/week	% of total	T/week
Recyclable and recoverable materials				
Paper - Recyclable	1.1%	7 T/week	1.1%	7 T/week
Paper - Cardboard	4.5%	26 T/week	4.2%	26 T/week
Plastic - Recyclable	0.2%	1 T/week	0.2%	1 T/week
Ferrous metals	2.7%	16 T/week	2.5%	16 T/week
Non-ferrous metals	0.2%	1 T/week	0.2%	1 T/week
Glass - Recyclable	0.4%	2 T/week	0.4%	2 T/week
Textiles - Clothing	2.0%	12 T/week	1.9%	12 T/week
Rubble - Cleanfill	5.1%	30 T/week	4.8%	30 T/week
Timber - 80% of all timber	28.3%	165 T/week	26.5%	165 T/week
Subtotal	**44.6%**	**259 T/week**	**41.7%**	**259 T/week**
Compostable materials				
Organics - Food waste	3.4%	20 T/week	3.1%	20 T/week
Organics - Compostable greenwaste	5.7%	33 T/week	5.4%	33 T/week
Rubble - New plasterboard	3.0%	18 T/week	2.8%	18 T/week
Subtotal	**12.1%**	**70 T/week**	**11.3%**	**70 T/week**
TOTAL - Potentially divertable	**56.7%**	**330 T/week**	**53.0%**	**330 T/week**

Recyclable and recoverable materials comprised 44.6% of the general waste stream at Lincoln St RRC and 41.7% of the overall waste stream. Compostable materials comprised 12.1% of the general waste stream and 11.3% of the overall waste stream. Overall, approximately 56.7% of the general waste stream at Lincoln St RRC and 53.0% of the overall waste stream could have been diverted from landfill disposal.

The largest single divertable component was timber, which comprised 26.5% of the overall waste stream, or 165 tonnes per week, assuming an 80% recovery rate of all timber disposed of as residual waste. As discussed in section 2.2.2, due to the manner in which materials were

recovered from loads of waste during the October survey, the estimates of diverted materials made during the survey were marginally low. As a result, based on an analysis of Council tonnage data on recovered materials, the tonnages for ferrous metals, cleanfill, new plasterboard, and timber in Table 4.7 are up to 10% high.

4.1.7 Lincoln St RRC - Divertable materials - By activity source

Waste minimisation initiatives can be directed at a specific material type, such as food waste, at a waste-generating activity, such as domestic activity, or at a combination of both, such as food waste in kerbside rubbish. In Table 4.8 the average weekly tonnages for the divertable materials in overall waste to Lincoln St RRC are broken down by activity source. The materials are shown in the same order as in Table 4.7. The cells for the individual materials have been formatted from the lowest value (no shading) to the highest value (red shading).

The analysis shown in Table 4.8 for the individual May and October surveys are presented in Appendix 19.

Table 4.8 - Overall waste to Lincoln St RRC - Divertable materials - By activity source

Lincoln St RRC waste - Divertable materials - By activity source - Both 2022 surveys combined	Construction & demolition	Industrial/ commercial/ institutional	Landscaping & earthworks	Residential
Paper - Recyclable	0.1 T/week	3.3 T/week	0.1 T/week	3.1 T/week
Paper - Cardboard	5.9 T/week	12.9 T/week	0.3 T/week	7.0 T/week
Plastic - Recyclable	0.0 T/week	1.0 T/week	0.0 T/week	0.4 T/week
Ferrous metals	3.5 T/week	5.1 T/week	0.4 T/week	6.7 T/week
Non-ferrous metals	0.1 T/week	0.7 T/week	0.0 T/week	0.5 T/week
Glass - Recyclable	0.0 T/week	1.8 T/week	0.1 T/week	0.5 T/week
Textiles - Clothing	0.2 T/week	6.4 T/week	0.1 T/week	4.8 T/week
Rubble - Cleanfill	17.4 T/week	0.4 T/week	10.4 T/week	1.5 T/week
Timber - 80% of all timber	95.0 T/week	39.8 T/week	3.3 T/week	26.6 T/week
Food waste	0.1 T/week	12.1 T/week	0.2 T/week	7.2 T/week
Compostable greenwaste	1.4 T/week	3.6 T/week	22.4 T/week	5.9 T/week
New plasterboard	16.9 T/week	0.5 T/week	0.0 T/week	0.1 T/week
TOTAL	**141 T/week**	**88 T/week**	**37 T/week**	**64 T/week**

The largest tonnages of divertable materials disposed of at Lincoln St RRC were timber in C&D waste (95.0 tonnes per week), ICI waste (39.8 tonnes per week), and residential waste (26.6 tonnes per week). Substantial quantities of timber were being diverted during the survey periods, but considerable quantities remained in the residual waste.

Other significant quantities of divertable materials were compostable greenwaste in landscaping & earthworks waste (22.4 tonnes/week) and new plasterboard in C&D waste (16.9 tonnes/week).

Photos of readily divertable monoloads at Lincoln St RRC are included in section 5.4.

5 Discussion and analysis

5.1 Activity sources of waste - Comparison to previous visual surveys

The 2022 visual surveys took place during a period of major transition at Lincoln St RRC:

- Prior to 1 September 2020, Council leased the Lincoln St site to Waste Management NZ Ltd (WMNZL). When WMNZL's contract ended on 31 August 2020, the disposal of approximately 1,000 tonnes/week of WMNZL's commercial collections were diverted to a separate WMNZL-owned facility in Hamilton.
- After 1 September 2020, Council leased the Lincoln St site to EnviroWaste Services Ltd (ESL). ESL also operates a separate transfer station in Hamilton, on Sunshine Ave. In 2020, this site was closed temporarily for alterations and the construction of a materials recovery facility for processing kerbside recycling. Following completion of the alterations in 2021, ESL's collections, including Council's kerbside rubbish collection, were disposed of at the Sunshine Ave facility.

In 2013, 2017, and 2021 Waste Not Consulting conducted visual surveys of waste composition at Lincoln St RRC. All surveys used the same methodology as that described in section 2.2. Table 5.1 compares the activity source analysis from Table 4.1with the results of the same analyses of the results from the previous surveys. The data from 2021 is different than that provided to Council in preliminary results. A small amount (13 tonnes/week) of ICI waste was included in road sweepings in the preliminary results. This tonnage has been deducted from ICI waste in Table 5.1 and re-classified as special waste.

Table 5.1 - Comparison of activity sources of waste at Lincoln St RRC with previous surveys

Activity sources of all waste at Lincoln St RRC - All surveys compared	2013	2017	2021	2022
C&D	213 T/week	303 T/week	256 T/week	233 T/week
ICI	533 T/week	503 T/week	602T/week	172 T/week
Landscaping & earthworks	60 T/week	91 T/week	45 T/week	61 T/week
Residential	85 T/week	78 T/week	140 T/week	117 T/week
Subtotal - general waste	**891 T/week**	**975 T/week**	**1,042 T/week**	**582 T/week**
Kerbside rubbish	465 T/week	551 T/week	399 T/week	0 T/week
Special waste (road sweepings)	39 T/week	36 T/week	13 T/week	40 T/week
TOTAL	**1,395 T/week**	**1,563 T/week**	**1,454 T/week**	**622 T/week**

The overall tonnage of waste to landfill from Lincoln St RRC peaked in 2017 at 1,563 tonnes/week. The 622 tonnes/week in 2022 is a 60% reduction from 2017.

With two other transfer stations operating in Hamilton, for which no data is available, further comparisons between the 2022 survey and the other surveys would be of no value.

5.2 Per capita disposal of kerbside rubbish

The per capita disposal rate of kerbside rubbish from Hamilton is calculated in Table 5.2. The annual tonnage for the Council kerbside rubbish collection is based on an extrapolation of the average of the weekly tonnages applied to the June and November audits. The weekly figures for the two audits were provided by Council.

Private waste operators also collect kerbside rubbish in Hamilton from both commercial and residential properties. From observations made during the collection of the kerbside rubbish sample, approximately 10% of households use a private kerbside rubbish collection service. In Table 5.2, it has been assumed that private waste operators collect 10% of the tonnage of the Council service.

Table 5.2 - Per capita disposal of kerbside rubbish from Hamilton City

Per capita disposal of kerbside from Hamilton City	
Population of Hamilton City	180,000
Council kerbside rubbish collection	298 T/week
Assumed tonnage of private kerbside rubbish collections	30 T/week
Total weekly tonnage kerbside rubbish	327 tonnes/week
Total kerbside rubbish per annum	17,074 tonnes/annum
Per capita annual disposal of kerbside rubbish	**95 kg/capita/annum**

The estimated 17,074 tonnes of kerbside rubbish collected per annum in Hamilton equates to 95 kg per capita per annum. It is noted that the tonnage figure includes an assumed tonnage of privately collected kerbside rubbish, so the reliability of the figure is not uncertain.

5.3 Per capita disposal of kerbside rubbish - Comparison with other areas

The annual per capita disposal rate of kerbside rubbish calculated in Table 5.2 is compared to the disposal rates from other areas previously surveyed by Waste Not Consulting in Table 5.3. The 2022 figure for Hamilton is also compared to the figures from the 2013 and 2017 SWAP surveys.

Table 5.3 - Comparison of per capita disposal of kerbside rubbish with other areas

District and year of survey	Kg/capita/ annum	Comment
Hamilton City 2022	**95**	**Rates-funded fortnightly 120-litre wheelie bins (with weekly organic)**
Christchurch City 2011	110	Rates-funded fortnightly 140-litre wheelie bins (with weekly organic)
Whangarei District 2017	153	User-pays rubbish bags + private wheelie bins
Auckland Council 2016	156	User-pays rubbish bags + rates-funded wheelie bin + private wheelie bins
Bay of Plenty Region 2020	160	Various
Hamilton City 2013	**182**	**Rates-funded bags (2 per h/h max)**
Taupō District 2022	183	User-pays rubbish bags + private wheelie bins
Dunedin City 2018	187	User-pays rubbish bags + private wheelie bins
Tauranga and WBOP District 2019	192	User-pays rubbish bags + private wheelie bins
Hastings District/Napier City 2022	197	Rates-funded 120-litre wheelie bins + private wheelie bins
Hamilton City 2017	**197**	**Rates-funded bags (2 per h/h max)**
Wellington Region 2014/15	206	User-pays rubbish bags + private wheelie bins
Palmerston North 2022	215	User-pays rubbish bags + private wheelie bins

The calculated per capita disposal rate of kerbside rubbish from Hamilton is the lowest of the areas for which data is shown.

A number of factors are related to the quantity of kerbside rubbish generated in any given area, particularly the availability of kerbside organic collections and the proportion of households and businesses that use private wheelie bin rubbish collection services. In general, households that pay for private rubbish wheelie bin services dispose of a greater quantity of waste than households that opt for user-pays bags. This is not a significant factor in Hamilton, as the Council collection has a high proportion of the kerbside rubbish collection market.

5.4 Photos of readily divertable materials

Appendix 1 - Kerbside rubbish classifications

Primary category	Secondary category	Description
Paper	Paper recyclable	Newspapers, magazines, junk mail, envelopes, flattened cardboard boxes, shoe boxes, cartons, old phone books
	Paper non-recyclable	Heavily food-contaminated pizza boxes etc., gabletop beverage packaging, Tetra Pak, photographic paper, playing cards, laminated paper, plastic coated paper and card
Plastic	#1-2 bottles & container	All plastic containers with the #1 and #2 symbol
	#3-7 bottles & containers	All plastic containers with the #3-7 recycling symbol
	Plastic bags & film	Plastic shopping bags, bread bags, non-rigid plastic packaging and film, motor oil containers, containers > 4 litres
	Other non-recyclable plastic	All other non-recyclable items made primarily of plastic
Organics	Kitchen waste	All kitchen waste
	Other compostable	Cut flowers, vacuum cleaner dust, paper towels
	Greenwaste	All greenwaste (lawn clippings, plants, tree branches, etc.)
	Organic other	Includes cat tray litter, hair, animal faeces, candles
Steel	Steel cans	All steel cans, including aerosol cans
	Steel other	All non-packaging items made primarily of ferrous metal
Nonferrous	Aluminium cans	All aluminium cans, including aerosol cans, and containers
metal	Non-ferrous other	Items such as aluminium frying pans, pots, electrical wire
Glass	Glass bottles/jars	Whole bottles and jars, with the lids and contents removed
	Glass other	All other items made primarily of glass, includes light bulbs, drinking glasses, and window pane
Textiles	Clothing & rags	All items primarily made of a fabric, such as clothes, curtains
	Textile other	Includes shoes, backpacks, handbags, rugs
Sanitary paper	Nappies	Includes disposable nappies, tissues
Rubble	Rubble	All concrete, ceramics, fibreglass, rubble, and soil
Timber	Timber	All items made primarily of timber
Rubber	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, paint, and garden chemicals.

Appendix 2 - Visual survey waste classifications

Primary category	Secondary category	Description
Paper	Recyclable	Newspapers, magazines, office paper, etc.
	Cardboard	Kraft cartons
	Multimaterial/other	Multimaterials, building paper, contaminated paper
Plastics	Recyclable	Containers with recycling logo 1, 2, or 5
	Multimaterial/other	Other types of plastic and primarily plastic multimaterials
Organic	Food waste	Food and food preparation waste
	Compostable greenwaste	Foliage, lawn clippings, tree branches up to 100 mm
	Noncompostable greenwaste	Flax, bamboo, palm trees and cabbage trees, branches
	Multimaterial/other	Organic matter such as meat processing waste
Ferrous metals	Primarily ferrous	Items made primarily of steel
	Multimaterial/other	Ferrous items containing a sizable proportion of other materials
Nonferrous metals	Primarily Nonferrous	Items made primarily of nonferrous metal
Glass	Recyclable	Bottles and jars
	Multimaterial/other	Other items made primarily of glass, includes pane, TVs, and computer monitors
Textiles	Clothing/textile	Items made primarily of cloth or textiles
	Multimaterial/other	Items containing some textile and other materials, such as carpets, shoes, backpacks, suitcases
Sanitary paper	None	Sanitary materials such as nappies, paper towels, feminine hygiene products
Rubble	Cleanfill	All materials suitable for cleanfill disposal
	New plasterboard	Off-cuts of new plasterboard
	Other	Other materials such as debris, fibreglass, ceramics, plasterboard
Timber	Reusable	Lengths of timber and pieces of sheet suitable for reuse
	Unpainted & untreated	Unpainted and untreated lengths of timber
	Multimaterial/other	Sawdust, construction and demolition debris, CCA treated wood, particle board, MDF, plywood
Rubber	None	All items made primarily of rubber such as tyres, latex foam mattresses
Potentially hazardous	None	Material with potentially toxic or ecotoxic properties or having properties requiring special disposal techniques.

Appendix 3 - Types of waste collection vehicles

FRONT-LOADER TRUCKS

Front-loaders are top-loading compactors that use forks mounted to the front of the vehicle to lift bins over the cab and tip the contents of the bin into the compactor unit at the rear. Front-loaders work primarily in urban areas, regularly servicing medium to large-scale industrial, commercial, and institutional customers. In general, a business using front-loader bins would be serviced at least weekly, but can be serviced several times a day for a business like a large supermarket. Front-loaders vary in size, and may carry loads from 4 to 10 tonnes. A single load may contain waste from ten to fifty customers.

The potential for the recovery of materials from waste transported by front-loaders is limited. The waste load is compacted by the truck, and the loads tend to be large and heterogeneous. This restricts significantly the potential for manually separating recoverable materials when the load is discharged on a tipping floor. There are usually not significant quantities of easily-separable materials other than cardboard packaging in front-loader refuse.

GANTRY TRUCKS

Gantry trucks are used to transport gantry bins (skip bins) from customers' premises to a disposal facility. Gantry truck services are used by industrial, commercial, institutional, and residential customers. Some large-scale commercial waste generators use gantry bins as their regular disposal system. Residential customers and business customers both use gantry bins for one-off large-scale refuse removal. Some commercial customers, such as hotels and supermarkets, use portable, stationary refuse compactors that are transported for disposal by gantry trucks. Gantry bins are often used for special wastes, such as sludges, asbestos, and animal by-products

Typical gantry truck loads weigh from 0.5-3 tonnes. As most refuse transported in gantry bins is not compacted, there is often opportunity for manually recovering materials from gantry bins when discharged onto a tipping floor. Gantry bins often contain significant quantities of recoverable materials, such as timber and packaging and reusable items can be recovered intact from residential loads.

KERBSIDE COLLECTION COMPACTORS

Side-loading and rear-loading compactors are commonly used for the kerbside collection of residential and small business refuse. They can be designed to service bagged refuse collections, wheelie bin refuse collections, or both. Side-loading compactors can be used for bag collections or fitted with hydraulic arms for emptying wheelie bins without the driver leaving the vehicle. Rear-loading compactors can also be used for bag collections or fitted with hydraulic arms for emptying bins.

As kerbside collection vehicles collect small quantities of refuse from a large number of customers and the refuse is heavily compacted, there is little opportunity for manually recovering materials from the refuse.

OTHER TRUCKS

Other truck types commonly used for the transport of waste include tip trucks, box trucks, and flat decks. Tip trucks are most commonly used for the transport of waste from landscaping, earthworks, and construction and demolition activity. Box trucks are rarely used as dedicated waste transport vehicles, but are often used for waste transport by businesses that also use them for goods pick-up and delivery. Flat decks are used for the transport of bulky waste items, or by general carriers for the disposal of stackable items, such as pallets.

Appendix 4 - Charges at Lincoln St RRC

Regular Pricings

Rates effective from 1st July 2022

DESCRIPTION	REFUSE	GREEN
0 kgs to 20 kgs (Refuse) 0 kgs to 10 kgs (Greenwaste)	$6.32	$4.38
21 kgs to 100 kgs (Refuse) 11 kgs to 20 kgs (Greenwaste)	$26.84	$8.76
101 kgs to 200 kgs (Refuse) 21 kgs to 150 kgs (Greenwaste)	$59.89	$16.24
201 kgs to 300 kgs (Refuse) 151 kgs to 300 kgs (Greenwaste)	$68.64	$44.22
All Vehicles > 300 kgs	$254.34	$167.93

Other Services

DESCRIPTION	COST
Weigh only	$21.50 per weigh
Glass, Plastic, cans & tins	Free of charge
Cardboard, paper, whiteware	Free of charge
Scrap Metal, E-waste, Batteries	Free of charge for DOMESTIC CUSTOMERS only.
Polysterene	$1,834.63 per tonne (minimum $124.98 upto 70kgs)

Appendix 5 - Kerbside rubbish - Composition - June 2022

Hamilton City Council - Kerbside rubbish - June 2022 (margins of error for 95% confidence level)		% of total weight	Kg per rubbish wheelie bin	Tonnes/week
Paper	Recyclable paper	5.6% (±0.5%)	0.46 kg (±0.04 kg)	18.0 T/week
	Non-recyclable paper	3.0% (±0.2%)	0.25 kg (±0.02 kg)	9.7 T/week
	Subtotal	**8.7% (±0.6%)**	**0.70 kg (±0.05 kg)**	**27.8 T/week**
Plastics	# 1 & 2 bottles & containers	1.9% (±0.2%)	0.15 kg (±0.02 kg)	6.1 T/week
	# 3-7 bottles & containers	1.0% (±0.1%)	0.08 kg (±0.01 kg)	3.3 T/week
	Plastic bags & film	7.3% (±0.4%)	0.59 kg (±0.03 kg)	23.3 T/week
	Other non-recyclable plastic	2.7% (±0.3%)	0.22 kg (±0.03 kg)	8.8 T/week
	Subtotal	**12.9% (±0.7%)**	**1.05 kg (±0.05 kg)**	**41.4 T/week**
Organics	Kitchen waste	36.1% (±4.0%)	2.92 kg (±0.33 kg)	115.5 T/week
	Other compostable	1.6% (±0.3%)	0.13 kg (±0.02 kg)	5.1 T/week
	Greenwaste	6.1% (±2.3%)	0.49 kg (±0.19 kg)	19.5 T/week
	Organic other	2.7% (±1.0%)	0.22 kg (±0.08 kg)	8.7 T/week
	Subtotal	**46.5% (±4.2%)**	**3.76 kg (±0.34 kg)**	**148.8 T/week**
Ferrous metals	Steel cans	1.1% (±0.1%)	0.09 kg (±0.01 kg)	3.4 T/week
	Other steel	1.7% (±0.6%)	0.14 kg (±0.05 kg)	5.3 T/week
	Subtotal	**2.7% (±0.7%)**	**0.22 kg (±0.05 kg)**	**8.7 T/week**
Non ferrous metals	Aluminium cans	0.6% (±0.1%)	0.05 kg (±0.01 kg)	1.8 T/week
	Other non-ferrous	0.7% (±0.2%)	0.05 kg (±0.02 kg)	2.1 T/week
	Subtotal	**1.2% (±0.2%)**	**0.10 kg (±0.02 kg)**	**3.9 T/week**
Glass	Recyclable glass	1.5% (±0.3%)	0.12 kg (±0.03 kg)	4.6 T/week
	Non-recyclable glass	0.4% (±0.1%)	0.03 kg (±0.01 kg)	1.2 T/week
	Subtotal	**1.8% (±0.4%)**	**0.15 kg (±0.03 kg)**	**5.9 T/week**
Textiles	Clothing/textiles	2.9% (±0.7%)	0.23 kg (±0.06 kg)	9.2 T/week
	Other textiles	2.3% (±0.5%)	0.19 kg (±0.04 kg)	7.4 T/week
	Subtotal	**5.2% (±1.0%)**	**0.42 kg (±0.08 kg)**	**16.6 T/week**
Sanitary paper		**14.0% (±1.8%)**	**1.13 kg (±0.14 kg)**	**44.7 T/week**
Rubble		**4.0% (±1.2%)**	**0.33 kg (±0.10 kg)**	**12.9 T/week**
Timber		**0.7% (±0.2%)**	**0.06 kg (±0.02 kg)**	**2.3 T/week**
Rubber		**0.5% (±0.1%)**	**0.04 kg (±0.01 kg)**	**1.5 T/week**
Potentially hazardous	Household	1.3% (±0.3%)	0.11 kg (±0.02 kg)	4.3 T/week
	Other	0.3% (±0.2%)	0.02 kg (±0.02 kg)	0.9 T/week
	Subtotal	**1.6% (±0.3%)**	**0.13 kg (±0.03 kg)**	**5.1 T/week**
TOTAL		**100.0%**	**8.09 kg (±0.42 kg)**	**319.8 T/week**

Appendix 6 - Kerbside rubbish - Composition - Nov. 2022

Hamilton City Council - Kerbside rubbish - November 2022 (margins of error for 95% confidence level)		% of total weight	Kg per rubbish wheelie bin	Tonnes/week
Paper	Recyclable paper	6.5% (±0.8%)	0.54 kg (±0.07 kg)	18.0 T/week
	Non-recyclable paper	3.1% (±0.2%)	0.26 kg (±0.01 kg)	8.5 T/week
	Subtotal	**9.6% (±0.8%)**	**0.80 kg (±0.07 kg)**	**26.5 T/week**
Plastics	# 1 & 2 bottles & containers	2.1% (±0.3%)	0.17 kg (±0.02 kg)	5.7 T/week
	# 3-7 bottles & containers	1.3% (±0.1%)	0.11 kg (±0.01 kg)	3.6 T/week
	Plastic bags & film	7.0% (±0.3%)	0.58 kg (±0.03 kg)	19.4 T/week
	Other non-recyclable plastic	3.8% (±0.5%)	0.31 kg (±0.04 kg)	10.5 T/week
	Subtotal	**14.2% (±0.8%)**	**1.17 kg (±0.06 kg)**	**39.1 T/week**
Organics	Kitchen waste	32.2% (±2.4%)	2.66 kg (±0.20 kg)	88.7 T/week
	Other compostable	1.4% (±0.4%)	0.12 kg (±0.03 kg)	3.9 T/week
	Greenwaste	6.6% (±2.0%)	0.54 kg (±0.17 kg)	18.1 T/week
	Organic other	2.4% (±0.6%)	0.20 kg (±0.05 kg)	6.7 T/week
	Subtotal	**42.6% (±3.1%)**	**3.52 kg (±0.26 kg)**	**117.4 T/week**
Ferrous metals	Steel cans	1.1% (±0.2%)	0.09 kg (±0.01 kg)	2.9 T/week
	Other steel	1.3% (±0.4%)	0.11 kg (±0.03 kg)	3.6 T/week
	Subtotal	**2.4% (±0.5%)**	**0.20 kg (±0.04 kg)**	**6.6 T/week**
Non ferrous metals	Aluminium cans	0.8% (±0.1%)	0.06 kg (±0.01 kg)	2.1 T/week
	Other non-ferrous	0.6% (±0.1%)	0.05 kg (±0.01 kg)	1.7 T/week
	Subtotal	**1.4% (±0.2%)**	**0.11 kg (±0.01 kg)**	**3.8 T/week**
Glass	Recyclable glass	1.4% (±0.3%)	0.12 kg (±0.03 kg)	3.8 T/week
	Non-recyclable glass	0.6% (±0.2%)	0.05 kg (±0.02 kg)	1.6 T/week
	Subtotal	**2.0% (±0.4%)**	**0.16 kg (±0.03 kg)**	5.4 T/week
Textiles	Clothing/textiles	4.1% (±0.8%)	0.34 kg (±0.06 kg)	11.4 T/week
	Other textiles	3.2% (±0.6%)	0.27 kg (±0.05 kg)	8.9 T/week
	Subtotal	**7.3% (±1.1%)**	**0.61 kg (±0.09 kg)**	20.3 T/week
Sanitary paper		**13.7% (±1.6%)**	**1.14 kg (±0.13 kg)**	**37.9 T/week**
Rubble		**2.8% (±1.4%)**	**0.23 kg (±0.12 kg)**	**7.6 T/week**
Timber		**2.1% (±0.7%)**	**0.17 kg (±0.06 kg)**	**5.8 T/week**
Rubber		**0.6% (±0.1%)**	**0.05 kg (±0.01 kg)**	**1.5 T/week**
Potentially hazardous	Household	1.3% (±0.2%)	0.10 kg (±0.02 kg)	3.5 T/week
	Other	0.1% (±0.1%)	0.01 kg (±0.01 kg)	0.3 T/week
	Subtotal	**1.4% (±0.2%)**	**0.11 kg (±0.02 kg)**	**3.8 T/week**
TOTAL		**100.0%**	**8.27 kg (±0.43 kg)**	**275.6 T/week**

Appendix 7 - Kerbside rubbish diversion potential - June & November 2022

Hamilton City Council Kerbside rubbish wheelie bins Diversion potential - June 2022	% of total	Weight per bin	Tonnes per week
RECYCLABLE MATERIALS			
Paper Recyclable	5.6%	0.46 kg	18 T/week
Plastics #1,2,5 bottles & containers	1.9%	0.15 kg	6 T/week
Plastics # 3,4,6,7 bottles & containers	1.0%	0.08 kg	3 T/week
Steel cans	1.1%	0.09 kg	3 T/week
Aluminium cans	0.6%	0.05 kg	2 T/week
Recyclable glass	1.5%	0.12 kg	5 T/week
Subtotal	**11.6%**	**0.94 kg**	**37 T/week**
COMPOSTABLE MATERIALS			
Organics - Kitchen waste	36.1%	2.92 kg	116 T/week
Organics - Other compostable	1.6%	0.13 kg	5 T/week
Organics - Greenwaste	6.1%	0.49 kg	19 T/week
Subtotal	**43.8%**	**3.54 kg**	**140 T/week**
TOTAL DIVERTABLE MATERIALS	**55.5%**	**4.48 kg**	**177 T/week**
NON-DIVERTABLE MATERIALS	**44.5%**	**3.60 kg**	**142 T/week**

Hamilton City Council Kerbside rubbish wheelie bins Diversion potential - November 2022	% of total	Weight per bin	Tonnes per week
RECYCLABLE MATERIALS			
Paper Recyclable	6.5%	0.54 kg	18 T/week
Plastics #1,2,5 bottles & containers	2.1%	0.17 kg	6 T/week
Plastics # 3,4,6,7 bottles & containers	1.3%	0.11 kg	4 T/week
Steel cans	1.1%	0.09 kg	3 T/week
Aluminium cans	0.8%	0.06 kg	2 T/week
Recyclable glass	1.4%	0.12 kg	4 T/week
Subtotal	**13.1%**	**1.08 kg**	**36 T/week**
COMPOSTABLE MATERIALS			
Organics - Kitchen waste	32.2%	2.66 kg	89 T/week
Organics - Other compostable	1.4%	0.12 kg	4 T/week
Organics - Greenwaste	6.6%	0.54 kg	18 T/week
Subtotal	**40.2%**	**3.32 kg**	**111 T/week**
TOTAL DIVERTABLE MATERIALS	**53.3%**	**4.41 kg**	**147 T/week**
NON-DIVERTABLE MATERIALS	**46.7%**	**3.86 kg**	**129 T/week**

Appendix 8 - Lincoln St RRC - Activity sources of waste - May & October 2022

Activity sources of waste loads at Lincoln St RRC - May 2022	% of loads surveyed	% of total weight	Tonnes/ week
Construction & demolition	22%	33%	199 T/week
Industrial/commercial/institutional	24%	26%	155 T/week
Landscaping & earthworks	9%	11%	64 T/week
Residential	39%	21%	128 T/week
Subtotal - general waste	**95%**	**91%**	**546 T/week**
Kerbside rubbish	0%	0%	0 T/week
Special waste (road sweepings)	5%	9%	56 T/week
TOTAL	**100%**	**100%**	**602 T/week**

Activity sources of waste loads at Lincoln St RRC - October 2022	% of loads surveyed	% of total weight	Tonnes/ week
Construction & demolition	29%	41%	266 T/week
Industrial/commercial/institutional	19%	29%	189 T/week
Landscaping & earthworks	6%	9%	57 T/week
Residential	45%	17%	106 T/week
Subtotal - general waste	**99%**	**96%**	**618 T/week**
Kerbside rubbish	0%	0%	0 T/week
Special waste (road sweepings)	1%	4%	24 T/week
TOTAL	**100%**	**100%**	**642 T/week**

Appendix 9 - Lincoln St RRC - Composition - May 2022

Lincoln St RRC General and overall waste streams - May 2022		General waste (excludes special waste)		Overall waste (includes special waste)	
		% of total	Tonnes per week	% of total	Tonnes per week
Paper	Recyclable	1.0%	6 T/week	0.9%	6 T/week
	Cardboard	4.2%	23 T/week	3.8%	23 T/week
	Non-recyclable	0.9%	5 T/week	0.9%	5 T/week
	Subtotal	**6.2%**	**34 T/week**	**5.6%**	**34 T/week**
Plastics	Recyclable	0.2%	1 T/week	0.2%	1 T/week
	Non-recyclable	9.3%	51 T/week	8.5%	51 T/week
	Subtotal	**9.5%**	**52 T/week**	**8.7%**	**52 T/week**
Organics	Food waste	2.6%	14 T/week	2.4%	14 T/week
	Compostable greenwaste	6.5%	36 T/week	5.9%	36 T/week
	Non-compostable greenwaste	0.8%	4 T/week	0.7%	4 T/week
	Organics other	1.4%	8 T/week	1.3%	8 T/week
	Subtotal	**11.3%**	**62 T/week**	**10.3%**	**62 T/week**
Ferrous	Primarily ferrous	1.2%	7 T/week	1.1%	7 T/week
metals	Steel other	1.4%	7 T/week	1.2%	7 T/week
	Subtotal	**2.6%**	**14 T/week**	**2.3%**	**14 T/week**
Non-ferrous metals		**0.2%**	**1 T/week**	**0.2%**	**1 T/week**
Glass	Recyclable	0.4%	2 T/week	0.4%	2 T/week
	Glass other	0.6%	3 T/week	0.6%	3 T/week
	Subtotal	**1.0%**	**5 T/week**	**0.9%**	**5 T/week**
Textiles	Clothing/textiles	2.7%	15 T/week	2.5%	15 T/week
	Multimaterial/other	7.9%	43 T/week	7.2%	43 T/week
	Subtotal	**10.6%**	**58 T/week**	**9.6%**	**58 T/week**
Sanitary paper		**0.7%**	**4 T/week**	**0.6%**	**4 T/week**
Rubble	Cleanfill	4.6%	25 T/week	4.2%	25 T/week
	New plasterboard	2.7%	15 T/week	2.5%	15 T/week
	Other	15.7%	86 T/week	14.3%	86 T/week
	Subtotal	**23.1%**	**126 T/week**	**20.9%**	**126 T/week**
Timber	Reusable	0.6%	3 T/week	0.6%	3 T/week
	Unpainted & untreated	2.6%	14 T/week	2.3%	14 T/week
	Non-recoverable	31.0%	169 T/week	28.1%	169 T/week
	Subtotal	**34.2%**	**187 T/week**	**31.0%**	**187 T/week**
Rubber		**0.5%**	**2 T/week**	**0.4%**	**2 T/week**
Potentially hazardous		**0.1%**	**1 T/week**	**9.4%**	**57 T/week**
TOTAL		**100.0%**	**546 T/week**	**100.0%**	**602 T/week**

Appendix 10 - Lincoln St RRC - Composition - October 2022

Lincoln St RRC General and overall waste streams - October 2022		General waste (excludes special waste)		Overall waste (includes special waste)	
		% of total	Tonnes per week	% of total	Tonnes per week
Paper	Recyclable	1.2%	8 T/week	1.2%	8 T/week
	Cardboard	4.7%	29 T/week	4.5%	29 T/week
	Non-recyclable	1.1%	7 T/week	1.0%	7 T/week
	Subtotal	**7.0%**	**43 T/week**	**6.7%**	**43 T/week**
Plastics	Recyclable	0.3%	2 T/week	0.3%	2 T/week
	Non-recyclable	8.4%	52 T/week	8.1%	52 T/week
	Subtotal	**8.7%**	**54 T/week**	**8.4%**	**54 T/week**
Organics	Food waste	4.0%	25 T/week	3.9%	25 T/week
	Compostable greenwaste	5.0%	31 T/week	4.9%	31 T/week
	Non-compostable greenwaste	0.5%	3 T/week	0.5%	3 T/week
	Organics other	0.1%	1 T/week	0.1%	1 T/week
	Subtotal	**9.7%**	**60 T/week**	**9.4%**	**60 T/week**
Ferrous metals	Primarily ferrous	1.6%	10 T/week	1.6%	10 T/week
	Steel other	1.1%	7 T/week	1.1%	7 T/week
	Subtotal	**2.8%**	**17 T/week**	**2.7%**	**17 T/week**
Non-ferrous metals		**0.2%**	**1 T/week**	**0.2%**	**1 T/week**
Glass	Recyclable	0.4%	3 T/week	0.4%	3 T/week
	Glass other	0.7%	4 T/week	0.6%	4 T/week
	Subtotal	**1.1%**	**7 T/week**	**1.1%**	**7 T/week**
Textiles	Clothing/textiles	1.3%	8 T/week	1.3%	8 T/week
	Multimaterial/other	5.4%	33 T/week	5.2%	33 T/week
	Subtotal	**6.7%**	**41 T/week**	**6.5%**	**41 T/week**
Sanitary paper		**1.1%**	**7 T/week**	**1.0%**	**7 T/week**
Rubble	Cleanfill	5.6%	34 T/week	5.4%	34 T/week
	New plasterboard	3.3%	20 T/week	3.1%	20 T/week
	Other	15.5%	96 T/week	14.9%	96 T/week
	Subtotal	**24.3%**	**150 T/week**	**23.4%**	**150 T/week**
Timber	Reusable	0.9%	6 T/week	0.9%	6 T/week
	Unpainted & untreated	6.8%	42 T/week	6.5%	42 T/week
	Non-recoverable	28.7%	177 T/week	27.6%	177 T/week
	Subtotal	**36.4%**	**225 T/week**	**35.0%**	**225 T/week**
Rubber		**1.8%**	**11 T/week**	**1.8%**	**11 T/week**
Potentially hazardous		**0.1%**	**1 T/week**	**3.9%**	**25 T/week**
TOTAL		**100.0%**	**618 T/week**	**100.0%**	**642 T/week**

Appendix 11 - Lincoln St RRC - Composition by activity source - 2022

Lincoln St RRC - General waste stream - By activity source - Both 2022 surveys combined		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0.1%	1.9%	0.1%	2.6%
	Cardboard	2.5%	7.5%	0.5%	5.9%
	Non-recyclable	0.7%	2.1%	0.0%	0.6%
	Subtotal	**3.2%**	**11.6%**	**0.7%**	**9.1%**
Plastics	Recyclable	0.0%	0.6%	0.0%	0.3%
	Non-recyclable	3.3%	18.6%	0.8%	9.8%
	Subtotal	**3.3%**	**19.2%**	**0.8%**	**10.2%**
Organics	Food waste	0.0%	7.0%	0.3%	6.2%
	Compostable greenwaste	0.6%	2.1%	36.9%	5.1%
	Non-compostable greenwaste	0.1%	0.1%	4.6%	0.4%
	Organics other	0.0%	2.2%	0.0%	0.4%
	Subtotal	**0.7%**	**11.4%**	**41.9%**	**12.1%**
Ferrous metals	Primarily ferrous	1.2%	1.8%	0.2%	1.9%
	Steel other	0.3%	1.2%	0.4%	3.8%
	Subtotal	**1.5%**	**3.0%**	**0.6%**	**5.7%**
Non-ferrous metals		**0.0%**	**0.4%**	**0.0%**	**0.4%**
Glass	Recyclable	0.0%	1.0%	0.1%	0.4%
	Glass other	1.0%	0.4%	0.0%	0.8%
	Subtotal	**1.0%**	**1.4%**	**0.1%**	**1.2%**
Textiles	Clothing/textiles	0.1%	3.7%	0.1%	4.1%
	Multimaterial/other	1.2%	6.9%	0.9%	19.7%
	Subtotal	**1.3%**	**10.7%**	**1.0%**	**23.8%**
Sanitary paper		**0.0%**	**1.6%**	**0.1%**	**1.9%**
Rubble	Cleanfill	7.5%	0.2%	17.1%	1.2%
	New plasterboard	7.3%	0.3%	0.0%	0.1%
	Other	23.1%	10.1%	23.2%	4.9%
	Subtotal	**37.9%**	**10.6%**	**40.3%**	**6.3%**
Timber	Reusable	1.6%	0.2%	0.0%	0.3%
	Unpainted & untreated	4.4%	9.8%	0.1%	0.9%
	Non-recoverable	45.1%	19.0%	6.7%	27.2%
	Subtotal	**51.1%**	**29.0%**	**6.9%**	**28.4%**
Rubber		**0.0%**	**0.9%**	**7.7%**	**0.7%**
Potentially hazardous		**0.0%**	**0.2%**	**0.0%**	**0.4%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**233 T/week**	**172 T/week**	**61 T/week**	**117 T/week**

Lincoln St RRC - General waste stream - By activity source - Both 2022 surveys combined		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0 T/week	3 T/week	0 T/week	3 T/week
	Cardboard	6 T/week	13 T/week	0 T/week	7 T/week
	Non-recyclable	2 T/week	4 T/week	0 T/week	1 T/week
	Subtotal	**8 T/week**	**20 T/week**	**0 T/week**	**11 T/week**
Plastics	Recyclable	0 T/week	1 T/week	0 T/week	0 T/week
	Non-recyclable	8 T/week	32 T/week	0 T/week	12 T/week
	Subtotal	**8 T/week**	**33 T/week**	**0 T/week**	**12 T/week**
Organics	Food waste	0 T/week	12 T/week	0 T/week	7 T/week
	Compostable greenwaste	1 T/week	4 T/week	22 T/week	6 T/week
	Non-compostable greenwaste	0 T/week	0 T/week	3 T/week	0 T/week
	Organics other	0 T/week	4 T/week	0 T/week	1 T/week
	Subtotal	**2 T/week**	**20 T/week**	**25 T/week**	**14 T/week**
Ferrous metals	Primarily ferrous	3 T/week	3 T/week	0 T/week	2 T/week
	Steel other	1 T/week	2 T/week	0 T/week	4 T/week
	Subtotal	**3 T/week**	**5 T/week**	**0 T/week**	**7 T/week**
Non-ferrous metals		**0 T/week**	**1 T/week**	**0 T/week**	**0 T/week**
Glass	Recyclable	0 T/week	2 T/week	0 T/week	1 T/week
	Glass other	2 T/week	1 T/week	0 T/week	1 T/week
	Subtotal	**2 T/week**	**2 T/week**	**0 T/week**	**1 T/week**
Textiles	Clothing/textiles	0 T/week	6 T/week	0 T/week	5 T/week
	Multimaterial/other	3 T/week	12 T/week	1 T/week	23 T/week
	Subtotal	**3 T/week**	**18 T/week**	**1 T/week**	**28 T/week**
Sanitary paper		**0 T/week**	**3 T/week**	**0 T/week**	**2 T/week**
Rubble	Cleanfill	17 T/week	0 T/week	10 T/week	1 T/week
	New plasterboard	17 T/week	1 T/week	0 T/week	0 T/week
	Other	54 T/week	17 T/week	14 T/week	6 T/week
	Subtotal	**88 T/week**	**18 T/week**	**24 T/week**	**7 T/week**
Timber	Reusable	4 T/week	0 T/week	0 T/week	0 T/week
	Unpainted & untreated	10 T/week	17 T/week	0 T/week	1 T/week
	Non-recoverable	105 T/week	33 T/week	4 T/week	32 T/week
	Subtotal	**119 T/week**	**50 T/week**	**4 T/week**	**33 T/week**
Rubber		**0 T/week**	**1 T/week**	**5 T/week**	**1 T/week**
Potentially hazardous		**0 T/week**	**0 T/week**	**0 T/week**	**0 T/week**
TOTAL		**233 T/week**	**172 T/week**	**61 T/week**	**117 T/week**

Appendix 12 - Lincoln St RRC - Composition by activity source - May 2022

Lincoln St RRC - General waste stream - By activity source - May 2022		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0.0%	1.7%	0.2%	2.3%
	Cardboard	2.3%	7.4%	0.9%	5.0%
	Non-recyclable	0.6%	2.2%	0.1%	0.5%
	Subtotal	**2.8%**	**11.4%**	**1.1%**	**7.8%**
Plastics	Recyclable	0.0%	0.5%	0.0%	0.3%
	Non-recyclable	3.2%	21.1%	1.0%	8.7%
	Subtotal	**3.3%**	**21.6%**	**1.0%**	**9.0%**
Organics	Food waste	0.0%	5.5%	0.5%	4.1%
	Compostable greenwaste	0.6%	1.8%	37.2%	6.0%
	Non-compostable greenwaste	0.0%	0.0%	6.2%	0.2%
	Organics other	0.0%	4.8%	0.0%	0.2%
	Subtotal	**0.6%**	**12.2%**	**44.0%**	**10.5%**
Ferrous metals	Primarily ferrous	1.0%	1.6%	0.1%	1.7%
	Steel other	0.1%	1.4%	0.5%	3.7%
	Subtotal	**1.1%**	**3.0%**	**0.6%**	**5.3%**
Non-ferrous metals		**0.1%**	**0.5%**	**0.0%**	**0.3%**
Glass	Recyclable	0.0%	1.0%	0.2%	0.3%
	Glass other	0.7%	0.8%	0.0%	0.5%
	Subtotal	**0.7%**	**1.8%**	**0.2%**	**0.8%**
Textiles	Clothing/textiles	0.0%	5.8%	0.2%	4.3%
	Multimaterial/other	1.4%	7.5%	1.1%	22.0%
	Subtotal	**1.4%**	**13.4%**	**1.3%**	**26.3%**
Sanitary paper		**0.0%**	**1.3%**	**0.1%**	**1.2%**
Rubble	Cleanfill	10.0%	0.0%	3.7%	2.0%
	New plasterboard	6.9%	0.6%	0.0%	0.1%
	Other	21.5%	6.9%	42.3%	4.2%
	Subtotal	**38.5%**	**7.5%**	**46.0%**	**6.4%**
Timber	Reusable	1.4%	0.1%	0.0%	0.3%
	Unpainted & untreated	1.4%	6.2%	0.2%	1.1%
	Non-recoverable	48.7%	19.7%	5.5%	29.9%
	Subtotal	**51.5%**	**26.1%**	**5.7%**	**31.3%**
Rubber		**0.0%**	**1.0%**	**0.0%**	**0.7%**
Potentially hazardous		**0.0%**	**0.2%**	**0.0%**	**0.3%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**199 T/week**	**155 T/week**	**64 T/week**	**128 T/week**

Lincoln St RRC - General waste stream - By activity source - May 2022		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0 T/week	3 T/week	0 T/week	3 T/week
	Cardboard	5 T/week	11 T/week	1 T/week	6 T/week
	Non-recyclable	1 T/week	3 T/week	0 T/week	1 T/week
	Subtotal	**6 T/week**	**18 T/week**	**1 T/week**	**10 T/week**
Plastics	Recyclable	0 T/week	1 T/week	0 T/week	0 T/week
	Non-recyclable	6 T/week	33 T/week	1 T/week	11 T/week
	Subtotal	**7 T/week**	**33 T/week**	**1 T/week**	**12 T/week**
Organics	Food waste	0 T/week	9 T/week	0 T/week	5 T/week
	Compostable greenwaste	1 T/week	3 T/week	24 T/week	8 T/week
	Non-compostable greenwaste	0 T/week	0 T/week	4 T/week	0 T/week
	Organics other	0 T/week	7 T/week	0 T/week	0 T/week
	Subtotal	**1 T/week**	**19 T/week**	**28 T/week**	**13 T/week**
Ferrous metals	Primarily ferrous	2 T/week	2 T/week	0 T/week	2 T/week
	Steel other	0 T/week	2 T/week	0 T/week	5 T/week
	Subtotal	**2 T/week**	**5 T/week**	**0 T/week**	**7 T/week**
Non-ferrous metals		**0 T/week**	**1 T/week**	**0 T/week**	**0 T/week**
Glass	Recyclable	0 T/week	2 T/week	0 T/week	0 T/week
	Glass other	1 T/week	1 T/week	0 T/week	1 T/week
	Subtotal	**1 T/week**	**3 T/week**	**0 T/week**	**1 T/week**
Textiles	Clothing/textiles	0 T/week	9 T/week	0 T/week	6 T/week
	Multimaterial/other	3 T/week	12 T/week	1 T/week	28 T/week
	Subtotal	**3 T/week**	**21 T/week**	**1 T/week**	**34 T/week**
Sanitary paper		**0 T/week**	**2 T/week**	**0 T/week**	**2 T/week**
Rubble	Cleanfill	20 T/week	0 T/week	2 T/week	3 T/week
	New plasterboard	14 T/week	1 T/week	0 T/week	0 T/week
	Other	43 T/week	11 T/week	27 T/week	5 T/week
	Subtotal	**77 T/week**	**12 T/week**	**30 T/week**	**8 T/week**
Timber	Reusable	3 T/week	0 T/week	0 T/week	0 T/week
	Unpainted & untreated	3 T/week	10 T/week	0 T/week	1 T/week
	Non-recoverable	97 T/week	31 T/week	4 T/week	38 T/week
	Subtotal	**103 T/week**	**40 T/week**	**4 T/week**	**40 T/week**
Rubber		**0 T/week**	**2 T/week**	**0 T/week**	**1 T/week**
Potentially hazardous		**0 T/week**	**0 T/week**	**0 T/week**	**0 T/week**
TOTAL		**199 T/week**	**155 T/week**	**64 T/week**	**128 T/week**

Appendix 13 - Lincoln St RRC - Composition by activity source - October 2022

Lincoln St RRC - General waste stream - By activity source - October 2022		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0.1%	2.1%	0.1%	3.1%
	Cardboard	2.7%	7.7%	0.1%	7.0%
	Non-recyclable	0.7%	2.1%	0.0%	0.7%
	Subtotal	**3.5%**	**11.8%**	**0.2%**	**10.8%**
Plastics	Recyclable	0.0%	0.7%	0.0%	0.4%
	Non-recyclable	3.3%	16.5%	0.5%	11.2%
	Subtotal	**3.3%**	**17.2%**	**0.6%**	**11.6%**
Organics	Food waste	0.0%	8.3%	0.2%	8.7%
	Compostable greenwaste	0.6%	2.3%	36.5%	4.0%
	Non-compostable greenwaste	0.1%	0.2%	2.8%	0.6%
	Organics other	0.0%	0.1%	0.0%	0.7%
	Subtotal	**0.8%**	**10.8%**	**39.5%**	**14.0%**
Ferrous metals	Primarily ferrous	1.4%	2.0%	0.3%	2.3%
	Steel other	0.4%	1.0%	0.3%	3.8%
	Subtotal	**1.8%**	**3.0%**	**0.6%**	**6.1%**
Non-ferrous metals		**0.0%**	**0.3%**	**0.0%**	**0.5%**
Glass	Recyclable	0.0%	1.1%	0.0%	0.6%
	Glass other	1.1%	0.0%	0.0%	1.0%
	Subtotal	**1.1%**	**1.1%**	**0.0%**	**1.6%**
Textiles	Clothing/textiles	0.1%	2.0%	0.0%	3.8%
	Multimaterial/other	1.0%	6.4%	0.6%	17.0%
	Subtotal	**1.2%**	**8.4%**	**0.6%**	**20.8%**
Sanitary paper		**0.0%**	**1.9%**	**0.1%**	**2.7%**
Rubble	Cleanfill	5.6%	0.4%	32.1%	0.3%
	New plasterboard	7.5%	0.0%	0.0%	0.1%
	Other	24.3%	12.8%	1.9%	5.8%
	Subtotal	**37.4%**	**13.2%**	**34.0%**	**6.2%**
Timber	Reusable	1.8%	0.3%	0.0%	0.2%
	Unpainted & untreated	6.6%	12.6%	0.0%	0.6%
	Non-recoverable	42.3%	18.5%	8.1%	23.9%
	Subtotal	**50.7%**	**31.4%**	**8.1%**	**24.8%**
Rubber		**0.0%**	**0.7%**	**16.3%**	**0.6%**
Potentially hazardous		**0.0%**	**0.1%**	**0.0%**	**0.4%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**266 T/week**	**189 T/week**	**57 T/week**	**106 T/week**

Lincoln St RRC - General waste stream - By activity source - October 2022		C&D	ICI	Landscaping	Residential
Paper	Recyclable	0 T/week	4 T/week	0 T/week	3 T/week
	Cardboard	7 T/week	14 T/week	0 T/week	7 T/week
	Non-recyclable	2 T/week	4 T/week	0 T/week	1 T/week
	Subtotal	**9 T/week**	**22 T/week**	**0 T/week**	**11 T/week**
Plastics	Recyclable	0 T/week	1 T/week	0 T/week	0 T/week
	Non-recyclable	9 T/week	31 T/week	0 T/week	12 T/week
	Subtotal	**9 T/week**	**32 T/week**	**0 T/week**	**12 T/week**
Organics	Food waste	0 T/week	16 T/week	0 T/week	9 T/week
	Compostable greenwaste	2 T/week	4 T/week	21 T/week	4 T/week
	Non-compostable greenwaste	0 T/week	0 T/week	2 T/week	1 T/week
	Organics other	0 T/week	0 T/week	0 T/week	1 T/week
	Subtotal	**2 T/week**	**20 T/week**	**23 T/week**	**15 T/week**
Ferrous metals	Primarily ferrous	4 T/week	4 T/week	0 T/week	2 T/week
	Steel other	1 T/week	2 T/week	0 T/week	4 T/week
	Subtotal	**5 T/week**	**6 T/week**	**0 T/week**	**6 T/week**
Non-ferrous metals		**0 T/week**	**1 T/week**	**0 T/week**	**1 T/week**
Glass	Recyclable	0 T/week	2 T/week	0 T/week	1 T/week
	Glass other	3 T/week	0 T/week	0 T/week	1 T/week
	Subtotal	**3 T/week**	**2 T/week**	**0 T/week**	**2 T/week**
Textiles	Clothing/textiles	0 T/week	4 T/week	0 T/week	4 T/week
	Multimaterial/other	3 T/week	12 T/week	0 T/week	18 T/week
	Subtotal	**3 T/week**	**16 T/week**	**0 T/week**	**22 T/week**
Sanitary paper		**0 T/week**	**4 T/week**	**0 T/week**	**3 T/week**
Rubble	Cleanfill	15 T/week	1 T/week	18 T/week	0 T/week
	New plasterboard	20 T/week	0 T/week	0 T/week	0 T/week
	Other	65 T/week	24 T/week	1 T/week	6 T/week
	Subtotal	**100 T/week**	**25 T/week**	**19 T/week**	**7 T/week**
Timber	Reusable	5 T/week	1 T/week	0 T/week	0 T/week
	Unpainted & untreated	17 T/week	24 T/week	0 T/week	1 T/week
	Non-recoverable	113 T/week	35 T/week	5 T/week	25 T/week
	Subtotal	**135 T/week**	**59 T/week**	**5 T/week**	**26 T/week**
Rubber		**0 T/week**	**1 T/week**	**9 T/week**	**1 T/week**
Potentially hazardous		**0 T/week**	**0 T/week**	**0 T/week**	**0 T/week**
TOTAL		**266 T/week**	**189 T/week**	**57 T/week**	**106 T/week**

Appendix 14 - Lincoln St RRC - By vehicle type - May & October 2022

Overall waste - By vehicle type Lincoln St RRC - May 2022	% of loads surveyed	% of weight	Tonnes/ week
Car-sized loads	14%	3%	20 T/week
Compactors	1%	1%	8 T/week
Front-loaders	0%	0%	2 T/week
Gantry trucks	12%	24%	145 T/week
Hook trucks	0%	5%	30 T/week
Other trucks	11%	19%	113 T/week
Trailer-sized loads	62%	47%	284 T/week
TOTAL	**100.0%**	**100.0%**	**602 T/week**

Overall waste - By vehicle type Lincoln St RRC - October 2022	% of loads surveyed	% of weight	Tonnes/ week
Car-sized loads	24%	4%	25 T/week
Compactors	0%	3%	19 T/week
Front-loaders	0%	0%	0 T/week
Gantry trucks	14%	28%	178 T/week
Hook trucks	0%	4%	26 T/week
Other trucks	8%	14%	87 T/week
Trailer-sized loads	53%	48%	308 T/week
TOTAL	**100%**	**100.0%**	**642 T/week**

Appendix 15 - Lincoln St RRC - Composition by vehicle type - 2022

Lincoln St RRC - General waste - By vehicle type - Both 2022 surveys combined		Cars	Gantry trucks	Hook trucks	Other trucks	Trailers
Paper	Recyclable	6.1%	0.7%	1.1%	0.8%	1.1%
	Cardboard	5.8%	4.3%	8.0%	3.2%	4.3%
	Non-recyclable	1.1%	1.0%	0.0%	0.4%	1.0%
	Subtotal	**13.0%**	**6.0%**	**9.2%**	**4.4%**	**6.4%**
Plastics	Recyclable	0.6%	0.2%	0.0%	0.2%	0.1%
	Non-recyclable	12.7%	9.5%	16.1%	3.4%	8.2%
	Subtotal	**13.3%**	**9.8%**	**16.1%**	**3.6%**	**8.3%**
Organics	Food waste	20.1%	3.6%	0.0%	1.3%	1.9%
	Compostable greenwaste	7.3%	3.5%	0.0%	7.9%	8.5%
	Non-compostable greenwaste	1.0%	0.1%	0.0%	1.2%	1.1%
	Organics other	0.7%	1.5%	0.0%	0.1%	0.2%
	Subtotal	**29.1%**	**8.7%**	**0.0%**	**10.6%**	**11.8%**
Ferrous metals	Primarily ferrous	1.0%	2.2%	0.0%	0.5%	0.8%
	Steel other	2.0%	1.0%	1.1%	0.4%	1.7%
	Subtotal	**3.0%**	**3.2%**	**1.1%**	**1.0%**	**2.4%**
Non-ferrous metals		**0.6%**	**0.1%**	**0.0%**	**0.2%**	**0.3%**
Glass	Recyclable	1.0%	0.2%	0.0%	0.6%	0.3%
	Glass other	0.7%	0.2%	0.0%	0.4%	1.3%
	Subtotal	**1.7%**	**0.4%**	**0.0%**	**1.0%**	**1.6%**
Textiles	Clothing/textiles	6.9%	0.5%	0.0%	5.1%	1.7%
	Multimaterial/other	10.0%	3.5%	0.0%	4.3%	10.4%
	Subtotal	**16.9%**	**4.0%**	**0.0%**	**9.4%**	**12.2%**
Sanitary paper		**5.5%**	**0.5%**	**0.0%**	**0.6%**	**0.9%**
Rubble	Cleanfill	0.1%	5.4%	2.3%	3.7%	5.4%
	New plasterboard	0.0%	4.9%	0.0%	0.5%	1.8%
	Other	2.4%	17.0%	17.3%	16.9%	11.2%
	Subtotal	**2.5%**	**27.2%**	**19.6%**	**21.1%**	**18.4%**
Timber	Reusable	0.1%	1.2%	0.0%	0.2%	0.5%
	Unpainted & untreated	0.3%	7.3%	13.8%	1.6%	1.5%
	Non-recoverable	12.2%	31.2%	40.2%	9.7%	32.9%
	Subtotal	**12.6%**	**39.7%**	**54.0%**	**11.5%**	**34.9%**
Rubber		**1.1%**	**0.3%**	**0.0%**	**0.2%**	**2.8%**
Potentially hazardous		**0.7%**	**0.1%**	**0.0%**	**36.5%**	**0.2%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**22.6 T/week**	**161.3 T/week**	**27.9 T/week**	**100.0 T/week**	**296.1 T/week**

Lincoln St RRC - General waste - By vehicle type - Both 2022 surveys combined		Cars	Gantry trucks	Hook trucks	Other trucks	Trailers
Paper	Recyclable	1.4 T/week	1.2 T/week	0.3 T/week	0.8 T/week	3.2 T/week
	Cardboard	1.3 T/week	7.0 T/week	2.2 T/week	3.2 T/week	12.7 T/week
	Non-recyclable	0.2 T/week	1.6 T/week	0.0 T/week	0.4 T/week	3.1 T/week
	Subtotal	**2.9 T/week**	**9.7 T/week**	**2.6 T/week**	**4.4 T/week**	**19.0 T/week**
Plastics	Recyclable	0.1 T/week	0.4 T/week	0.0 T/week	0.2 T/week	0.4 T/week
	Non-recyclable	2.9 T/week	15.4 T/week	4.5 T/week	3.4 T/week	24.3 T/week
	Subtotal	**3.0 T/week**	**15.7 T/week**	**4.5 T/week**	**3.6 T/week**	**24.6 T/week**
Organics	Food waste	4.5 T/week	5.8 T/week	0.0 T/week	1.3 T/week	5.8 T/week
	Compostable greenwaste	1.6 T/week	5.6 T/week	0.0 T/week	7.9 T/week	25.3 T/week
	Non-compostable greenwaste	0.2 T/week	0.2 T/week	0.0 T/week	1.2 T/week	3.4 T/week
	Organics other	0.2 T/week	2.5 T/week	0.0 T/week	0.1 T/week	0.4 T/week
	Subtotal	**6.6 T/week**	**14.0 T/week**	**0.0 T/week**	**10.6 T/week**	**34.9 T/week**
Ferrous metals	Primarily ferrous	0.2 T/week	3.5 T/week	0.0 T/week	0.5 T/week	2.3 T/week
	Steel other	0.4 T/week	1.7 T/week	0.3 T/week	0.4 T/week	4.9 T/week
	Subtotal	**0.7 T/week**	**5.2 T/week**	**0.3 T/week**	**1.0 T/week**	**7.2 T/week**
Non-ferrous metals		**0.1 T/week**	**0.2 T/week**	**0.0 T/week**	**0.2 T/week**	**0.8 T/week**
Glass	Recyclable	0.2 T/week	0.4 T/week	0.0 T/week	0.6 T/week	0.8 T/week
	Glass other	0.2 T/week	0.3 T/week	0.0 T/week	0.4 T/week	3.9 T/week
	Subtotal	**0.4 T/week**	**0.7 T/week**	**0.0 T/week**	**1.0 T/week**	**4.7 T/week**
Textiles	Clothing/textiles	1.6 T/week	0.8 T/week	0.0 T/week	5.1 T/week	5.2 T/week
	Multimaterial/other	2.3 T/week	5.6 T/week	0.0 T/week	4.3 T/week	30.9 T/week
	Subtotal	**3.8 T/week**	**6.5 T/week**	**0.0 T/week**	**9.4 T/week**	**36.0 T/week**
Sanitary paper		**1.2 T/week**	**0.7 T/week**	**0.0 T/week**	**0.6 T/week**	**2.5 T/week**
Rubble	Cleanfill	0.0 T/week	8.6 T/week	0.6 T/week	3.7 T/week	16.0 T/week
	New plasterboard	0.0 T/week	7.8 T/week	0.0 T/week	0.5 T/week	5.2 T/week
	Other	0.5 T/week	27.5 T/week	4.8 T/week	16.9 T/week	33.2 T/week
	Subtotal	**0.6 T/week**	**43.9 T/week**	**5.5 T/week**	**21.1 T/week**	**54.4 T/week**
Timber	Reusable	0.0 T/week	1.9 T/week	0.0 T/week	0.2 T/week	1.5 T/week
	Unpainted & untreated	0.1 T/week	11.8 T/week	3.8 T/week	1.6 T/week	4.4 T/week
	Non-recoverable	2.8 T/week	50.3 T/week	11.2 T/week	9.7 T/week	97.3 T/week
	Subtotal	**2.8 T/week**	**64.0 T/week**	**15.1 T/week**	**11.5 T/week**	**103.2 T/week**
Rubber		**0.2 T/week**	**0.5 T/week**	**0.0 T/week**	**0.2 T/week**	**8.2 T/week**
Potentially hazardous		**0.2 T/week**	**0.1 T/week**	**0.0 T/week**	**36.5 T/week**	**0.6 T/week**
TOTAL		**22.6 T/week**	**161.3 T/week**	**27.9 T/week**	**100.0 T/week**	**296.1 T/week**

Appendix 16 - Lincoln St RRC - Composition by vehicle type - May 2022

Lincoln St RRC - General waste - By vehicle type - May 2022		Cars	Gantry trucks	Hook trucks	Other trucks	Trailers
Paper	Recyclable	5.8%	0.6%	2.1%	0.6%	1.0%
	Cardboard	7.2%	4.7%	10.6%	2.1%	3.6%
	Non-recyclable	1.2%	0.7%	0.0%	0.4%	1.2%
	Subtotal	**14.1%**	**6.0%**	**12.8%**	**3.1%**	**5.7%**
Plastics	Recyclable	0.4%	0.2%	0.0%	0.2%	0.1%
	Non-recyclable	10.0%	10.1%	21.3%	3.5%	9.4%
	Subtotal	**10.4%**	**10.2%**	**21.3%**	**3.7%**	**9.5%**
Organics	Food waste	15.2%	2.7%	0.0%	1.0%	1.6%
	Compostable greenwaste	6.3%	3.2%	0.0%	10.3%	11.1%
	Non-compostable greenwaste	1.4%	0.1%	0.0%	1.0%	1.7%
	Organics other	0.5%	3.4%	0.0%	0.0%	0.1%
	Subtotal	**23.5%**	**9.4%**	**0.0%**	**12.4%**	**14.5%**
Ferrous metals	Primarily ferrous	1.1%	2.1%	0.0%	0.2%	0.7%
	Steel other	2.7%	1.3%	2.1%	0.3%	1.6%
	Subtotal	**3.8%**	**3.4%**	**2.1%**	**0.5%**	**2.3%**
Non-ferrous metals		**0.4%**	**0.1%**	**0.0%**	**0.2%**	**0.3%**
Glass	Recyclable	0.6%	0.2%	0.0%	0.5%	0.3%
	Glass other	0.5%	0.2%	0.0%	0.6%	1.0%
	Subtotal	**1.1%**	**0.4%**	**0.0%**	**1.1%**	**1.2%**
Textiles	Clothing/textiles	13.1%	0.6%	0.0%	7.0%	1.5%
	Multimaterial/other	14.3%	4.5%	0.0%	5.6%	10.8%
	Subtotal	**27.4%**	**5.1%**	**0.0%**	**12.6%**	**12.3%**
Sanitary paper		**4.1%**	**0.2%**	**0.0%**	**0.5%**	**0.7%**
Rubble	Cleanfill	0.0%	7.4%	0.0%	0.0%	3.8%
	New plasterboard	0.0%	5.1%	0.0%	0.0%	1.6%
	Other	4.1%	14.9%	10.6%	27.2%	9.6%
	Subtotal	**4.2%**	**27.5%**	**10.6%**	**27.2%**	**15.0%**
Timber	Reusable	0.1%	1.0%	0.0%	0.3%	0.3%
	Unpainted & untreated	0.2%	4.8%	0.0%	1.4%	0.8%
	Non-recoverable	8.3%	31.6%	53.2%	10.6%	36.4%
	Subtotal	**8.6%**	**37.5%**	**53.2%**	**12.3%**	**37.6%**
Rubber		**1.5%**	**0.1%**	**0.0%**	**0.3%**	**0.7%**
Potentially hazardous		**0.8%**	**0.1%**	**0.0%**	**26.2%**	**0.1%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**20 T/week**	**145 T/week**	**30 T/week**	**113 T/week**	**284 T/week**

Lincoln St RRC - General waste - By vehicle type - May 2022		Car-sized loads	Gantry trucks	Hook trucks	Other trucks	Trailer-sized loads
Paper	Recyclable	1.2 T/week	0.8 T/week	0.6 T/week	0.7 T/week	2.7 T/week
	Cardboard	1.4 T/week	6.9 T/week	3.2 T/week	2.4 T/week	10.2 T/week
	Non-recyclable	0.2 T/week	1.0 T/week	0.0 T/week	0.4 T/week	3.4 T/week
	Subtotal	**2.9 T/week**	**8.7 T/week**	**3.8 T/week**	**3.5 T/week**	**16.3 T/week**
Plastics	Recyclable	0.1 T/week	0.2 T/week	0.0 T/week	0.2 T/week	0.4 T/week
	Non-recyclable	2.0 T/week	14.6 T/week	6.4 T/week	4.0 T/week	26.6 T/week
	Subtotal	**2.1 T/week**	**14.8 T/week**	**6.4 T/week**	**4.2 T/week**	**27.0 T/week**
Organics	Food waste	3.1 T/week	4.0 T/week	0.0 T/week	1.1 T/week	4.6 T/week
	Compostable greenwaste	1.3 T/week	4.7 T/week	0.0 T/week	11.7 T/week	31.5 T/week
	Non-compostable greenwaste	0.3 T/week	0.2 T/week	0.0 T/week	1.2 T/week	4.8 T/week
	Organics other	0.1 T/week	4.9 T/week	0.0 T/week	0.0 T/week	0.3 T/week
	Subtotal	**4.8 T/week**	**13.7 T/week**	**0.0 T/week**	**13.9 T/week**	**41.2 T/week**
Ferrous metals	Primarily ferrous	0.2 T/week	3.0 T/week	0.0 T/week	0.2 T/week	1.9 T/week
	Steel other	0.6 T/week	1.8 T/week	0.6 T/week	0.4 T/week	4.7 T/week
	Subtotal	**0.8 T/week**	**4.9 T/week**	**0.6 T/week**	**0.6 T/week**	**6.6 T/week**
Non-ferrous metals		**0.1 T/week**	**0.2 T/week**	**0.0 T/week**	**0.2 T/week**	**0.8 T/week**
Glass	Recyclable	0.1 T/week	0.3 T/week	0.0 T/week	0.5 T/week	0.7 T/week
	Glass other	0.1 T/week	0.3 T/week	0.0 T/week	0.7 T/week	2.8 T/week
	Subtotal	**0.2 T/week**	**0.5 T/week**	**0.0 T/week**	**1.2 T/week**	**3.5 T/week**
Textiles	Clothing/textiles	2.7 T/week	0.9 T/week	0.0 T/week	7.9 T/week	4.2 T/week
	Multimaterial/other	2.9 T/week	6.5 T/week	0.0 T/week	6.3 T/week	30.8 T/week
	Subtotal	**5.6 T/week**	**7.4 T/week**	**0.0 T/week**	**14.2 T/week**	**34.9 T/week**
Sanitary paper		**0.8 T/week**	**0.3 T/week**	**0.0 T/week**	**0.6 T/week**	**2.0 T/week**
Rubble	Cleanfill	0.0 T/week	10.7 T/week	0.0 T/week	0.0 T/week	10.9 T/week
	New plasterboard	0.0 T/week	7.4 T/week	0.0 T/week	0.0 T/week	4.6 T/week
	Other	0.8 T/week	21.6 T/week	3.2 T/week	30.6 T/week	27.2 T/week
	Subtotal	**0.9 T/week**	**39.8 T/week**	**3.2 T/week**	**30.6 T/week**	**42.7 T/week**
Timber	Reusable	0.0 T/week	1.5 T/week	0.0 T/week	0.4 T/week	0.9 T/week
	Unpainted & untreated	0.0 T/week	7.0 T/week	0.0 T/week	1.5 T/week	2.4 T/week
	Non-recoverable	1.7 T/week	45.8 T/week	16.0 T/week	12.0 T/week	103.5 T/week
	Subtotal	**1.7 T/week**	**54.3 T/week**	**16.0 T/week**	**13.9 T/week**	**106.7 T/week**
Rubber		**0.3 T/week**	**0.1 T/week**	**0.0 T/week**	**0.4 T/week**	**2.1 T/week**
Potentially hazardous		**0.2 T/week**	**0.2 T/week**	**0.0 T/week**	**29.5 T/week**	**0.4 T/week**
TOTAL		**20 T/week**	**145 T/week**	**30 T/week**	**113 T/week**	**284 T/week**

Appendix 17 - Lincoln St RRC - Composition by vehicle type - October 2022

Lincoln St RRC - General waste - By vehicle type - October 2022		Cars	Gantry trucks	Hook trucks	Other trucks	Trailers
Paper	Recyclable	6.4%	0.9%	0.0%	0.9%	1.2%
	Cardboard	4.6%	4.0%	5.0%	4.6%	4.9%
	Non-recyclable	1.0%	1.2%	0.0%	0.5%	0.9%
	Subtotal	**12.0%**	**6.0%**	**5.0%**	**6.1%**	**7.0%**
Plastics	Recyclable	0.7%	0.3%	0.0%	0.3%	0.1%
	Non-recyclable	14.9%	9.1%	10.0%	3.2%	7.1%
	Subtotal	**15.6%**	**9.4%**	**10.0%**	**3.5%**	**7.2%**
Organics	Food waste	24.1%	4.3%	0.0%	1.7%	2.2%
	Compostable greenwaste	8.0%	3.7%	0.0%	4.9%	6.2%
	Non-compostable greenwaste	0.7%	0.1%	0.0%	1.5%	0.7%
	Organics other	0.9%	0.1%	0.0%	0.2%	0.2%
	Subtotal	**33.6%**	**8.1%**	**0.0%**	**8.3%**	**9.3%**
Ferrous metals	Primarily ferrous	1.0%	2.2%	0.0%	1.0%	0.9%
	Steel other	1.4%	0.9%	0.0%	0.5%	1.7%
	Subtotal	**2.3%**	**3.1%**	**0.0%**	**1.5%**	**2.6%**
Non-ferrous metals		**0.7%**	**0.1%**	**0.0%**	**0.2%**	**0.2%**
Glass	Recyclable	1.3%	0.3%	0.0%	0.7%	0.3%
	Glass other	0.9%	0.2%	0.0%	0.1%	1.6%
	Subtotal	**2.2%**	**0.5%**	**0.0%**	**0.8%**	**1.9%**
Textiles	Clothing/textiles	1.8%	0.4%	0.0%	2.6%	2.0%
	Multimaterial/other	6.5%	2.7%	0.0%	2.6%	10.0%
	Subtotal	**8.4%**	**3.1%**	**0.0%**	**5.3%**	**12.0%**
Sanitary paper		**6.7%**	**0.7%**	**0.0%**	**0.8%**	**1.0%**
Rubble	Cleanfill	0.1%	3.7%	5.0%	8.4%	6.8%
	New plasterboard	0.0%	4.6%	0.0%	1.2%	1.9%
	Other	1.0%	18.8%	25.1%	3.6%	12.7%
	Subtotal	**1.1%**	**27.1%**	**30.1%**	**13.2%**	**21.4%**
Timber	Reusable	0.2%	1.3%	0.0%	0.0%	0.7%
	Unpainted & untreated	0.4%	9.4%	29.9%	1.8%	2.1%
	Non-recoverable	15.3%	30.8%	25.1%	8.6%	29.6%
	Subtotal	**15.9%**	**41.5%**	**54.9%**	**10.5%**	**32.4%**
Rubber		**0.8%**	**0.5%**	**0.0%**	**0.0%**	**4.6%**
Potentially hazardous		**0.7%**	**0.0%**	**0.0%**	**49.8%**	**0.2%**
TOTAL		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Tonnes per week		**25 T/week**	**178 T/week**	**26 T/week**	**87 T/week**	**308 T/week**

Lincoln St RRC - General waste - By vehicle type - October 2022		Cars	Gantry trucks	Hook trucks	Other trucks	Trailers
Paper	Recyclable	1.6 T/week	1.5 T/week	0.0 T/week	0.8 T/week	3.7 T/week
	Cardboard	1.2 T/week	7.1 T/week	1.3 T/week	4.0 T/week	15.2 T/week
	Non-recyclable	0.2 T/week	2.1 T/week	0.0 T/week	0.4 T/week	2.9 T/week
	Subtotal	**3.0 T/week**	**10.7 T/week**	**1.3 T/week**	**5.3 T/week**	**21.7 T/week**
Plastics	Recyclable	0.2 T/week	0.5 T/week	0.0 T/week	0.3 T/week	0.4 T/week
	Non-recyclable	3.7 T/week	16.1 T/week	2.6 T/week	2.8 T/week	21.9 T/week
	Subtotal	**3.9 T/week**	**16.6 T/week**	**2.6 T/week**	**3.0 T/week**	**22.3 T/week**
Organics	Food waste	6.0 T/week	7.6 T/week	0.0 T/week	1.5 T/week	6.9 T/week
	Compostable greenwaste	2.0 T/week	6.5 T/week	0.0 T/week	4.2 T/week	19.1 T/week
	Non-compostable greenwaste	0.2 T/week	0.2 T/week	0.0 T/week	1.3 T/week	2.0 T/week
	Organics other	0.2 T/week	0.1 T/week	0.0 T/week	0.2 T/week	0.5 T/week
	Subtotal	**8.4 T/week**	**14.4 T/week**	**0.0 T/week**	**7.2 T/week**	**28.6 T/week**
Ferrous metals	Primarily ferrous	0.2 T/week	3.9 T/week	0.0 T/week	0.9 T/week	2.7 T/week
	Steel other	0.3 T/week	1.5 T/week	0.0 T/week	0.5 T/week	5.2 T/week
	Subtotal	**0.6 T/week**	**5.4 T/week**	**0.0 T/week**	**1.3 T/week**	**7.9 T/week**
Non-ferrous metals		**0.2 T/week**	**0.2 T/week**	**0.0 T/week**	**0.2 T/week**	**0.7 T/week**
Glass	Recyclable	0.3 T/week	0.5 T/week	0.0 T/week	0.7 T/week	0.9 T/week
	Glass other	0.2 T/week	0.3 T/week	0.0 T/week	0.1 T/week	4.9 T/week
	Subtotal	**0.6 T/week**	**0.8 T/week**	**0.0 T/week**	**0.7 T/week**	**5.9 T/week**
Textiles	Clothing/textiles	0.5 T/week	0.8 T/week	0.0 T/week	2.3 T/week	6.2 T/week
	Multimaterial/other	1.6 T/week	4.8 T/week	0.0 T/week	2.3 T/week	30.9 T/week
	Subtotal	**2.1 T/week**	**5.6 T/week**	**0.0 T/week**	**4.6 T/week**	**37.1 T/week**
Sanitary paper		**1.7 T/week**	**1.2 T/week**	**0.0 T/week**	**0.7 T/week**	**3.1 T/week**
Rubble	Cleanfill	0.0 T/week	6.5 T/week	1.3 T/week	7.3 T/week	21.0 T/week
	New plasterboard	0.0 T/week	8.2 T/week	0.0 T/week	1.0 T/week	5.8 T/week
	Other	0.2 T/week	33.4 T/week	6.5 T/week	3.2 T/week	39.2 T/week
	Subtotal	**0.3 T/week**	**48.1 T/week**	**7.7 T/week**	**11.6 T/week**	**66.1 T/week**
Timber	Reusable	0.0 T/week	2.3 T/week	0.0 T/week	0.0 T/week	2.1 T/week
	Unpainted & untreated	0.1 T/week	16.7 T/week	7.7 T/week	1.6 T/week	6.5 T/week
	Non-recoverable	3.8 T/week	54.8 T/week	6.4 T/week	7.5 T/week	91.1 T/week
	Subtotal	**4.0 T/week**	**73.8 T/week**	**14.1 T/week**	**9.1 T/week**	**99.7 T/week**
Rubber		**0.2 T/week**	**0.8 T/week**	**0.0 T/week**	**0.0 T/week**	**14.3 T/week**
Potentially hazardous		**0.2 T/week**	**0.1 T/week**	**0.0 T/week**	**43.5 T/week**	**0.7 T/week**
TOTAL		**24.9 T/week**	**177.7 T/week**	**25.7 T/week**	**87.3 T/week**	**308.1 T/week**

Appendix 18 - Diversion potential - May & Oct 2022

Lincoln St RRC waste Diversion potential - October 2022	General waste (excludes special waste)		Overall waste (includes special waste)	
	% of total	T/week	% of total	T/week
Recyclable and recoverable materials				
Paper - Recyclable	1.2%	8 T/week	1.2%	8 T/week
Paper - Cardboard	4.7%	29 T/week	4.5%	29 T/week
Plastic - Recyclable	0.3%	2 T/week	0.3%	2 T/week
Ferrous metals	2.8%	17 T/week	2.7%	17 T/week
Non-ferrous metals	0.2%	1 T/week	0.2%	1 T/week
Glass - Recyclable	0.4%	3 T/week	0.4%	3 T/week
Textiles - Clothing	1.3%	8 T/week	1.3%	8 T/week
Rubble - Cleanfill	5.6%	34 T/week	5.4%	34 T/week
Timber - 80% of all timber	29.1%	180 T/week	28.0%	180 T/week
Subtotal	**45.7%**	**282 T/week**	**43.9%**	**282 T/week**
Compostable materials				
Organics - Food waste	4.0%	25 T/week	3.9%	25 T/week
Organics - Compostable greenwaste	5.0%	31 T/week	4.9%	31 T/week
Rubble - New plasterboard	3.3%	20 T/week	3.1%	20 T/week
Subtotal	**12.3%**	**76 T/week**	**11.9%**	**76 T/week**
TOTAL - Potentially divertable	**58.0%**	**359 T/week**	**55.8%**	**359 T/week**

Lincoln St RRC waste Diversion potential - May 2022	General waste (excludes special waste)		Overall waste (includes special waste)	
	% of total	T/week	% of total	T/week
Recyclable and recoverable materials				
Paper - Recyclable	1.0%	6 T/week	0.9%	6 T/week
Paper - Cardboard	4.2%	23 T/week	3.8%	23 T/week
Plastic - Recyclable	0.2%	1 T/week	0.2%	1 T/week
Ferrous metals	2.6%	14 T/week	2.3%	14 T/week
Non-ferrous metals	0.2%	1 T/week	0.2%	1 T/week
Glass - Recyclable	0.4%	2 T/week	0.4%	2 T/week
Textiles - Clothing	2.7%	15 T/week	2.5%	15 T/week
Rubble - Cleanfill	4.6%	25 T/week	4.2%	25 T/week
Timber - 80% of all timber	27.4%	149 T/week	24.8%	149 T/week
Subtotal	**43.3%**	**236 T/week**	**39.3%**	**236 T/week**
Compostable materials				
Organics - Food waste	2.6%	14 T/week	2.4%	14 T/week
Organics - Compostable greenwaste	6.5%	36 T/week	5.9%	36 T/week
Rubble - New plasterboard	2.7%	15 T/week	2.5%	15 T/week
Subtotal	**11.8%**	**65 T/week**	**10.7%**	**65 T/week**
TOTAL - Potentially divertable	**55.1%**	**301 T/week**	**50.0%**	**301 T/week**

Appendix 19 - Divertable materials - By activity source - May & October 2022

Lincoln St RRC waste - Divertable materials - By activity source - May 2022	Construction & demolition	Industrial/ commercial/ institutional	Landscaping & earthworks	Residential
Paper - Recyclable	0.0 T/week	2.7 T/week	0.1 T/week	2.9 T/week
Paper - Cardboard	4.5 T/week	11.5 T/week	0.5 T/week	6.5 T/week
Plastic - Recyclable	0.1 T/week	0.7 T/week	0.0 T/week	0.3 T/week
Ferrous metals	2.2 T/week	4.7 T/week	0.4 T/week	6.8 T/week
Non-ferrous metals	0.1 T/week	0.8 T/week	0.0 T/week	0.4 T/week
Glass - Recyclable	0.0 T/week	1.6 T/week	0.1 T/week	0.4 T/week
Textiles - Clothing	0.0 T/week	9.0 T/week	0.2 T/week	5.6 T/week
Rubble - Cleanfill	20.0 T/week	0.0 T/week	2.4 T/week	2.6 T/week
Timber - 80% of all timber	82.0 T/week	32.3 T/week	2.9 T/week	32.1 T/week
Food waste	0.0 T/week	8.6 T/week	0.3 T/week	5.2 T/week
Compostable greenwaste	1.1 T/week	2.8 T/week	23.9 T/week	7.7 T/week
New plasterboard	13.8 T/week	1.0 T/week	0.0 T/week	0.2 T/week
TOTAL	**124 T/week**	**76 T/week**	**31 T/week**	**71 T/week**

Lincoln St RRC waste - Divertable materials - By activity source - October 2022	Construction & demolition	Industrial/ commercial/ institutional	Landscaping & earthworks	Residential
Paper - Recyclable	0.2 T/week	4.0 T/week	0.0 T/week	3.3 T/week
Paper - Cardboard	7.2 T/week	14.4 T/week	0.1 T/week	7.5 T/week
Plastic - Recyclable	0.0 T/week	1.3 T/week	0.0 T/week	0.4 T/week
Ferrous metals	4.7 T/week	5.6 T/week	0.3 T/week	6.5 T/week
Non-ferrous metals	0.1 T/week	0.6 T/week	0.0 T/week	0.5 T/week
Glass - Recyclable	0.1 T/week	2.0 T/week	0.0 T/week	0.7 T/week
Textiles - Clothing	0.4 T/week	3.8 T/week	0.0 T/week	4.1 T/week
Rubble - Cleanfill	14.9 T/week	0.8 T/week	18.4 T/week	0.3 T/week
Timber - 80% of all timber	108.0 T/week	47.4 T/week	3.7 T/week	21.0 T/week
Food waste	0.1 T/week	15.6 T/week	0.1 T/week	9.2 T/week
Compostable greenwaste	1.7 T/week	4.3 T/week	20.9 T/week	4.2 T/week
New plasterboard	20.0 T/week	0.0 T/week	0.0 T/week	0.1 T/week
TOTAL	**157 T/week**	**100 T/week**	**44 T/week**	**58 T/week**