



CITY OF
MONASH

Monash Household Waste Audit 2020

City of Monash

Municipal Waste Streams Assessment

Solo
Resource
Recovery

This report was researched and prepared by

Solo Resource Recovery

For
City of Monash
293 Springvale Road
Glen Waverley, VIC 3150

Disclaimer

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This Report represents information obtained at the time the audit took place and is intended to provide a summary of such information observed and recorded.

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Executive Summary

Solo Resource Recovery (Solo) undertook an assessment of the City of Monash's (Council) household waste streams from the 9th – 20th November 2020. The assessment was used to investigate Council's rubbish, recycling and green waste streams.

As of July 2020, City of Monash changed their green waste stream to include food waste. This stream is now known as Food and Garden Waste in Council communications and future reports will now consider food and accepted compostable materials under this category as opposed to rubbish.

A total of 10.051 tonne (75.123m³) of materials was examined during the audit period. This revealed a generation rate of 24.526kg per household per week (Kg/hh/w) for combined rubbish, recycling and green waste in the Monash municipality. This is the equivalent of 175.043L per household per week (L/hh/w). The current diversion rate is 58.51% by mass (kg). Should all green waste (including packaged and not packaged food) and recyclable material be successfully segregated by households, we would see a total potential increase to a diversion of 81.88% from landfill.

The key statistical findings of the report based on the key performance indicators (KPI) for the kerbside materials are found below:

| Key Performance Indicator (Kg) | Rubbish | Recycling | Green Waste |
|--------------------------------|---------|-----------|-------------|
| Generation Rate (kg/hh/w) | 8.847 | 4.749 | 10.930 |
| Garden Organics (%) | 7.08% | 1.89% | 94.11% |
| Food Waste (%) | 42.15% | 1.15% | 4.01% |
| Recycling (%) | 11.70% | 79.30% | 0.52% |
| Other Materials (%) | 39.07% | 17.66% | 1.35% |

| Key Performance Indicator (L) | Rubbish | Recycling | Green Waste |
|-------------------------------|---------|-----------|-------------|
| Generation Rate (L/hh/w) | 49.594 | 53.490 | 71.959 |
| Garden Organics (%) | 8.42% | 1.12% | 95.30% |
| Food Waste (%) | 21.92% | 0.30% | 1.21% |
| Recycling (%) | 23.19% | 88.13% | 0.82% |
| Other Materials (%) | 46.47% | 10.45% | 2.68% |

Packaged food is not calculated into the Food Waste % for the Green Waste stream as it is a contaminant

| Key Performance Indicator (Kg/L) | Rubbish | Recycling | Green Waste |
|---|---------|-----------|-------------|
| Total Diversion Rate (Kg/%) | 58.51% | | |
| Resource Recovery/Diversion Rate (Kg/%) | N/A | 77.51% | 70.17% |
| Total Diversion Rate (L/%) | 64.72% | | |
| Resource Recovery/Diversion Rate (L/%) | N/A | 79.58% | 81.46% |

1.0 Purpose

The City of Monash has requested three (3) detailed weight based physical audits of kerbside bin contents (rubbish, recycling and green waste), reporting in weight and volume. Solo was contracted by City of Monash to conduct this Waste Audit in November 2020. This baseline audit will be compared to future data collected 12 months from the initial commencement of the audit.

2.0 Aim and Objectives

The aim of this waste audit is to quantify the amount and composition of materials being collected in a sample of rubbish, recycling and green waste post commencement of the additional food waste service throughout the Monash municipality. This information will be used to inform future waste and recycling strategies, as well as establish a baseline for reporting. The objective is to present information that will indicate any future trends in waste management. This data will then influence both future waste education initiatives, as well as operational contractual requirements.

3.0 Scope of Works

The audit will use a standard classification system as agreed upon by Council prior to commencement to assess the materials in the rubbish, recycling and green waste bins for each of the serviced sites. The audit will identify and quantify the materials in terms of weight and volume for each of the three waste streams and include information on contamination.

Council requested the following data be provided to determine the current amount and composition of materials being collected in the rubbish, recycling and green waste streams. The audits will provide data to:

- report, review and track resource recovery in the recycling stream
- track resource recovery in the green waste stream from the inclusion of food waste
- identify opportunities to further recover recyclables and organics from the rubbish stream
- accurately measure contamination rates in recycling and green waste bins
- inform the target for diversion from landfill for food and green waste
- accurately measure performance against targets over time
- provide waste generation rates for each stream

The approved categories for household bin separation for the City of Monash can be found in Appendix 1.

All streams segregated align with the existing Council and Collection Facility's approved education information and strategies.

Due to the effects of COVID-19 it should be noted that national audits are showing higher than average rates of contamination and some variations in results due to residents working remotely.

4.0 Project Methodology

The project methodology follows the protocols outlined in the Sustainability Victoria guidelines (Appendix 4). The collection of five (5) samples of rubbish, five (5) samples of recycling and five (5) samples of green waste were requested by Council. This equates to the collection of a total of 250 samples in each stream and therefore a total of 750 bins from households.

The method of material sorting used throughout the audit is a 'physical sort and weigh'. This method allows for accurate comparison between results.

Council provided Solo with a data set of properties in excel format. Of these properties, 250 household samples were audited. A list of the suburbs audited and the composition of units and single dwellings can be found in Appendix 3. An auditor and side-lift truck driver were also provided with this list and collected samples in the nominated streets.

These bins were deposited at Solo's depot in Carrum Downs for sorting. During sorting, the waste was separated into selected streams and weighed as agreed upon with Council. The sorted bin contents were responsibly disposed of at the end of each auditing day. Images were taken during the audit and can be found in Appendix 2.

During sorting, mass (kg) was recorded on a hard copy spreadsheet. Measurements were taken to the nearest 0.005kg. Data was then entered into an electronic spreadsheet immediately after completion of the daily audit. When reporting, an error margin may occur of 0.01-0.001 units due to the use of formulas and rounding to two (2) or three (3) decimal places.

5.0 Results

5.1 Rubbish Stream

A total of 2,211.845kg (12,398.511L) of rubbish was collected. Of the sample, 250 household bins were sorted. A summary of key performance indicators can be found below for individual collection days and the total.

Table 1. Summary of Rubbish 2020 (Collection Day by Mass (Kg) and Volume (L) as a percentage).

| | KEY PERFORMANCE INDICATORS (RUBBISH) | | | | |
|------------------------------|--------------------------------------|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Total Diversion Rate (Kg, %) | 55.20% | 60.19% | 54.78% | 62.83% | 59.75% |
| Garden Organics (Kg, %) | 6.09% | 1.76% | 16.87% | 3.50% | 4.62% |
| Food Waste (Kg, %) | 35.76% | 55.64% | 44.24% | 37.93% | 37.82% |
| Recycling (Kg, %) | 8.16% | 8.58% | 10.48% | 21.93% | 11.08% |
| Other Materials (Kg, %) | 49.99% | 34.03% | 28.41% | 36.64% | 46.48% |
| Diversion Rate (L, %) | 63.90% | 69.85% | 64.59% | 68.82% | 66.10% |
| Garden Organics (L, %) | 7.16% | 2.35% | 20.21% | 3.85% | 5.36% |
| Food Waste (L, %) | 18.39% | 32.45% | 23.18% | 18.23% | 19.18% |
| Recycling (L, %) | 15.69% | 19.83% | 22.58% | 37.66% | 21.57% |
| Other Materials (L, %) | 58.76% | 45.37% | 34.04% | 40.26% | 53.89% |

Table 2. Summary of Rubbish 2020 (Collection Day by Mass (Kg) and Volume (L) as a household).

| | KEY PERFORMANCE INDICATORS (RUBBISH) | | | | |
|---------------------------|--------------------------------------|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Generation Rate (kg/hh/w) | 10.306 | 8.184 | 10.267 | 7.773 | 7.708 |
| Garden Organics (kg/hh/w) | 0.628 | 0.144 | 1.732 | 0.272 | 0.356 |
| Food Waste (kg/hh/w) | 3.686 | 4.553 | 4.542 | 2.948 | 2.915 |
| Recycling (kg/hh/w) | 0.841 | 0.702 | 1.076 | 1.704 | 0.854 |
| Other Materials (kg/hh/w) | 5.152 | 2.785 | 2.917 | 2.848 | 3.583 |
| Generation Rate (L/hh/w) | 58.447 | 40.914 | 57.132 | 47.155 | 44.322 |
| Garden Organics (L/hh/w) | 4.185 | 0.960 | 11.547 | 1.815 | 2.375 |
| Food Waste (L/hh/w) | 10.746 | 13.275 | 13.241 | 8.595 | 8.499 |
| Recycling (L/hh/w) | 9.172 | 8.115 | 12.899 | 17.759 | 9.562 |
| Other Materials (L/hh/w) | 34.344 | 18.564 | 19.445 | 18.986 | 23.886 |

Table 3. Comparison of Summary KPI's from 2015, 2019 and 2020.

| | KEY PERFORMANCE INDICATORS (RUBBISH) | | | |
|--------------------------|--------------------------------------|-----------|-----------|----------|
| | 2015 (Kg) | 2019 (Kg) | 2020 (Kg) | 2020 (L) |
| Total Diversion Rate (%) | N/A | N/A | 58.51% | 66.60% |
| Garden Organics (%) | 5.90% | 2.00% | 7.08% | 8.42% |
| Food Waste (%) | 51.10% | 48.00% | 42.15% | 21.92% |
| Recycling (%) | 13.20% | 11.60% | 11.70% | 23.19% |
| Other Materials (%) | 29.70% | 38.40% | 39.07% | 46.47% |
| Generation Rate (hh/w) | 10.710 | 8.941 | 8.847 | 49.594 |
| Garden Organics (hh/w) | 0.630 | 0.180 | 0.626 | 4.176 |
| Food Waste (hh/w) | 5.470 | 4.290 | 3.729 | 10.871 |
| Recycling (hh/w) | 1.420 | 1.040 | 1.035 | 11.501 |
| Other Materials (hh/w) | 3.190 | 3.440 | 3.457 | 23.045 |

Of all the materials presented across all three streams, 58.51% (66.60% in litres) consisted of accepted recycling and organics that have been diverted from landfill. Should all recyclable and organic material be successfully segregated by households with no contamination, we would see a total potential diversion of 81.88% from landfill. The remaining materials would then only consist of potentially recoverable or unavoidable waste.

The data identified a rubbish generation rate of 8.847kg/hh/w or 49.594L/hh/w.

The rubbish stream was composed of numerous significant weights. The most significant was fruit and vegetable (347.540kg), whilst soft plastic (173.380kg), nappies/hygiene products (158.705kg), garden pruning's/glass clippings (121.435kg), paper towel, tissue, serviettes, paper napkins (106.695kg) and building materials (106.735kg) were also some of the bulkiest items found.

Food waste made up 42.15% (Kg) and 21.92% (L) of the stream. The percentage of other recoverable resources found in the rubbish stream (organics and recyclables) was 18.78% (Kg) or 31.61% (L).

Of the Other Materials (39.07%) a portion of this is made up of materials that could be considered potentially recoverable (9.21%), these include; soft plastics, other metals, E-Waste, batteries, globes and bagged recyclables.

The composition of the rubbish stream and the potential recovery in the stream can be found in the following Figures 1-2.

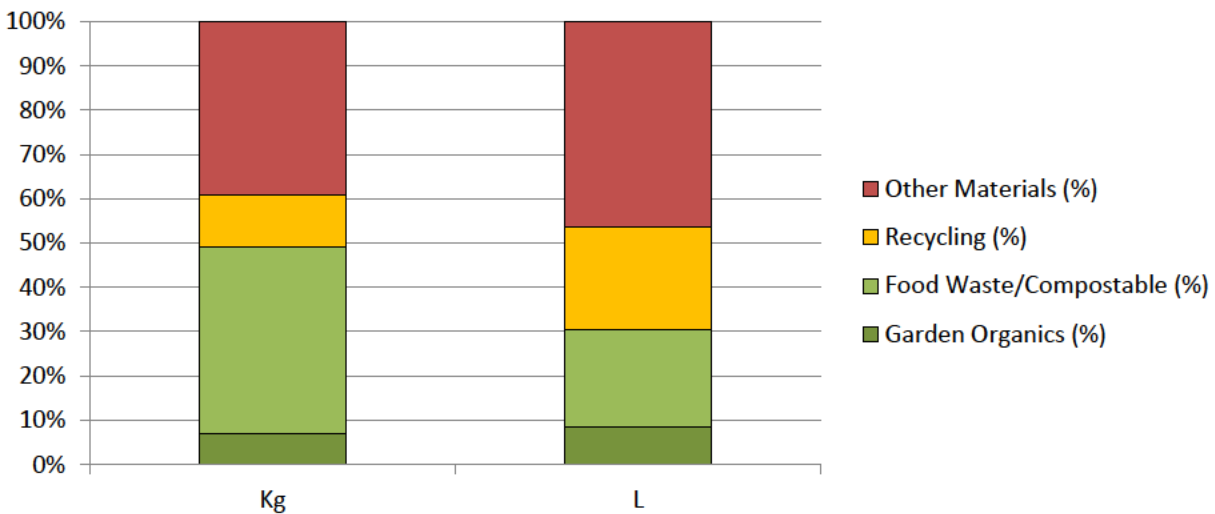


Figure 1. Summary of Rubbish Mass (Kg) vs Volume (L) 2020.

In terms of volume, recyclables take up more space within the garbage bin than that of food waste as seen in Figure 1.

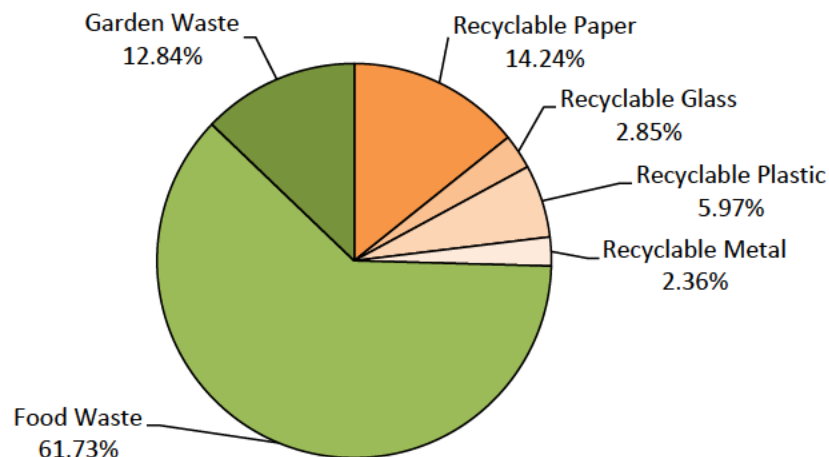


Figure 2. Resource Loss in Rubbish Stream by Mass (Kg) 2020.

Food waste has the most potential for recovery within the rubbish stream by mass (Figure 2), however the large quantities of recoverable garden waste and paper should be highlighted.

The composition of the rubbish stream for 2020 can be found in Table 4 and 5. These tables show the total weight (kg) for each material and the percentage (%) composition that material makes up in the stream from a weekly sample

Table 4. Rubbish Stream Total Composition 2020 (kg).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Paper | Paper / Newspaper (pieces > A6) | 10.590 | 7.515 | 12.165 | 56.890 | 9.135 | 96.295 |
| | Paper other (shredded / pieces < A6) | 1.000 | 1.765 | 1.350 | 1.245 | 0.905 | 6.265 |
| | Cardboard | 13.170 | 7.970 | 9.465 | 6.785 | 8.070 | 45.460 |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.475 | 0.425 | 0.365 | 1.015 | 0.930 | 3.210 |
| | Contaminated soiled paper / cardboard | 6.960 | 0.000 | 7.480 | 4.225 | 7.280 | 25.945 |
| | Other/Mixed (incl. receipts, TetraPak) | 3.060 | 0.620 | 1.410 | 3.760 | 1.150 | 10.000 |
| | Total Paper | 35.255 | 18.295 | 32.235 | 73.920 | 27.470 | 187.175 |
| Food / organic | Fruit, vegetables | 54.165 | 102.460 | 77.990 | 44.005 | 68.920 | 347.540 |
| | Staples | 10.385 | 11.260 | 5.630 | 6.570 | 4.930 | 38.775 |
| | Meat, fish, bones | 15.430 | 9.825 | 12.475 | 9.145 | 7.625 | 54.500 |
| | Dairy, Cooked leftovers | 2.050 | 7.040 | 2.885 | 2.790 | 1.570 | 16.335 |
| | Wrapped / bagged food (accepted forms) | 12.815 | 3.595 | 3.110 | 10.540 | 0.000 | 30.060 |
| | Wrapped / bagged food (non-accepted forms) | 70.100 | 52.600 | 105.075 | 60.825 | 41.325 | 329.925 |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.110 | 0.000 | 0.000 | 0.785 | 0.000 | 0.895 |
| | Paper towel / tissues / serviettes / paper napkins | 18.595 | 38.165 | 17.915 | 12.430 | 19.590 | 106.695 |
| | Other | 0.755 | 2.720 | 2.000 | 1.105 | 1.800 | 8.380 |
| | Total Food/Organic | 184.405 | 227.665 | 227.080 | 148.195 | 145.760 | 933.105 |
| Garden / timber | Garden prunings / glass clippings (accepted) | 23.425 | 5.200 | 77.770 | 5.700 | 9.340 | 121.435 |
| | Wood/timber (accepted) | 0.000 | 0.235 | 0.000 | 2.445 | 0.285 | 2.965 |
| | Other Putrescible | 24.820 | 0.395 | 16.350 | 40.010 | 11.040 | 92.615 |
| | Total Garden/Timber | 48.245 | 5.830 | 94.120 | 48.155 | 20.665 | 217.015 |
| Textiles | Clothing / shoes (not accepted) | 9.595 | 3.715 | 6.600 | 8.860 | 4.595 | 33.365 |
| | Bedding / pillows / blankets (not accepted) | 1.740 | 8.755 | 0.000 | 0.000 | 1.995 | 12.490 |
| | Other | 7.725 | 3.150 | 1.770 | 17.560 | 39.620 | 69.825 |
| | Total Textiles | 19.060 | 15.620 | 8.370 | 26.420 | 46.210 | 115.680 |
| Glass | Drink Bottles (recyclable) | 2.415 | 0.000 | 5.260 | 1.610 | 2.400 | 11.685 |
| | Bottles - other (recyclable) | 0.275 | 0.605 | 0.000 | 0.450 | 0.000 | 1.330 |
| | Jars / containers (recyclable) | 0.420 | 4.485 | 3.120 | 3.420 | 1.530 | 12.975 |
| | Glass fines | 0.410 | 0.000 | 2.655 | 0.000 | 0.000 | 3.065 |
| | Other | 2.215 | 0.530 | 0.755 | 0.000 | 1.450 | 4.950 |
| | Total Glass | 5.735 | 5.620 | 11.790 | 5.480 | 5.380 | 34.005 |

Table 4 Cont. Rubbish Stream Total Composition 2020 (kg).

| | | | | | | | |
|------------------------------|--------------------------------------|----------------|---------------|---------------|---------------|---------------|----------------|
| Plastic | Drink Bottles (recyclable) | 1.020 | 1.495 | 3.720 | 1.190 | 1.995 | 9.420 |
| | Bottles - other (recyclable) | 1.660 | 2.025 | 0.000 | 0.000 | 2.010 | 5.695 |
| | Hard plastic containers (recyclable) | 7.425 | 6.930 | 12.020 | 8.515 | 10.760 | 45.650 |
| | Hard plastics (not accepted) | 9.655 | 0.075 | 2.820 | 2.630 | 0.370 | 15.550 |
| | Soft plastics (not accepted) | 35.390 | 40.370 | 33.805 | 30.090 | 33.725 | 173.380 |
| | Polystyrene (not accepted) | 0.930 | 1.035 | 0.690 | 0.825 | 0.910 | 4.390 |
| | Small plastics (not accepted) | 1.060 | 1.435 | 1.485 | 0.905 | 1.330 | 6.215 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total Plastic | 57.140 | 53.365 | 54.540 | 44.155 | 51.100 | 260.300 |
| Metal | Aluminium cans (accepted) | 0.375 | 0.240 | 1.635 | 0.555 | 0.805 | 3.610 |
| | Aluminium foil / trays (accepted) | 1.525 | 1.150 | 0.650 | 1.735 | 2.495 | 7.555 |
| | Steel cans (accepted) | 1.800 | 1.980 | 2.560 | 2.500 | 2.360 | 11.200 |
| | Aerosol cans (accepted, if empty) | 0.475 | 0.270 | 0.195 | 0.550 | 0.195 | 1.685 |
| | Other | 5.410 | 0.955 | 5.320 | 0.345 | 10.180 | 22.210 |
| | Total Metals | 9.585 | 4.595 | 10.360 | 5.685 | 16.035 | 46.260 |
| Potentially hazardous | Paint | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Fluorescent globes | 0.060 | 0.040 | 0.000 | 0.000 | 0.000 | 0.100 |
| | Nappies/Hygiene products | 18.685 | 42.845 | 40.325 | 24.560 | 32.290 | 158.705 |
| | Household chemicals | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Pharmaceuticals / medical / syringes | 0.890 | 0.000 | 0.000 | 0.040 | 0.000 | 0.930 |
| | Aerosol cans (partial / full) | 2.660 | 0.000 | 0.000 | 0.000 | 0.000 | 2.660 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total Potentially Hazardous | 22.295 | 42.885 | 40.325 | 24.600 | 32.290 | 162.395 |
| E-Waste | Batteries - household / dry cell | 0.060 | 0.225 | 0.185 | 0.060 | 0.140 | 0.670 |
| | Batteries - other / car | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Electrical items | 5.170 | 0.255 | 1.355 | 0.505 | 0.120 | 7.405 |
| | Other | 0.000 | 0.045 | 0.000 | 0.000 | 0.000 | 0.045 |
| | Total E-Waste | 5.230 | 0.525 | 1.540 | 0.565 | 0.260 | 8.120 |
| Other | Dust/ dirt/ rock/inert | 11.305 | 0.000 | 10.650 | 4.920 | 17.835 | 44.710 |
| | Ash | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Soil | 69.960 | 0.000 | 5.325 | 0.000 | 0.000 | 75.285 |
| | Non recyclable timber/wood | 12.710 | 0.135 | 0.000 | 0.000 | 0.000 | 12.845 |
| | Building materials | 33.335 | 34.325 | 10.245 | 6.540 | 22.290 | 106.735 |
| | Gardening equipment | 0.410 | 0.000 | 0.425 | 0.000 | 0.105 | 0.940 |
| | Bagged recyclables | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Rubbish loose / Bagged rubbish | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Other | 0.625 | 0.325 | 6.325 | 0.000 | 0.000 | 7.275 |
| | Total Other | 128.345 | 34.785 | 32.970 | 11.460 | 40.230 | 247.790 |

Table 5. Rubbish Stream Total Composition 2020 (kg,%).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|-----------------|---|--------|---------|-----------|----------|--------|--------|
| Paper | Paper / Newspaper (pieces > A6) | 2.06% | 1.84% | 2.37% | 14.64% | 2.37% | 4.35% |
| | Paper other (shredded / pieces < A6) | 0.19% | 0.43% | 0.26% | 0.32% | 0.23% | 0.28% |
| | Cardboard | 2.56% | 1.95% | 1.84% | 1.75% | 2.09% | 2.06% |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.09% | 0.10% | 0.07% | 0.26% | 0.24% | 0.15% |
| | Contaminated soiled paper / cardboard | 1.35% | 0.00% | 1.46% | 1.09% | 1.89% | 1.17% |
| | Other/Mixed (incl. receipts, TetraPak) | 0.59% | 0.15% | 0.27% | 0.97% | 0.30% | 0.45% |
| Food / organic | Fruit, vegetables | 10.51% | 25.04% | 15.19% | 11.32% | 17.88% | 15.71% |
| | Staples | 2.02% | 2.75% | 1.10% | 1.69% | 1.28% | 1.75% |
| | Meat, fish, bones | 2.99% | 2.40% | 2.43% | 2.35% | 1.98% | 2.46% |
| | Dairy, Cooked leftovers | 0.40% | 1.72% | 0.56% | 0.72% | 0.41% | 0.74% |
| | Wrapped / bagged food (accepted forms) | 2.49% | 0.88% | 0.61% | 2.71% | 0.00% | 1.36% |
| | Wrapped / bagged food (non-accepted forms) | 13.60% | 12.85% | 20.47% | 15.65% | 10.72% | 14.92% |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.02% | 0.00% | 0.00% | 0.20% | 0.00% | 0.04% |
| | Paper towel / tissues / serviettes / paper napkins | 3.61% | 9.33% | 3.49% | 3.20% | 5.08% | 4.82% |
| | Other | 0.15% | 0.66% | 0.39% | 0.28% | 0.47% | 0.38% |
| Garden / timber | Garden prunings / glass clippings (accepted) | 4.55% | 1.27% | 15.15% | 1.47% | 2.42% | 5.49% |
| | Wood/timber (accepted) | 0.00% | 0.06% | 0.00% | 0.63% | 0.07% | 0.13% |
| | Other Putrescible | 4.82% | 0.10% | 3.19% | 10.30% | 2.86% | 4.19% |
| Textiles | Clothing / shoes (not accepted) | 1.86% | 0.91% | 1.29% | 2.28% | 1.19% | 1.51% |
| | Bedding / pillows / blankets (not accepted) | 0.34% | 2.14% | 0.00% | 0.00% | 0.52% | 0.56% |
| | Other | 1.50% | 0.77% | 0.34% | 4.52% | 10.28% | 3.16% |
| Glass | Drink Bottles (recyclable) | 0.47% | 0.00% | 1.02% | 0.41% | 0.62% | 0.53% |
| | Bottles - other (recyclable) | 0.05% | 0.15% | 0.00% | 0.12% | 0.00% | 0.06% |
| | Jars / containers (recyclable) | 0.08% | 1.10% | 0.61% | 0.88% | 0.40% | 0.59% |
| | Glass fines | 0.08% | 0.00% | 0.52% | 0.00% | 0.00% | 0.14% |
| | Other | 0.43% | 0.13% | 0.15% | 0.00% | 0.38% | 0.22% |
| Plastic | Drink Bottles (recyclable) | 0.20% | 0.37% | 0.72% | 0.31% | 0.52% | 0.43% |
| | Bottles - other (recyclable) | 0.32% | 0.49% | 0.00% | 0.00% | 0.52% | 0.26% |
| | Hard plastic containers (recyclable) | 1.44% | 1.69% | 2.34% | 2.19% | 2.79% | 2.06% |
| | Hard plastics (not accepted) | 1.87% | 0.02% | 0.55% | 0.68% | 0.10% | 0.70% |
| | Soft plastics (not accepted) | 6.87% | 9.87% | 6.59% | 7.74% | 8.75% | 7.84% |
| | Polystyrene (not accepted) | 0.18% | 0.25% | 0.13% | 0.21% | 0.24% | 0.20% |
| | Small plastics (not accepted) | 0.21% | 0.35% | 0.29% | 0.23% | 0.35% | 0.28% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Table 5 Cont. Rubbish Stream Total Composition 2020 (kg,%).

| | | | | | | | |
|------------------------------|--------------------------------------|--------|--------|-------|-------|-------|-------|
| Metal | Aluminium cans (accepted) | 0.07% | 0.06% | 0.32% | 0.14% | 0.21% | 0.16% |
| | Aluminium foil / trays (accepted) | 0.30% | 0.28% | 0.13% | 0.45% | 0.65% | 0.34% |
| | Steel cans (accepted) | 0.35% | 0.48% | 0.50% | 0.64% | 0.61% | 0.51% |
| | Aerosol cans (accepted, if empty) | 0.09% | 0.07% | 0.04% | 0.14% | 0.05% | 0.08% |
| | Other | 1.05% | 0.23% | 1.04% | 0.09% | 2.64% | 1.00% |
| Potentially hazardous | Paint | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Fluorescent globes | 0.01% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Nappies/Hygiene products | 3.63% | 10.47% | 7.86% | 6.32% | 8.38% | 7.18% |
| | Household chemicals | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Pharmaceuticals / medical / syringes | 0.17% | 0.00% | 0.00% | 0.01% | 0.00% | 0.04% |
| | Aerosol cans (partial / full) | 0.52% | 0.00% | 0.00% | 0.00% | 0.00% | 0.12% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| E-Waste | Batteries - household / dry cell | 0.01% | 0.05% | 0.04% | 0.02% | 0.04% | 0.03% |
| | Batteries - other / car | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Electrical items | 1.00% | 0.06% | 0.26% | 0.13% | 0.03% | 0.33% |
| | Other | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other | Dust/ dirt/ rock/inert | 2.19% | 0.00% | 2.07% | 1.27% | 4.63% | 2.02% |
| | Ash | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Soil | 13.58% | 0.00% | 1.04% | 0.00% | 0.00% | 3.40% |
| | Non recyclable timber/wood | 2.47% | 0.03% | 0.00% | 0.00% | 0.00% | 0.58% |
| | Building materials | 6.47% | 8.39% | 2.00% | 1.68% | 5.78% | 4.83% |
| | Gardening equipment | 0.08% | 0.00% | 0.08% | 0.00% | 0.03% | 0.04% |
| | Bagged recyclables | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Rubbish loose / Bagged rubbish | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.12% | 0.08% | 1.23% | 0.00% | 0.00% | 0.33% |

5.2 Recycling Stream

A total of 2,374.710kg (26,744.805L) of household recycling was collected. Of the sample, 250 household bins were sorted. A summary of key performance indicators can be found below for individual suburbs and the total.

Table 6. Summary of Recycle Stream 2020 (Collection Day by Mass (Kg) and Volume (L) as a percentage).

| | KEY PERFORMANCE INDICATORS (RECYCLE) | | | | |
|-------------------------------|--------------------------------------|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Resource Recovery Rate (Kg,%) | 83.11% | 80.20% | 80.68% | 68.98% | 75.66% |
| Garden Organics (Kg,%) | 1.09% | 1.11% | 1.84% | 0.65% | 5.51% |
| Food Waste (Kg,%) | 0.56% | 0.71% | 1.04% | 0.86% | 2.91% |
| Recycling (Kg,%) | 84.46% | 83.90% | 85.74% | 72.75% | 68.79% |
| Other Materials (Kg,%) | 13.88% | 14.28% | 11.38% | 25.74% | 22.78% |
| Resource Recovery Rate (L,%) | 84.57% | 81.62% | 81.82% | 73.07% | 77.21% |
| Garden Organics (L,%) | 0.65% | 0.64% | 1.03% | 0.40% | 3.54% |
| Food Waste (L,%) | 0.15% | 0.18% | 0.25% | 0.23% | 0.82% |
| Recycling (L,%) | 91.00% | 90.90% | 92.40% | 83.81% | 80.99% |
| Other Materials (L,%) | 8.21% | 8.27% | 6.33% | 15.57% | 14.65% |

Table 7. Summary of Recycling Stream 2020 (Collection Day by Mass (Kg) and Volume (L) as a household).

| | KEY PERFORMANCE INDICATORS (RECYCLE) | | | | |
|---------------------------|--------------------------------------|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Generation Rate (kg/hh/w) | 4.932 | 4.032 | 5.259 | 5.615 | 3.909 |
| Garden Organics (kg/hh/w) | 0.054 | 0.045 | 0.097 | 0.037 | 0.215 |
| Food Waste (kg/hh/w) | 0.028 | 0.029 | 0.055 | 0.048 | 0.114 |
| Recycling (kg/hh/w) | 4.165 | 3.383 | 4.509 | 4.085 | 2.689 |
| Other Materials (kg/hh/w) | 0.685 | 0.576 | 0.598 | 1.445 | 0.891 |
| Generation Rate (L/hh/w) | 55.597 | 46.388 | 63.056 | 61.880 | 40.527 |
| Garden Organics (L/hh/w) | 0.360 | 0.299 | 0.646 | 0.245 | 1.436 |
| Food Waste (L/hh/w) | 0.081 | 0.084 | 0.160 | 0.141 | 0.332 |
| Recycling (L/hh/w) | 50.591 | 42.168 | 58.262 | 51.860 | 32.822 |
| Other Materials (L/hh/w) | 4.565 | 3.838 | 3.988 | 9.634 | 5.937 |

Table 8. Summary KPI's from Recycling Stream 2020 (Total Mass (Kg) and Volume (L))

| | KEY PERFORMANCE INDICATORS (RECYCLE) | | |
|----------------------------|--------------------------------------|-----------|----------|
| | 2019 (Kg) | 2020 (Kg) | 2020 (L) |
| Generation Rate (hh/w) | N/A | 4.749 | 53.490 |
| Garden Organics (%) | N/A | 1.89% | 1.12% |
| Food Waste (%) | N/A | 1.15% | 0.30% |
| Recycling (%) | 87.87% | 79.30% | 88.13% |
| Other Materials (%) | 12.13% | 17.66% | 10.45% |
| Resource Recovery Rate (%) | N/A | 77.51% | 79.58% |

The data identified a recycle generation rate of 4.749kg/hh/w or 53.490L/hh/w.

There were numerous categories of significance within the recycling stream. The most significant category by weight was cardboard (483.685kg), with glass drink bottles (422.515kg), paper/newspaper (410.440kg), glass fines (152.075kg) and hard plastic containers (101.805kg) being the other most significant.

The total weight of recycling in the recycling stream was 1,883.120kg whilst there was a total of 46.195kg of bagged recycling found within the recycling stream.

The total contamination rate was 20.70% (Kg) and 11.87% (L). Of the Other Materials (17.66%) a portion of this is made up of materials that could be considered potentially recoverable (6.98%), these include; soft plastics, other metals, E-Waste, batteries, globes and bagged recyclables. In terms of the most significant amounts of contamination, soft plastic (38.640kg), electrical items (44.600kg), bagged recycling (46.195kg) and loose/bagged garbage (62.030kg) were the heaviest, whilst there was a day where building material (58.755kg) was significantly high, putting it within the heaviest category range.

The data identified a resource recovery rate of recycling from landfill of 77.51% (Kg) and 79.58% (L).

The composition of the recycling stream can be found in Figures 3-5.

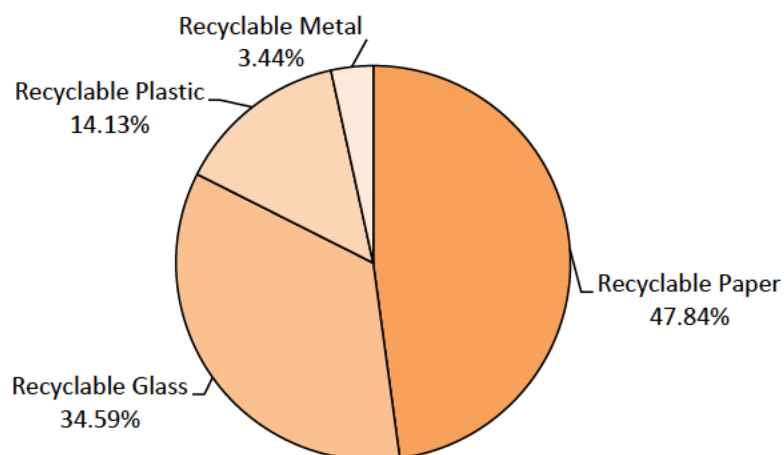


Figure 3. Composition of Accepted Recyclable Waste in Stream by Mass (Kg) 2020.

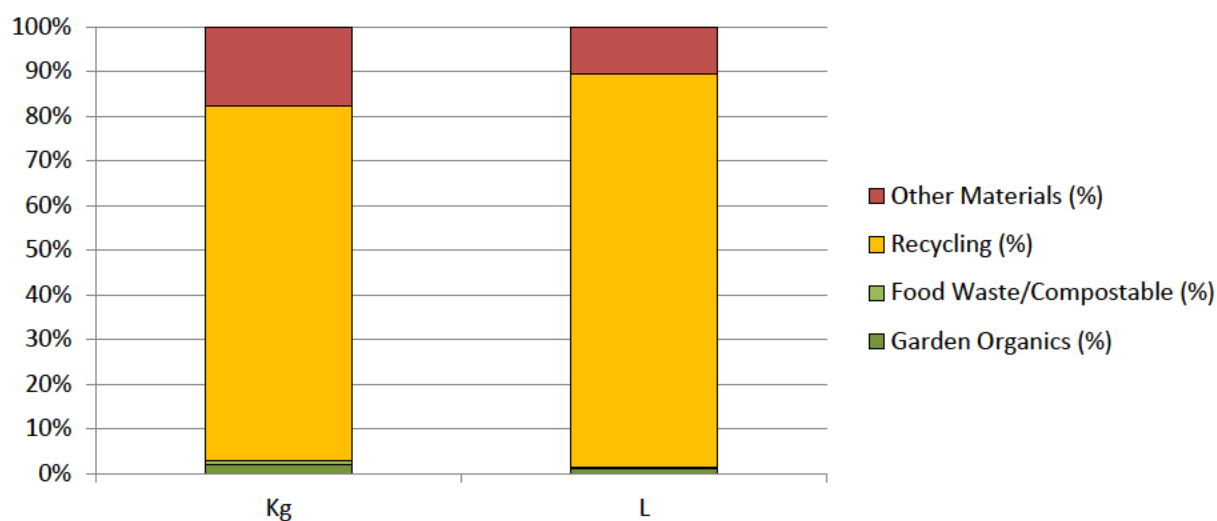


Figure 4. Summary Recycling Mass (Kg) vs Volume (L) 2020.

The composition of the recycling stream for 2020 can be found in Table 9 and 10. These tables show the total weight (kg) for each material and the percentage (%) composition that material makes up in the stream from a fortnightly sample

Table 9. Recycling Stream Total Composition 2020 (kg).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Paper | Paper / Newspaper (pieces > A6) | 133.715 | 64.355 | 82.470 | 83.095 | 46.805 | 410.440 |
| | Paper other (shredded / pieces < A6) | 5.185 | 1.575 | 9.695 | 2.920 | 2.195 | 21.570 |
| | Cardboard | 95.430 | 95.565 | 110.315 | 92.495 | 89.880 | 483.685 |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.820 | 1.290 | 1.260 | 2.935 | 0.470 | 6.775 |
| | Contaminated soiled paper / cardboard | 0.000 | 1.055 | 0.000 | 0.750 | 0.000 | 1.805 |
| | Other/Mixed (incl. receipts, TetraPak) | 5.235 | 4.945 | 2.770 | 4.900 | 9.530 | 27.380 |
| | Total Paper | 240.385 | 168.785 | 206.510 | 187.095 | 148.880 | 951.655 |
| Food / organic | Fruit, vegetables | 0.000 | 0.000 | 0.405 | 0.000 | 0.000 | 0.405 |
| | Staples | 0.000 | 0.100 | 0.070 | 0.000 | 0.140 | 0.310 |
| | Meat, fish, bones | 0.095 | 0.125 | 0.635 | 0.000 | 0.000 | 0.855 |
| | Dairy, Cooked leftovers | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Wrapped / bagged food (accepted forms) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Wrapped / bagged food (non-accepted forms) | 0.820 | 2.610 | 1.025 | 4.415 | 9.860 | 18.730 |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.075 | 0.000 | 0.000 | 0.070 | 0.205 | 0.350 |
| | Paper towel / tissues / serviettes / paper napkins | 0.505 | 0.035 | 0.235 | 0.420 | 0.575 | 1.770 |
| | Other | 1.365 | 0.000 | 3.115 | 0.000 | 0.815 | 5.295 |
| | Total Food/Organic | 2.860 | 2.870 | 5.485 | 4.905 | 11.595 | 27.715 |
| Garden / timber | Garden prunings / glass clippings (accepted) | 0.075 | 1.855 | 0.000 | 0.005 | 19.350 | 21.285 |
| | Wood/timber (accepted) | 0.140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.140 |
| | Other Putrescible | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total Garden/Timber | 0.215 | 1.855 | 0.000 | 0.005 | 19.350 | 21.425 |
| Textiles | Clothing / shoes (not accepted) | 0.325 | 4.365 | 1.190 | 6.790 | 2.485 | 15.155 |
| | Bedding / pillows / blankets (not accepted) | 0.000 | 1.100 | 0.000 | 0.000 | 3.400 | 4.500 |
| | Other | 2.445 | 0.000 | 4.765 | 1.100 | 3.105 | 11.415 |
| | Total Textiles | 2.770 | 5.465 | 5.955 | 7.890 | 8.990 | 31.070 |
| Glass | Drink Bottles (recyclable) | 79.450 | 62.725 | 135.840 | 91.280 | 53.220 | 422.515 |
| | Bottles - other (recyclable) | 2.650 | 1.720 | 0.420 | 1.005 | 0.475 | 6.270 |
| | Jars / containers (recyclable) | 12.600 | 10.005 | 16.205 | 19.210 | 12.470 | 70.490 |
| | Glass fines | 26.370 | 26.790 | 44.240 | 36.305 | 18.370 | 152.075 |
| | Other | 1.580 | 2.460 | 0.000 | 6.115 | 4.285 | 14.440 |
| | Total Glass | 122.650 | 103.700 | 196.705 | 153.915 | 88.820 | 665.790 |

Table 9 Cont. Recycling Stream Total Composition 2020 (kg).

| | | | | | | | |
|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|---------|
| Plastic | Drink Bottles (recyclable) | 16.540 | 11.725 | 24.365 | 20.620 | 8.425 | 81.675 |
| | Bottles - other (recyclable) | 15.995 | 27.265 | 1.170 | 24.320 | 13.775 | 82.525 |
| | Hard plastic containers (recyclable) | 20.240 | 23.865 | 22.560 | 21.505 | 13.635 | 101.805 |
| | Hard plastics (not accepted) | 3.545 | 2.190 | 5.010 | 10.845 | 6.205 | 27.795 |
| | Soft plastics (not accepted) | 9.365 | 9.195 | 6.445 | 6.780 | 6.855 | 38.640 |
| | Polystyrene (not accepted) | 0.730 | 0.465 | 0.550 | 0.250 | 0.885 | 2.880 |
| | Small plastics (not accepted) | 0.060 | 1.400 | 0.520 | 0.890 | 1.650 | 4.520 |
| | Other | 0.175 | 0.150 | 0.525 | 0.000 | 0.000 | 0.850 |
| | Total Plastic | 66.650 | 76.255 | 61.145 | 85.210 | 51.430 | 340.690 |
| Metal | Aluminium cans (accepted) | 4.730 | 1.690 | 5.170 | 5.770 | 2.570 | 19.930 |
| | Aluminium foil / trays (accepted) | 0.260 | 0.250 | 0.095 | 0.550 | 0.475 | 1.630 |
| | Steel cans (accepted) | 6.885 | 10.350 | 5.595 | 7.945 | 7.025 | 37.800 |
| | Aerosol cans (accepted, if empty) | 0.835 | 0.715 | 1.175 | 1.455 | 1.325 | 5.505 |
| | Other | 1.385 | 1.845 | 2.920 | 22.750 | 6.530 | 35.430 |
| | Total Metal | 14.095 | 14.850 | 14.955 | 38.470 | 17.925 | 100.295 |
| Potentially hazardous | Paint | 0.000 | 0.000 | 0.030 | 0.000 | 0.000 | 0.030 |
| | Fluorescent globes | 0.035 | 0.265 | 0.060 | 0.000 | 0.030 | 0.390 |
| | Nappies/Hygiene products | 0.715 | 0.140 | 0.210 | 0.345 | 0.255 | 1.665 |
| | Household chemicals | 0.000 | 0.000 | 0.000 | 3.505 | 0.730 | 4.235 |
| | Pharmaceuticals / medical / syringes | 0.045 | 0.025 | 0.000 | 0.000 | 0.000 | 0.070 |
| | Aerosol cans (partial / full) | 0.000 | 0.000 | 0.000 | 0.515 | 0.600 | 1.115 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.300 | 0.300 |
| | Total Potentially Hazardous | 0.795 | 0.430 | 0.300 | 4.365 | 1.915 | 7.805 |
| E-Waste | Batteries - household / dry cell | 0.005 | 0.115 | 0.230 | 0.020 | 0.030 | 0.400 |
| | Batteries - other / car | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Electrical items | 17.450 | 4.465 | 4.360 | 5.160 | 13.165 | 44.600 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total E-Waste | 17.455 | 4.580 | 4.590 | 5.180 | 13.195 | 45.000 |
| Other | Dust/ dirt/ rock/inert | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Ash | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Soil | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Non recyclable timber/wood | 0.000 | 0.140 | 0.000 | 0.000 | 2.665 | 2.805 |
| | Building materials | 0.000 | 0.000 | 3.360 | 55.130 | 0.265 | 58.755 |
| | Gardening equipment | 0.870 | 1.080 | 1.050 | 1.615 | 5.190 | 9.805 |
| | Bagged recyclables | 12.200 | 6.275 | 14.700 | 8.000 | 5.020 | 46.195 |
| | Rubbish loose / Bagged rubbish | 11.565 | 16.500 | 9.180 | 9.735 | 15.050 | 62.030 |
| | Other | 0.665 | 0.445 | 1.950 | 0.000 | 0.615 | 3.675 |
| | Total Other | 25.300 | 24.440 | 30.240 | 74.480 | 28.805 | 183.265 |

Table 10. Recycling Stream Total Composition 2020 (kg,%).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|------------------------|---|--------|---------|-----------|----------|--------|--------|
| Paper | Paper / Newspaper (pieces > A6) | 27.11% | 15.96% | 15.68% | 14.80% | 11.97% | 17.28% |
| | Paper other (shredded / pieces < A6) | 1.05% | 0.39% | 1.84% | 0.52% | 0.56% | 0.91% |
| | Cardboard | 19.35% | 23.70% | 20.98% | 16.47% | 22.99% | 20.37% |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.17% | 0.32% | 0.24% | 0.52% | 0.12% | 0.29% |
| | Contaminated soiled paper / cardboard | 0.00% | 0.26% | 0.00% | 0.13% | 0.00% | 0.08% |
| | Other/Mixed (incl. receipts, TetraPak) | 1.06% | 1.23% | 0.53% | 0.87% | 2.44% | 1.15% |
| Food / organic | Fruit, vegetables | 0.00% | 0.00% | 0.08% | 0.00% | 0.00% | 0.02% |
| | Staples | 0.00% | 0.02% | 0.01% | 0.00% | 0.04% | 0.01% |
| | Meat, fish, bones | 0.02% | 0.03% | 0.12% | 0.00% | 0.00% | 0.04% |
| | Dairy, Cooked leftovers | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Wrapped / bagged food (accepted forms) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Wrapped / bagged food (non-accepted forms) | 0.17% | 0.65% | 0.19% | 0.79% | 2.52% | 0.79% |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.02% | 0.00% | 0.00% | 0.01% | 0.05% | 0.01% |
| | Paper towel / tissues / serviettes / paper napkins | 0.10% | 0.01% | 0.04% | 0.07% | 0.15% | 0.07% |
| | Other | 0.28% | 0.00% | 0.59% | 0.00% | 0.21% | 0.22% |
| Garden / timber | Garden prunings / glass clippings (accepted) | 0.02% | 0.46% | 0.00% | 0.00% | 4.95% | 0.90% |
| | Wood/timber (accepted) | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% |
| | Other Putrescible | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.07% | 1.08% | 0.23% | 1.21% | 0.64% | 0.64% |
| Textiles | Clothing / shoes (not accepted) | 0.00% | 0.27% | 0.00% | 0.00% | 0.87% | 0.19% |
| | Bedding / pillows / blankets (not accepted) | 0.00% | 0.27% | 0.00% | 0.00% | 0.87% | 0.19% |
| | Other | 0.50% | 0.00% | 0.91% | 0.20% | 0.79% | 0.48% |
| Glass | Drink Bottles (recyclable) | 16.11% | 15.56% | 25.83% | 16.26% | 13.61% | 17.79% |
| | Bottles - other (recyclable) | 0.54% | 0.43% | 0.08% | 0.18% | 0.12% | 0.26% |
| | Jars / containers (recyclable) | 2.55% | 2.48% | 3.08% | 3.42% | 3.19% | 2.97% |
| | Glass fines | 5.35% | 6.64% | 8.41% | 6.47% | 4.70% | 6.40% |
| | Other | 0.32% | 0.61% | 0.00% | 1.09% | 1.10% | 0.61% |
| Plastic | Drink Bottles (recyclable) | 3.35% | 2.91% | 4.63% | 3.67% | 2.16% | 3.44% |
| | Bottles - other (recyclable) | 3.24% | 6.76% | 0.22% | 4.33% | 3.52% | 3.48% |
| | Hard plastic containers (recyclable) | 4.10% | 5.92% | 4.29% | 3.83% | 3.49% | 4.29% |
| | Hard plastics (not accepted) | 0.72% | 0.54% | 0.95% | 1.93% | 1.59% | 1.17% |
| | Soft plastics (not accepted) | 1.90% | 2.28% | 1.23% | 1.21% | 1.75% | 1.63% |
| | Polystyrene (not accepted) | 0.15% | 0.12% | 0.10% | 0.04% | 0.23% | 0.12% |
| | Small plastics (not accepted) | 0.01% | 0.35% | 0.10% | 0.16% | 0.42% | 0.19% |
| | Other | 0.04% | 0.04% | 0.10% | 0.00% | 0.00% | 0.04% |

Table 10 Cont. Recycling Stream Total Composition 2020 (kg,%).

| | | | | | | | |
|------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|
| Metal | Aluminium cans (accepted) | 0.96% | 0.42% | 0.98% | 1.03% | 0.66% | 0.84% |
| | Aluminium foil / trays (accepted) | 0.05% | 0.06% | 0.02% | 0.10% | 0.12% | 0.07% |
| | Steel cans (accepted) | 1.40% | 2.57% | 1.06% | 1.41% | 1.80% | 1.59% |
| | Aerosol cans (accepted, if empty) | 0.17% | 0.18% | 0.22% | 0.26% | 0.34% | 0.23% |
| | Other | 0.28% | 0.46% | 0.56% | 4.05% | 1.67% | 1.49% |
| Potentially hazardous | Paint | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% |
| | Fluorescent globes | 0.01% | 0.07% | 0.01% | 0.00% | 0.01% | 0.02% |
| | Nappies/Hygiene products | 0.14% | 0.03% | 0.04% | 0.06% | 0.07% | 0.07% |
| | Household chemicals | 0.00% | 0.00% | 0.00% | 0.62% | 0.19% | 0.18% |
| | Pharmaceuticals / medical / syringes | 0.01% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Aerosol cans (partial / full) | 0.00% | 0.00% | 0.00% | 0.09% | 0.15% | 0.05% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.08% | 0.01% |
| E-Waste | Batteries - household / dry cell | 0.00% | 0.03% | 0.04% | 0.00% | 0.01% | 0.02% |
| | Batteries - other / car | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Electrical items | 3.54% | 1.11% | 0.83% | 0.92% | 3.37% | 1.88% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other | Dust/ dirt/ rock/inert | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Ash | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Soil | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Non recyclable timber/wood | 0.00% | 0.03% | 0.00% | 0.00% | 0.68% | 0.12% |
| | Building materials | 0.00% | 0.00% | 0.64% | 9.82% | 0.07% | 2.47% |
| | Gardening equipment | 0.18% | 0.27% | 0.20% | 0.29% | 1.33% | 0.41% |
| | Bagged recyclables | 2.47% | 1.56% | 2.80% | 1.42% | 1.28% | 1.95% |
| | Rubbish loose / Bagged rubbish | 2.35% | 4.09% | 1.75% | 1.73% | 3.85% | 2.61% |
| | Other | 0.13% | 0.11% | 0.37% | 0.00% | 0.16% | 0.15% |

5.3 Green Waste Stream

A total of 5,464.825kg (35,979.515L) of household green waste was collected. Of the sample, 250 household bins were sorted. A summary of key performance indicators can be found below for individual suburbs and the total.

Table 11. Summary of Green Waste Stream 2020 (Collection Day by Mass (Kg) and Volume (L) as a percentage).

| | KEY PERFORMANCE INDICATORS (GREEN WASTE) | | | | |
|-------------------------------|--|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Resource Recovery Rate (Kg,%) | 68.90% | 68.57% | 60.00% | 78.81% | 75.06% |
| Garden Organics (Kg,%) | 96.12% | 93.86% | 89.72% | 95.07% | 95.53% |
| Food Waste (Kg,%) | 1.76% | 3.44% | 3.88% | 1.87% | 2.80% |
| Recycling (Kg,%) | 0.06% | 1.25% | 0.03% | 1.04% | 0.10% |
| Other Materials (Kg,%) | 2.06% | 1.46% | 6.37% | 2.01% | 1.56% |
| Resource Recovery Rate (L,%) | 80.70% | 82.31% | 71.03% | 88.25% | 84.90% |
| Garden Organics (L,%) | 97.05% | 95.04% | 91.69% | 95.55% | 97.00% |
| Food Waste (L,%) | 0.78% | 1.52% | 1.73% | 0.82% | 1.24% |
| Recycling (L,%) | 0.09% | 1.96% | 0.07% | 1.61% | 0.17% |
| Other Materials (L,%) | 2.08% | 1.48% | 6.51% | 2.02% | 1.59% |

Table 12. Summary of Green Waste Stream 2020 (Collection Day by Mass (Kg) and Volume (L) as a household).

| | KEY PERFORMANCE INDICATORS (GREEN WASTE) | | | | |
|---------------------------|--|---------|-----------|----------|--------|
| | Monday | Tuesday | Wednesday | Thursday | Friday |
| Generation Rate (kg/hh/w) | 9.948 | 10.699 | 10.296 | 12.684 | 11.021 |
| Garden Organics (kg/hh/w) | 9.562 | 10.042 | 9.238 | 12.059 | 10.529 |
| Food Waste (kg/hh/w) | 0.175 | 0.368 | 0.399 | 0.237 | 0.309 |
| Recycling (kg/hh/w) | 0.006 | 0.133 | 0.004 | 0.132 | 0.011 |
| Other Materials (kg/hh/w) | 0.205 | 0.156 | 0.655 | 0.255 | 0.172 |
| Generation Rate (L/hh/w) | 65.685 | 70.440 | 67.166 | 84.139 | 72.365 |
| Garden Organics (L/hh/w) | 63.750 | 66.947 | 61.587 | 80.393 | 70.191 |
| Food Waste (L/hh/w) | 0.510 | 1.072 | 1.164 | 0.691 | 0.900 |
| Recycling (L/hh/w) | 0.058 | 1.381 | 0.045 | 1.353 | 0.125 |
| Other Materials (L/hh/w) | 1.367 | 1.039 | 4.370 | 1.703 | 1.149 |

Table 13. Summary KPI's from the Green Waste Stream 2020 (Total Mass (Kg) and Volume (L))

| | KEY PERFORMANCE INDICATORS (GREEN WASTE) | |
|----------------------------|--|----------|
| | 2020 (Kg) | 2020 (L) |
| Generation Rate (hh/w) | 10.930 | 71.959 |
| Garden Organics (%) | 94.11% | 95.30% |
| Food Waste (%) | 2.72% | 1.21% |
| Recycling (%) | 0.52% | 0.82% |
| Other Materials (%) | 2.64% | 2.68% |
| Resource Recovery Rate (%) | 70.17% | 81.46% |

Incorrectly presented or packaged food and organic material is considered under Other Materials in the Green Waste reporting as they are considered contaminants. The data identified a green waste generation rate of 10.930kg/hh/w or 71.959L/hh/w. The most significant category by weight was garden prunings and grass clippings (5121.730kg), along with fruit and vegetable's (76.140kg), cardboard (19.115kg), non-recyclable timber wood (22.300kg), bagged recycling (15.860kg) and dust, dirt, rock inert (12.050kg).

The total contamination rate was 3.17% (Kg) and 3.50% (L). Of the other materials (2.64%), a portion of this is made up of materials that could be considered potentially recoverable (1.65%). These include; containerised or incorrectly packaged food, soft plastics, other metals, E-Waste, batteries, globes and bagged green waste. A summary of loose vs bagged food can be found in Section 5.4. The data identified a resource recovery rate of garden waste and food waste from landfill of 77.11% (Kg) and 85.43% (L).

The composition of the materials in the Green Waste stream can be found in the following Figure 5.

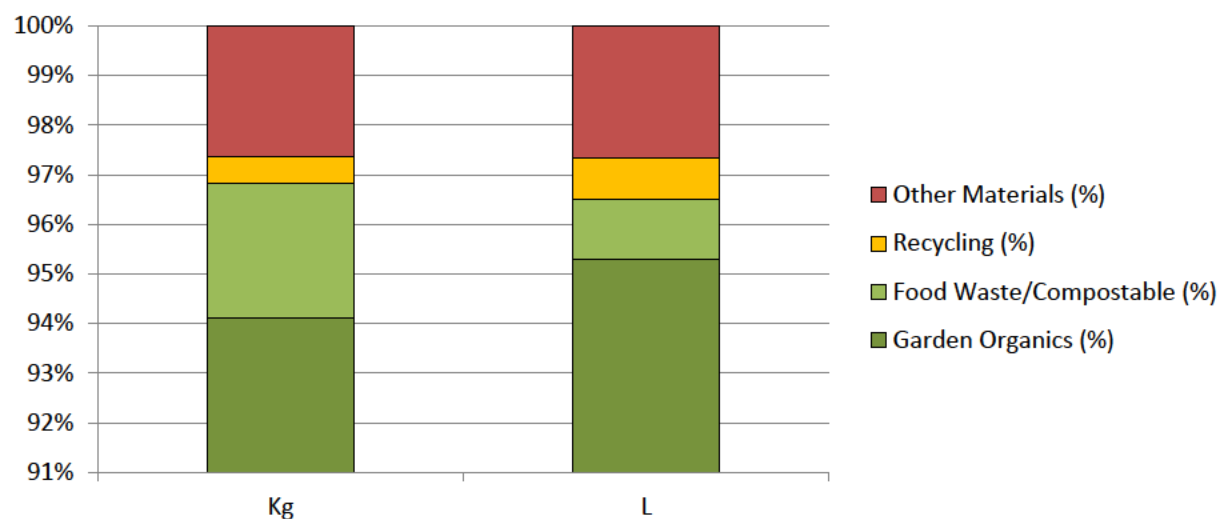


Figure 5. Summary of Green Waste Mass (Kg) vs Volume (L) 2020.

Within the green waste stream, food waste was presented in either Accepted Packaging (compostable liners, wrapped in paper towel or newspaper) or Not Accepted Packaging (soft plastic lining or in it's original packaging). Below details the composition of materials found within these different forms of packaging.

Table 14. Summary of accepted and not accepted packaging for the green waste stream.

| | Green Waste | |
|--|--------------------|------------------------|
| | Accepted Packaging | Not Accepted Packaging |
| Fruit, vegetables | 79.46% | 68.62% |
| Staples | 8.97% | 16.08% |
| Meat, fish, bones | 4.46% | 10.16% |
| Dairy, Cooked leftovers | 3.67% | 5.14% |
| Paper towel / tissues / serviettes / paper napkins | 3.06% | 0.00% |
| Other Food/Compostable | 0.01% | 0.00% |
| Compostable Paper Products | 0.28% | 0.00% |
| Green Waste | 0.00% | 0.00% |
| Recyclables | 0.00% | 0.00% |
| Other Materials/ Contamination | 0.08% | 0.00% |

Of the accepted forms of packaging in the Green Waste stream, there was almost no presence of contamination (0.08%) which is a good indication of residents following the correct guidelines. The not accepted forms of packaging in the Green Waste stream also contained no contamination, however the packaging itself was incorrect using plastic wrap. This shows that residents believe they are using the correct packaging and need further guidance.

The composition of the green waste stream for 2020 can be found in Table 15 and 16. These tables show the total weight (kg) for each material and the percentage (%) composition that material makes up in the stream from a fortnightly sample.

Table 15. Green Waste Stream Total Composition 2020 (kg).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|------------------------|---|----------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Paper | Paper / Newspaper (pieces > A6) | 0.290 | 0.700 | 0.000 | 6.135 | 0.300 | 7.425 |
| | Paper other (shredded / pieces < A6) | 0.000 | 0.015 | 0.000 | 0.000 | 0.000 | 0.015 |
| | Cardboard | 0.180 | 11.720 | 0.185 | 6.590 | 0.440 | 19.115 |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Contaminated soiled paper / cardboard | 0.000 | 0.095 | 0.805 | 0.000 | 0.000 | 0.900 |
| | Other/Mixed (incl. receipts, TetraPak) | 0.000 | 0.000 | 0.000 | 4.420 | 0.055 | 4.475 |
| | Total Paper | 0.470 | 12.530 | 0.990 | 17.145 | 0.795 | 31.930 |
| Food / organic | Fruit, vegetables | 7.540 | 23.980 | 18.030 | 17.250 | 9.340 | 76.140 |
| | Staples | 2.885 | 1.970 | 2.550 | 0.000 | 2.790 | 10.195 |
| | Meat, fish, bones | 0.350 | 2.005 | 0.425 | 0.000 | 1.390 | 4.170 |
| | Dairy, Cooked leftovers | 0.000 | 0.000 | 0.210 | 0.000 | 0.420 | 0.630 |
| | Wrapped / bagged food (accepted forms) | 6.300 | 8.275 | 18.205 | 5.900 | 14.530 | 53.210 |
| | Wrapped / bagged food (non-accepted forms) | 7.735 | 4.690 | 48.270 | 0.000 | 9.845 | 70.540 |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Paper towel / tissues / serviettes / paper napkins | 0.220 | 0.550 | 0.500 | 0.535 | 2.410 | 4.215 |
| | Other | 0.195 | 0.000 | 0.000 | 0.000 | 0.000 | 0.195 |
| | Total Food/Organics | 25.225 | 41.470 | 88.190 | 23.685 | 40.725 | 219.295 |
| Garden / timber | Garden prunings / glass clippings (accepted) | 952.965 | 1004.095 | 923.005 | 1188.800 | 1052.865 | 5121.730 |
| | Wood/timber (accepted) | 3.280 | 0.000 | 0.000 | 17.090 | 0.000 | 20.370 |
| | Other Putrescible | 2.390 | 0.000 | 1.740 | 0.000 | 0.000 | 4.130 |
| | Total Garden/Timber | 958.635 | 1004.095 | 924.745 | 1205.890 | 1052.865 | 5146.230 |
| Textiles | Clothing / shoes (not accepted) | 0.000 | 0.000 | 0.000 | 0.150 | 0.285 | 0.435 |
| | Bedding / pillows / blankets (not accepted) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Other | 0.000 | 0.095 | 0.170 | 0.785 | 0.000 | 1.050 |
| | Total Textiles | 0.000 | 0.095 | 0.170 | 0.935 | 0.285 | 1.485 |
| Glass | Drink Bottles (recyclable) | 0.000 | 0.000 | 0.000 | 0.145 | 0.000 | 0.145 |
| | Bottles - other (recyclable) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Jars / containers (recyclable) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Glass fines | 0.000 | 0.000 | 0.000 | 0.000 | 0.015 | 0.015 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.025 | 0.025 |
| | Total Glass | 0.000 | 0.000 | 0.000 | 0.145 | 0.040 | 0.185 |

Table 15 Cont. Green Waste Stream Total Composition 2020 (kg).

| | | | | | | | |
|------------------------------|--------------------------------------|-------|-------|--------|--------|-------|--------|
| Plastic | Drink Bottles (recyclable) | 0.015 | 0.235 | 0.040 | 0.200 | 0.000 | 0.490 |
| | Bottles - other (recyclable) | 0.000 | 0.385 | 0.000 | 0.000 | 0.230 | 0.615 |
| | Hard plastic containers (recyclable) | 0.055 | 0.255 | 0.130 | 0.160 | 0.075 | 0.675 |
| | Hard plastics (not accepted) | 0.115 | 0.000 | 0.000 | 0.075 | 0.000 | 0.190 |
| | Soft plastics (not accepted) | 1.110 | 1.155 | 0.450 | 0.445 | 0.325 | 3.485 |
| | Polystyrene (not accepted) | 0.000 | 0.000 | 0.045 | 0.010 | 0.000 | 0.055 |
| | Small plastics (not accepted) | 0.000 | 0.035 | 0.000 | 0.000 | 0.010 | 0.045 |
| | Other | 0.000 | 0.000 | 0.045 | 0.000 | 0.000 | 0.045 |
| | Total Plastic | 1.295 | 2.065 | 0.710 | 0.890 | 0.640 | 5.600 |
| Metal | Aluminium cans (accepted) | 0.040 | 0.030 | 0.000 | 0.010 | 0.045 | 0.125 |
| | Aluminium foil / trays (accepted) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Steel cans (accepted) | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 |
| | Aerosol cans (accepted, if empty) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total Metal | 0.040 | 0.030 | 0.000 | 0.010 | 0.065 | 0.145 |
| Potentially hazardous | Paint | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Fluorescent globes | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Nappies/Hygiene products | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 |
| | Household chemicals | 0.000 | 0.000 | 0.175 | 0.000 | 0.000 | 0.175 |
| | Pharmaceuticals / medical / syringes | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Aerosol cans (partial / full) | 0.000 | 0.000 | 0.000 | 0.000 | 0.235 | 0.235 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total Potentially Hazardous | 0.000 | 0.000 | 0.175 | 0.000 | 0.255 | 0.430 |
| E-Waste | Batteries - household / dry cell | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Batteries - other / car | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Electrical items | 0.000 | 0.000 | 0.000 | 0.000 | 0.110 | 0.110 |
| | Other | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Total E-Waste | 0.000 | 0.000 | 0.000 | 0.000 | 0.110 | 0.110 |
| Other | Dust/ dirt/ rock/inert | 0.000 | 1.050 | 8.275 | 2.725 | 0.000 | 12.050 |
| | Ash | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Soil | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Non recyclable timber/wood | 8.360 | 8.415 | 4.885 | 0.000 | 0.640 | 22.300 |
| | Building materials | 0.000 | 0.150 | 1.490 | 1.780 | 3.560 | 6.980 |
| | Gardening equipment | 0.000 | 0.000 | 0.000 | 0.000 | 0.040 | 0.040 |
| | Bagged recyclables | 0.800 | 0.000 | 0.000 | 15.060 | 0.000 | 15.860 |
| | Rubbish loose / Bagged rubbish | 0.000 | 0.000 | 0.000 | 0.000 | 2.090 | 2.090 |
| | Other | 0.000 | 0.000 | 0.000 | 0.095 | 0.000 | 0.095 |
| | Total Other | 9.160 | 9.615 | 14.650 | 19.660 | 6.330 | 59.415 |

Table 16. Green Waste Stream Total Composition 2020 (kg,%).

| | | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|------------------------|---|--------|---------|-----------|----------|--------|--------|
| Paper | Paper / Newspaper (pieces > A6) | 0.03% | 0.07% | 0.00% | 0.48% | 0.03% | 0.14% |
| | Paper other (shredded / pieces < A6) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Cardboard | 0.02% | 1.10% | 0.02% | 0.52% | 0.04% | 0.35% |
| | Liquid Paperboard (LPB milk/juice) (accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Contaminated soiled paper / cardboard | 0.00% | 0.01% | 0.08% | 0.00% | 0.00% | 0.02% |
| | Other/Mixed (incl. receipts, TetraPak) | 0.00% | 0.00% | 0.00% | 0.35% | 0.00% | 0.08% |
| Food / organic | Fruit, vegetables | 0.76% | 2.24% | 1.75% | 1.36% | 0.85% | 1.39% |
| | Staples | 0.29% | 0.18% | 0.25% | 0.00% | 0.25% | 0.19% |
| | Meat, fish, bones | 0.04% | 0.19% | 0.04% | 0.00% | 0.13% | 0.08% |
| | Dairy, Cooked leftovers | 0.00% | 0.00% | 0.02% | 0.00% | 0.04% | 0.01% |
| | Wrapped / bagged food (accepted forms) | 0.63% | 0.77% | 1.77% | 0.47% | 1.32% | 0.97% |
| | Wrapped / bagged food (non-accepted forms) | 0.78% | 0.44% | 4.69% | 0.00% | 0.89% | 1.29% |
| | Compostable / biodegradable / degradable packaging / items (not accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Paper towel / tissues / serviettes / paper napkins | 0.02% | 0.05% | 0.05% | 0.04% | 0.22% | 0.08% |
| | Other | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Garden / timber | Garden prunings / glass clippings (accepted) | 95.79% | 93.85% | 89.64% | 93.73% | 95.53% | 93.72% |
| | Wood/timber (accepted) | 0.33% | 0.00% | 0.00% | 1.35% | 0.00% | 0.37% |
| | Other Putrescible | 0.24% | 0.00% | 0.17% | 0.00% | 0.00% | 0.08% |
| Textiles | Clothing / shoes (not accepted) | 0.00% | 0.00% | 0.00% | 0.01% | 0.03% | 0.01% |
| | Bedding / pillows / blankets (not accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.00% | 0.01% | 0.02% | 0.06% | 0.00% | 0.02% |
| Glass | Drink Bottles (recyclable) | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% |
| | Bottles - other (recyclable) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Jars / containers (recyclable) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Glass fines | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Plastic | Drink Bottles (recyclable) | 0.00% | 0.02% | 0.00% | 0.02% | 0.00% | 0.01% |
| | Bottles - other (recyclable) | 0.00% | 0.04% | 0.00% | 0.00% | 0.02% | 0.01% |
| | Hard plastic containers (recyclable) | 0.01% | 0.02% | 0.01% | 0.01% | 0.01% | 0.01% |
| | Hard plastics (not accepted) | 0.01% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% |
| | Soft plastics (not accepted) | 0.11% | 0.11% | 0.04% | 0.04% | 0.03% | 0.06% |
| | Polystyrene (not accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Small plastics (not accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Table 16 Cont. Green Waste Stream Total Composition 2020 (kg,%).

| | | | | | | | |
|------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|
| Metal | Aluminium cans (accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Aluminium foil / trays (accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Steel cans (accepted) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Aerosol cans (accepted, if empty) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Potentially hazardous | Paint | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Fluorescent globes | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Nappies/Hygiene products | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Household chemicals | 0.00% | 0.00% | 0.02% | 0.00% | 0.00% | 0.00% |
| | Pharmaceuticals / medical / syringes | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Aerosol cans (partial / full) | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | 0.00% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| E-Waste | Batteries - household / dry cell | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Batteries - other / car | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Electrical items | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% |
| | Other | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other | Dust/ dirt/ rock/inert | 0.00% | 0.10% | 0.80% | 0.21% | 0.00% | 0.22% |
| | Ash | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Soil | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Non recyclable timber/wood | 0.84% | 0.79% | 0.47% | 0.00% | 0.06% | 0.41% |
| | Building materials | 0.00% | 0.01% | 0.14% | 0.14% | 0.32% | 0.13% |
| | Gardening equipment | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | Bagged recyclables | 0.08% | 0.00% | 0.00% | 1.19% | 0.00% | 0.29% |
| | Rubbish loose / Bagged rubbish | 0.00% | 0.00% | 0.00% | 0.00% | 0.19% | 0.04% |
| | Other | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% |

Appendix 1.

Sorting Categories

| PRIMARY CLASSIFICATION CATEGORY | SECONDARY CLASSIFICATION CATEGORY |
|---------------------------------|---|
| Material Type (10) | Material Detail (61) |
| Paper | Paper / Newspaper (pieces > A6) |
| | Paper other (shredded / pieces < A6) |
| | Cardboard |
| | Liquid Paperboard (LPB milk/juice) (accepted) |
| | Contaminated soiled paper / cardboard |
| | Other/Mixed (incl. receipts, TetraPak) |
| Food / organic | Fruit, vegetables |
| | Staples |
| | Meat, fish, bones |
| | Dairy, Cooked leftovers |
| | Wrapped / bagged food (accepted forms) |
| | Wrapped / bagged food (non-accepted forms) |
| | Compostable / biodegradable / degradable packaging / items (not accepted) |
| | Paper towel / tissues / serviettes / paper napkins |
| Garden / timber | Other |
| | Garden prunings / glass clippings (accepted) |
| | Wood/timber (accepted) |
| Textiles | Other Putrescible |
| | Clothing / shoes (not accepted) |
| | Bedding / pillows / blankets (not accepted) |
| | Other |
| Glass | Drink Bottles (recyclable) |
| | Bottles - other (recyclable) |
| | Jars / containers (recyclable) |
| | Glass fines |
| | Other |
| Plastic | Drink Bottles (recyclable) |
| | Bottles - other (recyclable) |
| | Hard plastic containers (recyclable) |
| | Hard plastics (not accepted) |
| | Soft plastics (not accepted) |
| | Polystyrene (not accepted) |
| | Small plastics (not accepted) |
| Metal | Other |
| | Aluminium cans (accepted) |
| | Aluminium foil / trays (accepted) |
| | Steel cans (accepted) |
| | Aerosol cans (accepted, if empty) |
| Potentially hazardous | Other |
| | Paint |
| | Fluorescent globes |
| | Nappies/Hygiene products |
| | Household chemicals |
| | Pharmaceuticals / medical / syringes |
| | Aerosol cans (partial / full) |
| E-Waste | Other |
| | Batteries - household / dry cell |
| | Batteries - other / car |
| | Electrical items |
| Other | Other |
| | Dust/ dirt/ rock/inert |
| | Ash |
| | Soil |
| | Non recyclable timber/wood |
| | Building materials |
| | Gardening equipment |
| | Bagged recyclables |
| | Rubbish loose / Bagged rubbish |

Appendix 2.

Gallery



Rubbish Sample as Presented.



Green Waste Sample as Presented.



Recycling Sample as Presented.



Food Waste Presented in Green Waste Sample.

Appendix 3.

Collection Suburbs per Day and Property Types.

| | Number of Households | | | Suburbs Collected | Number of Streets | Bin Size and Collection Frequency |
|-----------|----------------------|------|-------|--|-------------------|-----------------------------------|
| | SUDs | MUDs | Total | | | |
| Monday | 39 | 11 | 50 | Ashwood, Mount Waverley, Glen Waverley | 4 | 120L weekly, with optional 240L |
| Tuesday | 32 | 18 | 50 | Chadstone, Mount Waverley, Glen Waverley | 5 | |
| Wednesday | 31 | 19 | 50 | Chadstone, Mount Waverley, Glen Waverley, Wheelers Hill | 5 | |
| Thursday | 47 | 3 | 50 | Hughesdale, Oakleigh, Huntingdale, Mulgrave, Wheelers Hill | 5 | |
| Friday | 33 | 17 | 50 | Clayton, Mulgrave | 6 | |
| Total | 182 | 68 | 250 | - | 25 | - |

Appendix 4.

Sustainability Victoria Guidelines

Below is the link to the Sustainability Victoria Resource used to form the methodology of this report as per Council guidelines.

<http://www.sustainability.vic.gov.au/publications-and-research/research/council-waste-and-recycling-data/guidelines-for-auditing-kerbside-waste-in-vic>