

Australian Litter Measure

LITTER SURVEY *Perth Metropolitan Area* 2023 – 2024

This project is supported by the Waste Authority through the Waste Avoidance and Resource Recovery Account.

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Executive Summary

This report presents the findings of Australian Litter Measure litter surveys completed by Perth NRM across the Perth metropolitan area during the 12 months to June 2024. To date, five bi-annual surveys have been completed using this method and this report includes the full results of the November 23 and May 24 surveys, as well as a preliminary overview of trends/patterns seen across the five surveys completed to date.

For 2023/24, across 107,677 square metres surveyed, 10,700 items of litter were counted, with a calculated volume of 740.99 litres.

Cigarette Butts and filters were found to be the most common item by count, while **Construction Materials** were the highest item by volume. On a raw basis, **Industrial** sites contained the highest litter by count and volume, however once figures are normalised to account for the varying square metres surveyed, **Retail** moves into top spot by count. **Beaches** had the lowest litter levels by count and volume. **Plastic** represented the highest material found by count (56%) and volume (32%).

In this report litter data has been provided by site types and key categories to establish a basis for trend analysis under this newly developed litter count method.

About Perth NRM

Perth NRM is a not-for-profit organisation, in the natural resources management (NRM) sector.

Perth NRM has successfully partnered with industry groups, local, state and federal government departments, educational institutions, and land care groups to promote long-term outcomes in water quality, biodiversity enhancement, healthy coastal environments, cultural heritage preservation and sustainable agricultural practices. Through collaborative natural resource management initiatives, we contribute to the social, economic, and environmental well-being of the Perth region.

Our purpose: Empowering people to positive ecological impact.

Our vision: We live in thriving natural ecosystems with sustainable food production.

1.0 Project Summary

Project Background

The Australian Litter Measure (“AusLM”) is a newly developed litter count method, designed to capture high volumes of standardised litter data across all states of Australia. In May 22 an initial baseline litter survey was completed by Perth NRM utilising this method, which served to identify key items and indicators for litter in the Perth metropolitan area. Following this initial survey, Keep Australia Beautiful Council (‘KABC’) has engaged Perth NRM for a continuous Litter Survey that is scheduled twice a year over a three-year period. These litter surveys will help to identify trends in litter levels, as well as assist KABC to track the efficacy of its programs.

The full findings of the November 23 and May 24 litter surveys are contained in this report. Reports from previously completed litter surveys (including the May 22 baseline litter survey) can be obtained from the Keep Australia Beautiful WA website.

1.0 Project Summary

Scope

Over a two-week period in both November 23 and May 24, litter surveys were conducted at 57 sites across ten local government jurisdictions within the Perth Metropolitan area. The litter surveys were completed following the guidelines contained in the AusLM Field Guide (a comprehensive nationally applicable handbook that provides detailed guidance on all aspects of the AusLM litter count method). The guide defines six distinct site types where surveys should be undertaken, summarised in the below table. The guide also prescribes the relevant parameters for the area to survey at each of the site types, and the number of transects (straight lines where litter counting is undertaken) to survey. In most cases, one of each site type was surveyed in each local government area.

Site type	Description
Beach	A mostly sandy beach frequently visited by people for activities such as swimming, walking, other recreation and relaxation.
Residential Area	A street/collection of streets in a residential area. The street has homes, units, or apartments on both sides of the street
Industrial Area	A street/collection of streets in an industrial area.
Retail Area	A street/collection of streets within a retail precinct (i.e., shopfronts).
Recreational Park	A public outdoor park mostly covered by grass and frequently visited by individuals and families for recreation and leisure activities.
Main roads	Straight open stretches of sealed road with wide verges. Roads that typically act as an arterial for traffic between and around population centres.

The table below provides an overview of the number of sites and transects surveyed in this program of litter surveys.

Location	Number of sites surveyed*	Number of transects surveyed
LGA 01	6	28
LGA 02	5*	23
LGA 03	6	28
LGA 04	6	28
LGA 05	5*	23
LGA 06	6	28
LGA 07	6	28
LGA 08	6	28
LGA 09	5*	23
LGA 10	6	28
Total	57	265

* Three local government areas did not contain a suitable site (river or coastal) within their boundary, therefore those LGA areas only had 5 sites surveyed.

1.0 Project Summary

Survey Methodology

KABC selected the 57 sites to be surveyed based on the AusLM Site Type assessment criteria (attached at Appendix 1).

Perth NRM engaged a team of litter surveyors to complete the periods of surveys. Prior to undertaking the surveys, the team received comprehensive theory and field-based training in the AusLM method.

The litter surveyors conducting the surveys worked in pairs, completing one site per team, per day. Data was collected on tablet devices, on an Excel workbook. Litter observed was classified based on the 247 items in the count sheet in the current AusLM Field Guide (refer Appendix 2).

Both team members set up the transects and collected site context information (to determine whether certain factors had an impact on the litter levels, such as the presence of waste and recycling bins, BBQ areas in parks and council bin days). For the litter counting, one “spotter” called out the items observed, while the other surveyor recorded the data into the workbook.

Perth NRM has undertaken the data collation, review and analysis of the final findings and compilation of the written report.

Measurement Methodology

AusLM uses a standing stock visual litter count. This method was chosen as the most appropriate way of answering questions about broad trends and achievements at the jurisdictional scale. Under this method, litter items are counted and categorised in a defined area and litter is left in place. It is a relatively fast and cost-effective method that indicates the extent and composition of litter at a site at a point in time.

1.0 Project Summary

Data Calculation Basis

The following calculations have been utilised throughout the report:

Number of items (#)	total number of individual items counted
Items (#) per 1000m²	$\frac{\text{total number of individual items counted}}{\text{total square metres surveyed}} \times 1000$
Volume – litres (l)	total number of individual items counted x standard volume per item*
Volume (l) per 1000m²	$\frac{\text{total number of individual items counted x standard volume per item*}}{\text{total square metres surveyed}} \times 1000$

*This estimated standard volume for each item is attached at Appendix 3.

Data Periods Presentation

This report contains two periods of survey data. Colours have been used to identify when tables/graphs include data from a discrete period; specifically **Blue headers/tables** contain data for November 23 and **Orange headers/tables** contain data for May 24. Figures referenced as annual or 2023/24 and **green headers/tables**, indicate data for the two surveys has been aggregated (average of the two periods).

2.0 Overall Litter Data

Annual Litter Data and Key Findings

The 2023/24 surveys completed saw a significant reduction in both count and volume of litter recorded in comparison to the previous three surveys completed, despite a marginally higher area surveyed. While this is a positive observation, it is too soon to predict any consistency of falling litter numbers or volumes or seasonality of litter distribution.

Annual Litter Data					
	Total Area Surveyed	Total Litter Items	Litter Items /1000m2	Total Litter Volume (l)	Litter Volume (l)/1000m2
2023/24	107,677	10,700	99.37	740.99	6.88
2022/23	104,876	17,195	163.95	1,129.24	10.77
May 22 Baseline	104,726	18,245	174.22	1,145.65	10.94

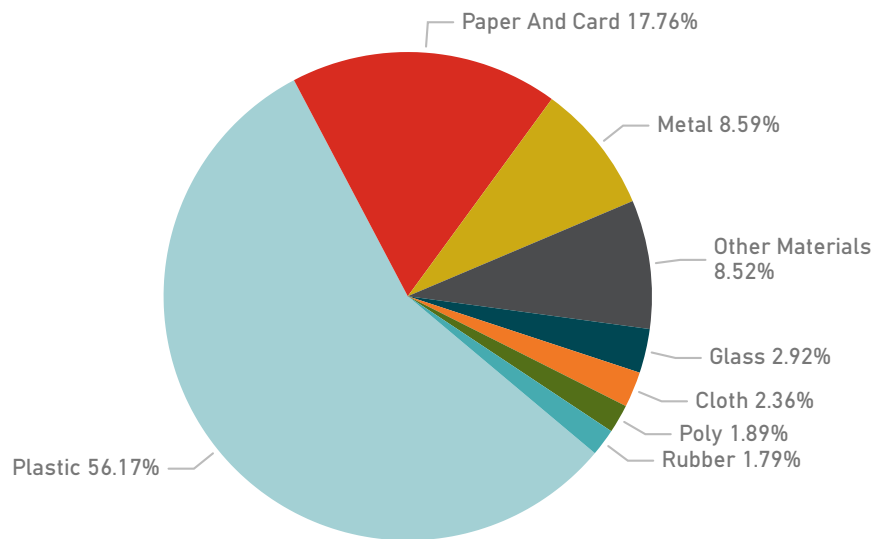
Aggregated litter data by site type for 2023/24 year is provided below, with more detailed commentary on the individual survey periods provided later in this section.

2023/24 Summary Data - By Site Type					
Site Type	Total Area Surveyed	Total Litter Items	Litter Items /1000m2	Total Litter Volume (l)	Litter Volume /1000m2
Beach	7,386.75	161	21.73	13.52	1.83
Retail	13,212.81	2,425	183.50	118.45	8.96
Residential	36,370.81	1,494	41.08	126.47	3.48
Industrial	21,630.10	3,206	148.22	278.87	12.89
Park	11,463.90	502	43.75	26.86	2.34
Main Road	17,612.50	2,914	165.42	176.80	10.04
TOTAL	107,676.87	10,700	99.37	740.99	6.88

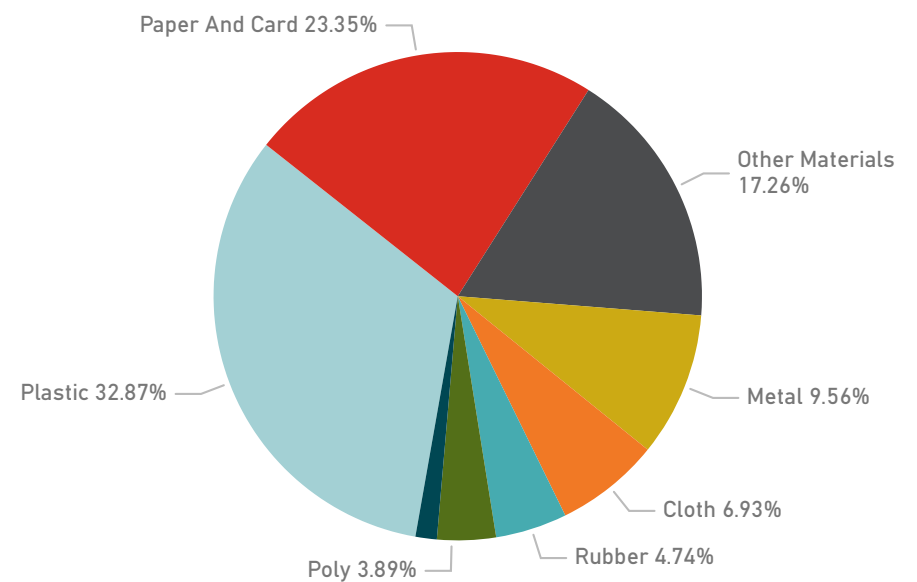
2.0 Overall Litter Data

- Consistent with the 2022/23 report, the top litter items by count in 2023/24 were **Cigarette butts and filters**, followed by **Hard plastic fragment – small** and **Paper and card fragment – small**.
- By volume, **Construction materials** showed the highest calculated volume in 2023/24, followed by **Paper and card food packaging** and **Clothing**.
- By raw count and volume, **Industrial** was the highest littered site, with **Main Roads** in second place, however once figures are normalised to account for the varying square metres surveyed, **Retail** moves into top spot by count. Further detail on trends at each of the Site Types is contained in *Section 3.0 Litter Data by Site Type*.
- Of all litter items counted in 2023/24, 56% were made of **Plastic** (including Hard Plastic, Soft Plastic and Fragments). From a volume perspective, **Plastic** items accounted for 33% of the litter, with **Paper and Card** the second largest contributor, at 23% of total volume.

Litter Count by Source Material



Litter Volume by Source Material



2.0 Overall Litter Data

Top 15 Items by Count		
Item	Number of Items (#)	Items (#) /1000m2
Cigarette butts and filters	2,194	20.38
Hard plastic fragment - small	804	7.46
Paper and Card fragment - small	743	6.90
Food/confect. Wrappers	504	4.68
Soft plastic fragment - small	495	4.60
Hard plastic fragment - medium	359	3.33
Other metal item	343	3.19
Paper and Card fragment - medium	270	2.51
Lids - Beverage container lids /caps	252	2.34
Paper tissues/napkin	247	2.29
Soft plastic fragment - medium	245	2.28
Glass fragment - small	238	2.21
Lids, bottle tops, can ring pulls	221	2.05
Construction materials	166	1.54
Shopper docket, tickets/receipts	154	1.43

Top 15 Items by Volume		
Item	Volume of Items (l)	Volume (l)/1000m2
Construction materials	59.76	0.55
Paper/card food packaging	57.25	0.53
Clothing	36.5	0.34
Non-Food package	34.5	0.32
Other metal item	34.3	0.32
Tyres	30	0.28
Other Food Package	26.75	0.25
Food/confect. Wrappers	25.2	0.23
Packages & boxes	22.5	0.21
Fruit/vegetable/food	19.9	0.18
Other polystyrene item	17	0.16
Strapping band	15.7	0.15
Newspaper/Magazine	15	0.14
Junk mail / free circulars	14.25	0.13
Other cloth item	12.6	0.12

2.0 Overall Litter Data

Period Litter Data and Key Findings

Findings of the distinct survey periods of November 23 and May 24 are discussed below.

2023/24 Period Litter Data					
	Total Area Surveyed	Total Litter Items	Litter Items /1000m2	Total Litter Volume (l)	Litter Volume (l)/1000m2
May 24	108,529.45	10,118	93.23	666.53	6.14
November 23	106,824.30	11,282	105.61	815.45	7.63

- In the November 23 survey, **Main Roads** were the sites in which most litter was recorded by count (3,261) and second highest by volume (218.82 litres). The total count varied from 43 items to 1,467 items per site, with one location in particular driving the high litter levels for this site type, accounting for 44.98%. **Industrial** sites contained the second highest litter levels by count (3,083 items) and the highest litter by volume (310.28 litres). Industrial showed a smaller range of 96 to 1,025 items, indicating the elevated litter levels are a more consistent trend across these sites.
- In the May 24 survey, **Industrial** sites recorded the highest litter by count (3,329 items) and volume (247.47 litres). Whilst the litter count at **Industrial** sites showed a slight increase between the periods, the calculated volume reduced significantly, driven by a reduction in the number of items recorded with a high calculated volume, such as **Other Metal Items** and **Other Poly Items** at this site type in May 24.
- In November 23, **Beaches** and **Parks** were the least littered sites, by count and volume, together accounting for only 5.32% of the total litter items by count and 4.14% by volume. A slight uplift was seen in May 24, together accounting for 7.16% of the items counted, or 7.05% of the volume.
- Consistent with all previous AusLM litter surveys completed in Perth, **Cigarette butts and filters** were the highest item by count in both November 23 and May 24. In November 23, total **Cigarette butts and filters** counted were 2,163, accounting for 19.17% of the total items or 0.53% of the total volume. In May 24, total **Cigarette butts and filters** counted were 2225, accounting for 21.99% of total items of 0.67% of total volume. They were highly concentrated in **Retail, Main Road** and **Industrial** sites, with those locations accounting for greater than 90% of the **Cigarette butts and filters** recorded in both survey periods. Cigarette butt bins were not observed in any of those sites.
- In November 23, the **Takeaway food packaging** category represented 13.46% of total items and 18.27% of the volume. In

2.0 Overall Litter Data

May 24 this alters to 15.72% of total items and 14.92% of total volume. Consistent in both November 23 and May 24. the top items by count within this category were **Food and confectionary wrappers**, followed by **Lids - Beverage container lids / caps** (plastic) and **Lids, bottle tops, and can ring pulls** (metal). By volume, **Paper and card food packaging** represented the highest contributor within this category in both survey periods.

- **Fragments** made up a significant portion of litter items counted, totalling 4,414 across all sizes and categories in November 23, and 3,854 in May 24. This equates to 39.12% of total litter items counted in November 23 and 38.09% in May 24. In November 23, **Paper and Card** were the most common material by count, accounting for 1,338 or 30.31% of the total fragments. As was the case in 2022/23, this alters to **Hard plastic** in the May survey period, with 1,383 fragments counted in May 24, accounting for 35.88% of the total fragments observed.
- Data on **Beverage Containers** was collected, including segregation of those eligible for a 10c refund, under the Container Deposit Scheme ("CDS"). In November 23, there was a total of 133 **Beverage Containers** counted, which included 105 that were classified as eligible for a refund under the CDS and a further 28 that were not. In May 24, 79 **Beverage Containers** were recorded, including 70 that were classified as eligible for a refund under the CDS. The reduction between the two periods is driven by notably lower counts at both **Main Road** and **Industrial** sites; in November 23 together these sites contributed 83 **CDS Beverage Containers**, and this decreases to 46 in May 24.

2.0 Overall Litter Data

Top Litter Item by Count and Site Type November 23		
Site Type	Item	Total Items
Beach	Soft plastic fragment - small	13
Retail	Cigarette Butts and Filters	1,448
Residential	Hard plastic fragment - small	205
Industrial	Other metal item	446
Park	Paper and card fragment - small	63
Main Road	Paper and card fragment - small	420

Top Litter Item by Count and Site Type May 24		
Site Type	Item	Total Items
Beach	Hard plastic fragment - small	20
Retail	Cigarette Butts and Filters	856
Residential	Cigarette Butts and Filters	162
Industrial	Cigarette Butts and Filters	651
Park	Paper and card fragment - small	71
Main Road	Cigarette Butts and Filters	488

Top Litter Item by Volume and Site Type November 23		
Site Type	Item	Total Volume (l)
Beach	Fruit/vegetable/food	2.2
Retail	Paper/card food packaging	26.5
Residential	Construction Materials	10.8
Industrial	Other metal item	44.6
Park	Bag - Heavy Boutique	2
Main Road	Paper/card food packaging	25

Top Litter Item by Volume and Site Type May 24		
Site Type	Item	Total Volume (l)
Beach	Rope/string	2.2
Retail	Clothing	8
Residential	Construction Materials	13.68
Industrial	Construction Materials	46.44
Park	Other Food package	4
Main Road	Paper/card food packaging	13.5

2.0 Overall Litter Data

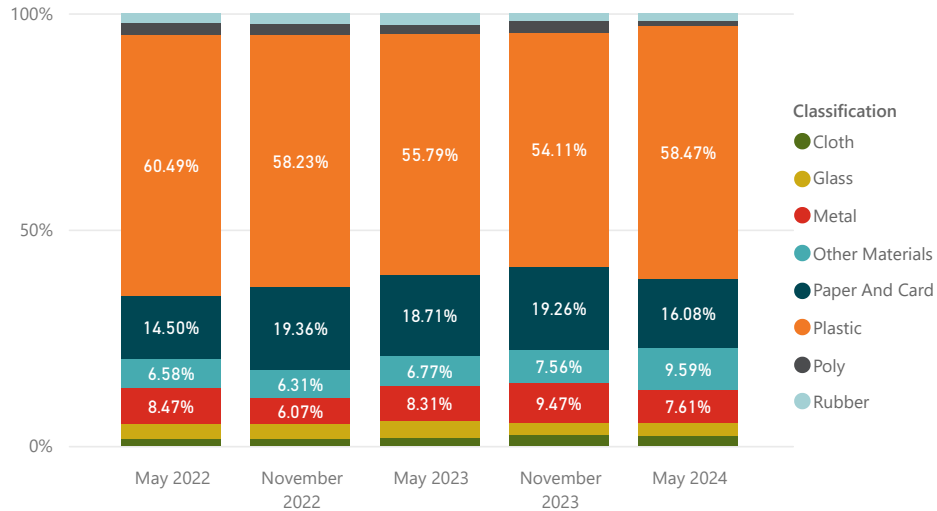
Comparison with Previous Periods

- Whilst the AusLM litter survey method is still in the early stages of adoption, we would anticipate some variances between periods driven by learning and bedding in of the guidelines and methodology. Also of note in relation to the 2023/24 figures; Perth had experienced an extended dry period, with just 19.2mm of year to date rainfall in the four months to April 24 (compared to an average of 88.4mm¹). This could have impacted both the movement of litter, as well as the level of mowing in public spaces, both which stand to influence litter levels observed. Whilst it is considered premature to attribute or predict any consistency of falling litter numbers or volumes, initial trends between periods have been summarised below.
- As highlighted in the **Litter Items by Period** graph, when comparing the period data for the five surveys completed to date, there is a significant reduction in total items counted (-8,127 between May 22 and May 24) noted. Of this reduction, 61% is attributable to a drop in **Fragments** (-3,204) and **Cigarette Butt and filters** (-1,785). Whilst all other items have shown a reduction of 3,039, the small but very prevalent items of **Fragments** and **Cigarette butts and filters** account for the largest portion of the reduced count. While the reduced total litter items by count is closely linked to **Fragments** and **Cigarette butts and filters**, total litter volume has been impacted by varying levels of items with a high calculated volume, such as **Tyres, Paper and Card food packaging**, and **Construction materials**.
- **Litter Count by Source Material** highlights the proportion of **Plastic** litter items had shown a reduction of 6.38% between May 22 and November 23 – however an increase in May 24 reduced that variance to just 2.02%. Between May 22 and May 24, **Other Materials** as a proportion of total litter items counted has shown an increase of 3.01% and Paper and Card has shown an increase of 1.58%.

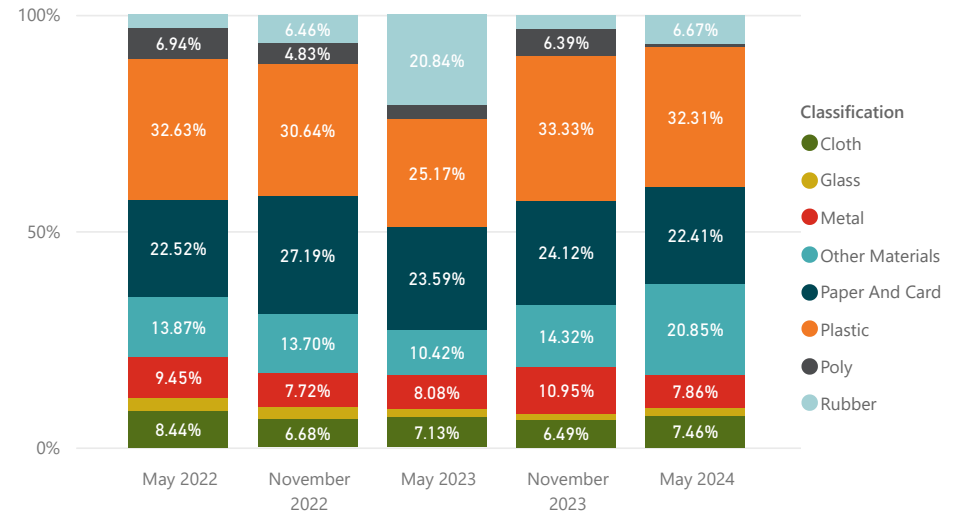
¹ Water Corporation [Rainfall Perth – Daily, Monthly and Yearly – Water Corporation](#) Retrieved 21st Jun 2024

2.0 Overall Litter Data

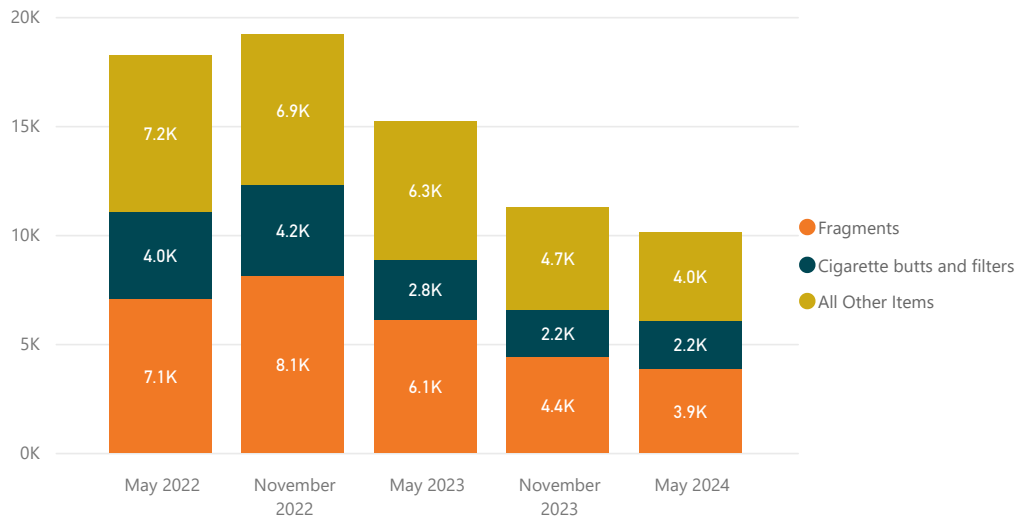
Litter Count by Source Material



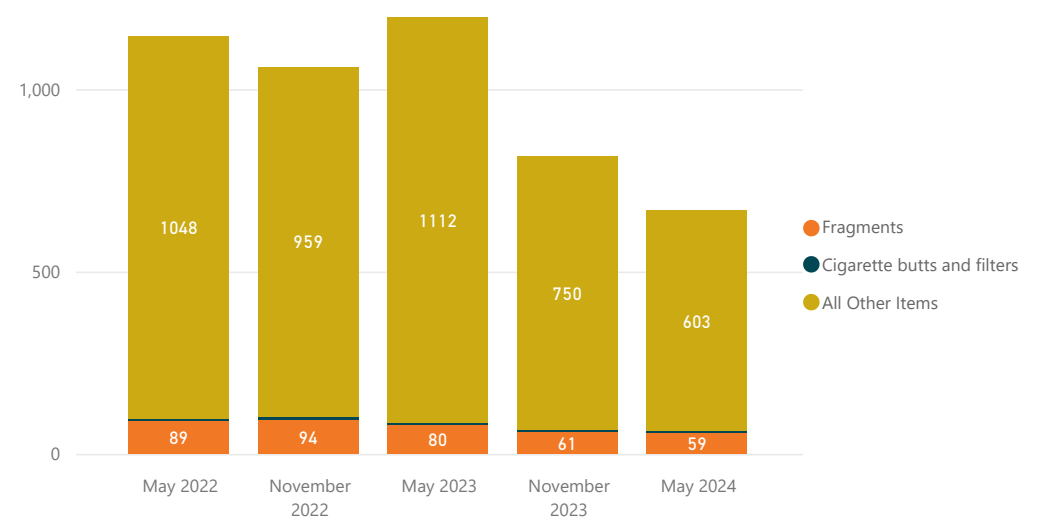
Litter Volume by Source Material



Total Litter Items by Period



Total Litter Volume by Period



3.0 Litter Data by Site Type

The AusLM Field Guide defines litter counts at six distinct site types along with exclusion criteria that can render a site “failed” (refer Appendix 1). Sites that were noted as failed were counted and included, however the reason for failure will be reviewed and may result in alternate sites being selected in future litter audits.

The largest area surveyed was residential sites, with between 35,900 and 36,800 square meters covered. Residential sites consist of variable widths, defined as road’s edge to property boundary, meaning transect widths of up to 10m were surveyed, with an average width of 6.1m. Beach sites were the smallest area surveyed, with between 6,100 and 8,600 square meters surveyed. This lower area, is in part due to three local government areas not having a suitable beach site to audit. In addition, whilst beach sites are defined to include a width of 6m, the length of some beach transects was at times quite short, with the average beach transect length totalling 37m.

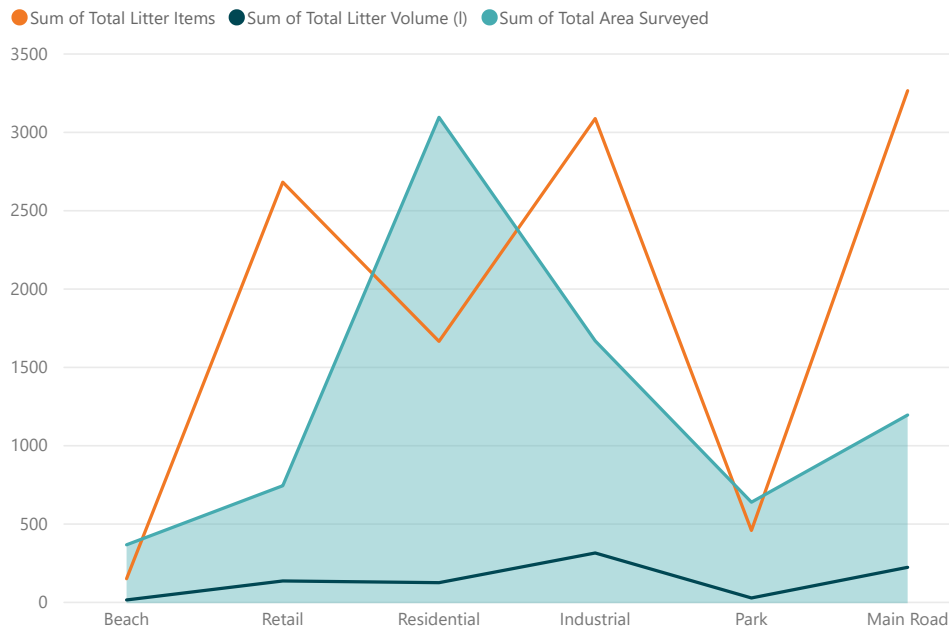
The varying square metres surveyed across the different site types is adjusted for in the normalised (/1,000m²) figures throughout this report, and further outlined below.

Litter Data by Site Type - November 23					
Site Type	Total Area Surveyed	Total Litter Items	Litter Items /1000m ²	Total Litter Volume (l)	Litter Volume /1000m ²
Beach	8,624.40	146	16.93	10.53	1.22
Retail	12,396.00	2,677	215.96	131.74	10.63
Residential	35,909.40	1,661	46.26	120.83	3.36
Industrial	21,640.00	3,083	142.47	310.28	14.34
Park	11,344.50	454	40.02	23.24	2.05
Main Road	16,910.00	3,261	192.84	218.82	12.94
Total	106,824.30	11,282	105.61	815.45	7.63

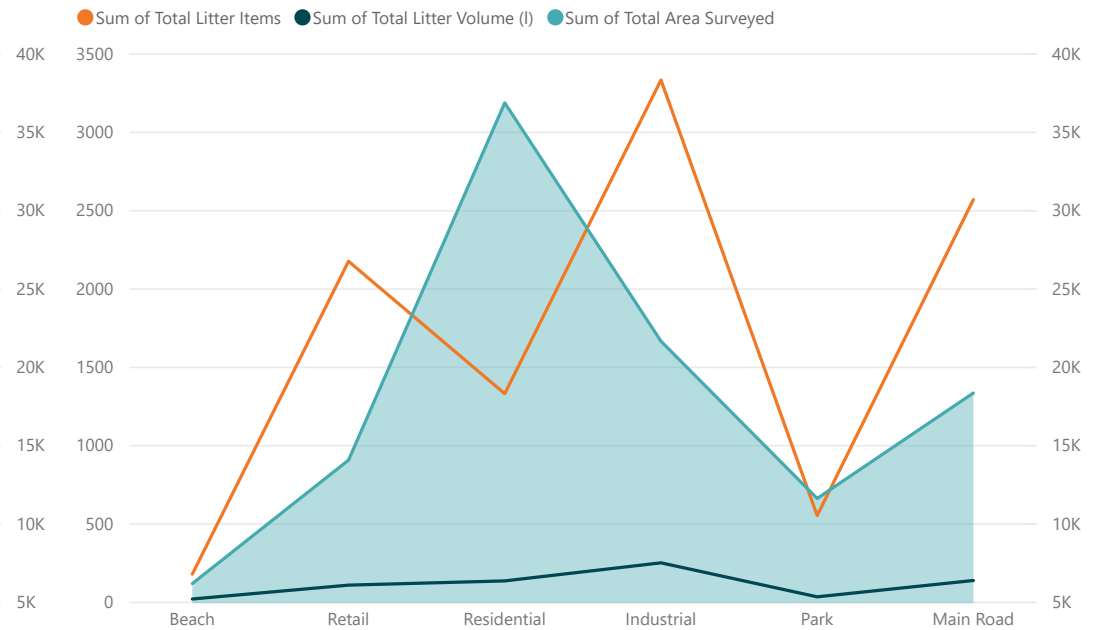
Litter Data by Site Type - May 24					
Site Type	Total Area Surveyed	Total Litter Items	Litter Items /1000m ²	Total Litter Volume (l)	Litter Volume /1000m ²
Beach	6,149.10	175	28.46	16.52	2.69
Retail	14,029.63	2,172	154.82	105.16	7.50
Residential	36,832.22	1,327	36.03	132.11	3.59
Industrial	21,620.20	3,329	153.98	247.47	11.45
Park	11,583.30	549	47.40	30.49	2.63
Main Road	18,315.00	2,566	140.10	134.78	7.36
Total	108,529.45	10,118	93.23	666.53	6.14

3.0 Litter Data by Site Type

Area Surveyed to Litter Items and Volume - November 23



Area Surveyed to Litter Items and Volume - May 24

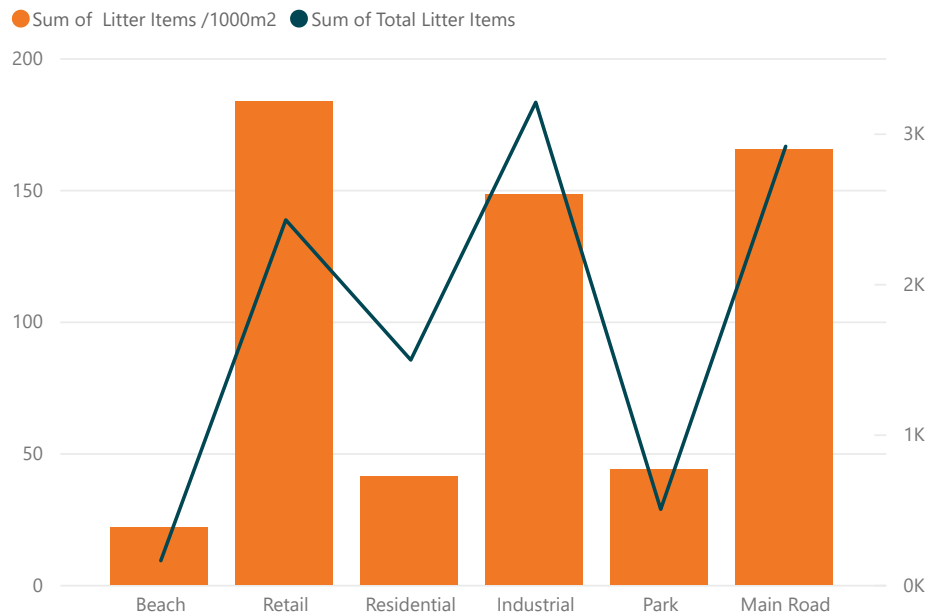


The above **Area Surveyed to Litter Items and Volume** graphs highlights the difference in total square metres surveyed, between the six site types. It confirms the need to also consider the normalised figures (refer Normalised Litter by Site Type section below); as can be seen the higher square metres covered does not always result in a higher litter count/volume.

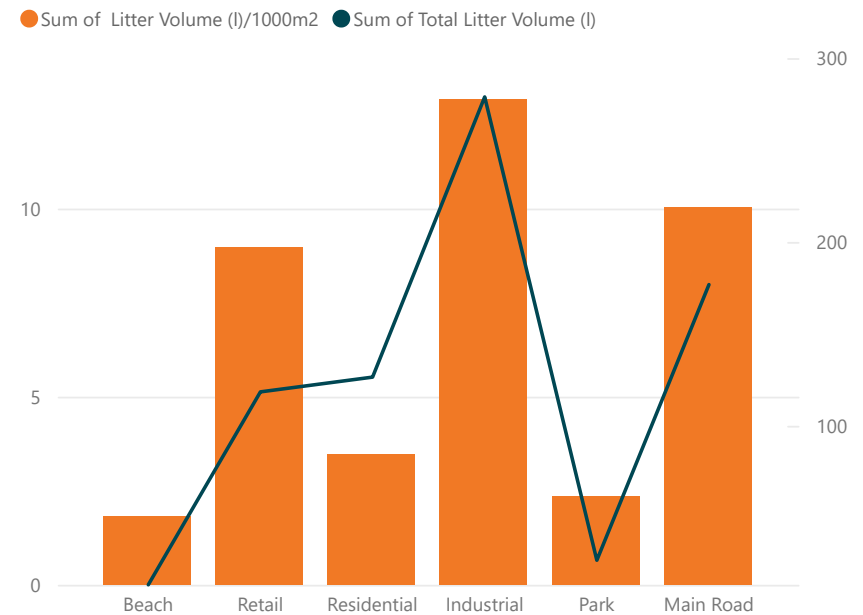
3.0 Litter Data by Site Type

Normalised Litter Data by Site Type

Total Litter Items /1000m2 by Site Type



Total Litter Volume/1000m2 by Site Type



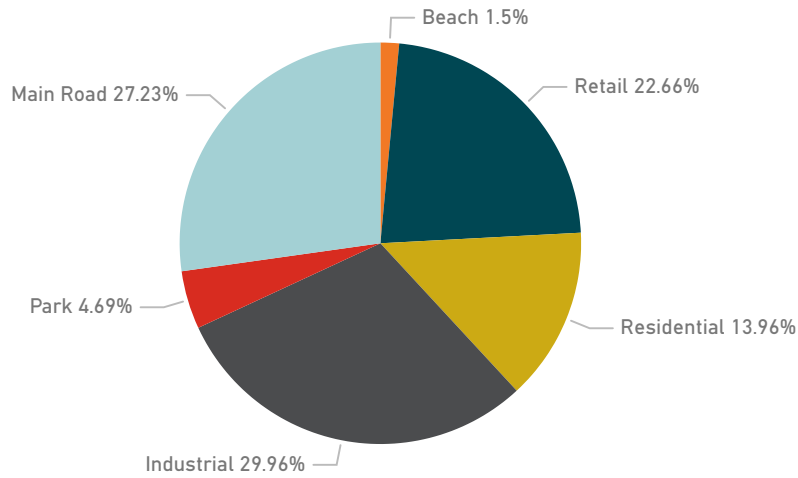
Raw litter information (# of items and calculated volume) has been normalised, to adapt to the fluctuating absolute square meters surveyed across each site type, and to allow more exact examinations of litter density. Normalising the findings included increasing the complete litter items and volume over a standard 1,000 square metre area, to eliminate the effect of the differing square meters surveyed by site type. The formulas to normalise the data are explained in *Section 1.0 Project Summary*.

The normalised figures are tightly lined up with the raw data lines for both absolute litter items and total litter volume, with the largest deviations showing in **Retail** and **Residential** sites.

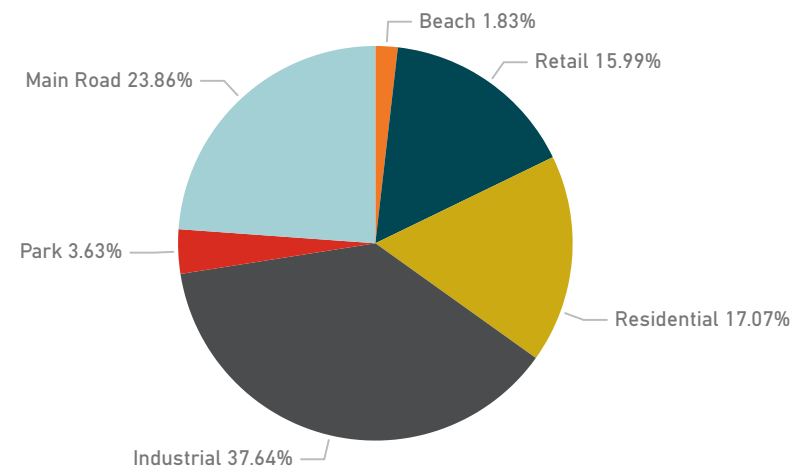
Higher litter items and volume per 1,000m2 than the raw total litter items/volume trendline has been identified in Retail. This is reflecting the relatively low area surveyed (average of 13,000 square metres surveyed) for this site type and infers the litter density at Retail sites is higher than the raw numbers initially indicate – on a normalised basis Retail contains the highest litter by count, of all the site types. Conversely, the discrepancy in Residential sites is a product of the high area covered, with the normalised figures showing that the litter density is well below average at this site type.

3.0 Litter Data by Site Type

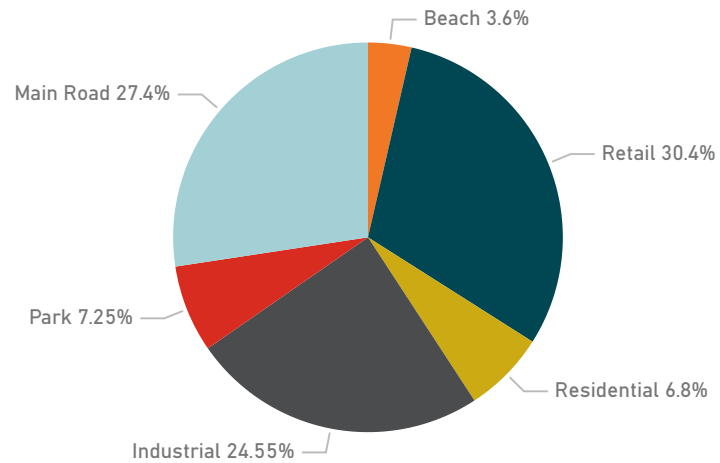
Raw Litter Items by Site Type



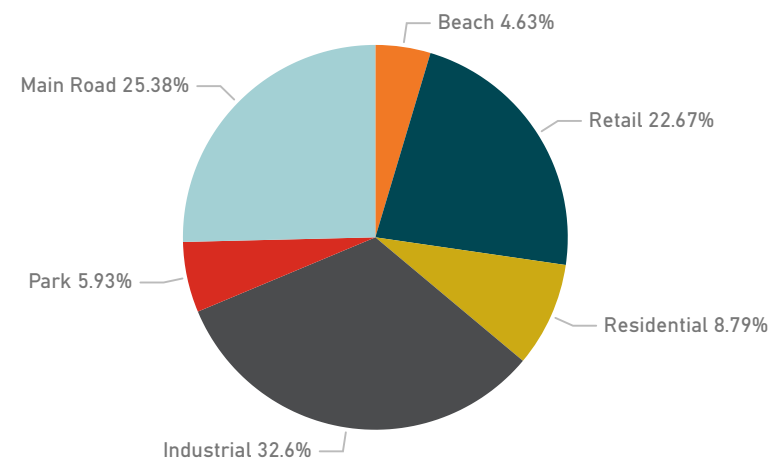
Raw Litter Volume by Site Type



Normalised Litter Items by Site Type



Normalised Litter Volume by Site Type



3.0 Litter Data by Site Type

Site Type Summary – Beach

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	146	175
Total Volume of Items- (l)	10.53	16.52
Items /1000m2	16.93	28.46
Volume (l)/1000m2	1.22	2.69
Highest Site Litter Count - Number (#)	41	81
Highest Site Litter Count - Volume (l)	3.92	7.30
Lowest Site Litter Count - Number (#)	2	3
Lowest Site Litter Count - Volume (l)	0.22	0.13

	Raw	Normalised
Site type count as a % of total items	1.50%	3.60%
Site type volume as a % of total volume	1.83%	4.63%

Top 3 Items by Count (#) – November 23

Soft plastic fragment - small	13
Food/confect. Wrappers	12
Lids - Beverage container lids /caps	12

Top 3 Items by Volume (l) – November 23

Fruit/vegetable/food	2.2
Construction materials	1.08
Rope/string	0.8

Common Site Features/Observations

General waste bins were frequently observed at Beach sites, although not often inside the transects themselves (i.e. they were usually observed on grassed, leisure zones adjoining to the shoreline, or at beach site car parks).

It was noted on several occasions that the litter counted at beach sites had a tendency to accumulate at the dune end of the transect, or in corners of engineered structures.

Top 3 Items by Count (#) – May 24

Hard plastic fragment - small	20
Cigarette butts and filters	18
Soft plastic fragment - small	16

Top 3 Items by Volume (l) – May 24

Rope/string	2.2
Bag - Heavy Supermrkt	2
Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1.5

3.0 Litter Data by Site Type

Site Type Summary – Retail

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	2,677	2,172
Total Volume of Items- (l)	131.74	105.16
Items /1000m2	215.96	154.82
Volume (l)/1000m2	10.63	7.50
Highest Site Litter Count - Number (#)	616	619
Highest Site Litter Count - Volume (l)	25.08	27.86
Lowest Site Litter Count - Number (#)	21	45
Lowest Site Litter Count - Volume (l)	1.07	2.84

	Raw	Normalised
Site type count as a % of total items	22.66%	30.41%
Site type volume as a % of total volume	15.99%	22.67%

Top 3 Items by Count (#) – November 23

Cigarette butts and filters	1,448
Paper and Card fragment - small	121
Food/confect. Wrappers	80

Top 3 Items by Volume (l) – November 23

Paper/card food packaging	26.5
White milk 1000mL-3000mL	10
Non-Food package	9.5

Common Site Features/Observations

On a normalised basis, Retail sites account for the highest litter by count, indicating litter density at these sites is elevated. In both survey periods, **Cigarette butts and filters** continued to be the highest counted litter item at Retail sites.

Although recycling bins were not frequently observed at Retail sites, litter bins for general waste items were commonly noted. Evidence of cleaning was also observed on two occasions each period, indicating that the quantity of items littered at these site types may be higher still, if it wasn't for this mitigating action.

Several transects included tables, benches and garden beds. It was noted that litter had a tendency to accumulate in garden beds and around seating areas.

Top 3 Items by Count (#) – May 24

Cigarette butts and filters	856
Paper and Card fragment - small	110
Food/confect. Wrappers	103

Top 3 Items by Volume (l) – May 24

Clothing	8
Packages & boxes	7
Other Food Package	7

3.0 Litter Data by Site Type

Site Type Summary – Residential

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	1,661	1,327
Total Volume of Items- (l)	120.83	132.11
Items /1000m2	46.26	36.03
Volume (l)/1000m2	3.36	3.59
Highest Site Litter Count - Number (#)	709	330
Highest Site Litter Count - Volume (l)	31.85	43.93
Lowest Site Litter Count - Number (#)	40	62
Lowest Site Litter Count - Volume (l)	2.93	3.80

	Raw	Normalised
Site type count as a % of total items	13.96%	6.81%
Site type volume as a % of total volume	17.07 %	8.79%

Top 3 Items by Count (#) – November 23

Hard plastic fragment - small	205
Paper and Card fragment - small	169
Soft plastic fragment - small	136

Top 3 Items by Volume (l) – November 23

Construction materials	10.8
Other Food Package	9
Paper/card food packaging	7.5

Common Site Features/Observations

Residential sites accounted for the largest area surveyed, however the total item count did not directly reflect this, with Residential sites showing the fourth highest litter count, behind Main Roads, Industrial and Retail.

A number of instances of construction were noted as impacting Residential transects, resulting in the applicable area being excluded from the survey. There were also a number of instances of verges being used to store bulky items/hard rubbish.

As demonstrated in the **Litter Levels** graphs contained at the end of this Section, litter count at the majority of Residential sites was low, and within a fairly tight range, aside from one particular location which accounted for between 25% and 43% of the sites total litter each period.

Top 3 Items by Count (#) – May 24

Cigarette butts and filters	162
Hard plastic fragment - small	89
Food/confect. Wrappers	63

Top 3 Items by Volume (l) – May 24

Construction materials	13.68
Newspaper/Magazine	11
Fruit/vegetable/food	10

3.0 Litter Data by Site Type

Site Type Summary – Industrial

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	3,083	3,329
Total Volume of Items- (l)	310.28	247.47
Items /1000m2	142.47	153.98
Volume (l)/1000m2	14.34	11.45
Highest Site Litter Count - Number (#)	1,025	1023
Highest Site Litter Count - Volume (l)	68.82	90.01
Lowest Site Litter Count - Number (#)	96	135
Lowest Site Litter Count - Volume (l)	4.34	7.38

	Raw	Normalised
Site type count as a % of total items	29.96%	24.56%
Site type volume as a % of total volume	37.64%	32.60%

Top 3 Items by Count (#) – November 23

Other metal item	446
Cigarette butts and filters	296
Paper and Card fragment - small	196

Top 3 Items by Volume (l) – November 23

Other metal item	44.6
Other polystyrene item	33.5
Tyres	20

Common Site Features/Observations

On an annual (raw) basis, Industrial sites came in with the highest litter by both count and volume.

Litter bins were observed at three of ten Industrial sites. There were multiple instances of construction activities impacting Industrial transects, resulting in the applicable area being excluded from the survey. There were also multiple instances of Industrial verges being used to store bulky items/hard rubbish.

Frequent use of Industrial verge areas for parking vehicles was another trend noted, which could be a contributing factor to the litter observed at these sites.

Top 3 Items by Count (#) – May 24

Cigarette butts and filters	651
Hard plastic fragment - small	307
Food/confect. Wrappers	173

Top 3 Items by Volume (l) – May 24

Construction materials	46.44
Tyres	40
Clothing	12

3.0 Litter Data by Site Type

Site Type Summary – Park

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	454	549
Total Volume of Items- (l)	23.24	30.49
Items /1000m2	40.02	47.40
Volume (l)/1000m2	2.05	2.63
Highest Site Litter Count - Number (#)	104	144
Highest Site Litter Count - Volume (l)	4.60	6.63
Lowest Site Litter Count - Number (#)	17	10
Lowest Site Litter Count - Volume (l)	0.47	0.46

	Raw	Normalised
Site type count as a % of total items	4.69%	7.25%
Site type volume as a % of total volume	3.63%	5.93%

Top 3 Items by Count (#) – November 23

Paper and Card fragment - small	63
Cigarette butts and filters	41
Soft plastic fragment - small	39

Top 3 Items by Volume (l) – November 23

Bag - Heavy Boutique	2
Food/confect. Wrappers	1.85
Cup – Single use	1.6

Common Site Features/Observations

Overall, Parks contained the second lowest litter levels in both survey periods. This has been a consistent position, since these AusLM surveys commenced in May 2022.

Litter bins were observed at nine of the ten park sites surveyed; three were also noted to have comingled recycling bins and one location was recorded as containing cigarette butt bins.

Paper and Card fragment – small was the highest item by count in both survey periods, likely a product of frequent mowing/landscaping that occurs in these site types.

Top 3 Items by Count (#) – May 24

Paper and Card fragment - small	71
Cigarette butts and filters	50
Food/confect. Wrappers	47

Top 3 Items by Volume (l) – May 24

Other Food Package	4.00
Clothing	3
Food/confect. Wrappers	2.35

3.0 Litter Data by Site Type

Site Type Summary – Main Road

SITE SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	3,261	2,566
Total Volume of Items- (l)	218.82	134.78
Items /1000m2	192.84	140.10
Volume (l)/1000m2	12.94	7.36
Highest Site Litter Count - Number (#)	1467	482
Highest Site Litter Count - Volume (l)	95.76	29.19
Lowest Site Litter Count - Number (#)	43	100
Lowest Site Litter Count - Volume (l)	3.89	5.83

	Raw	Normalised
Site type count as a % of total items	27.23%	27.42%
Site type volume as a % of total volume	23.86%	25.38%

Top 3 Items by Count (#) – November 23

Paper and Card fragment - small	420
Hard plastic fragment - small	293
Cigarette butts and filters	259

Top 3 Items by Volume (l) – November 23

Paper/card food packaging	25
Construction materials	20.16
Clothing	13

Common Site Features/Observations

As was the case in 2022/23, across all measures (count, count/1000m2, volume, and volume/1000m2) Main Roads contained the highest litter levels in the November survey, and the second highest in May. On an annual basis in 2023/24 Main Roads came in second place, by count and volume.

As demonstrated in the **Litter Levels** graphs at the end of this Section, the count at individual sites varies widely in both periods, suggesting that the high litter load is not a consistent issue across all local government areas.

There was a high level of **Hard Plastic fragments** noted at this site type, with surveyors identifying at one site in particular the source of these was likely linked to motor vehicle accidents.

Top 3 Items by Count (#) – May 24

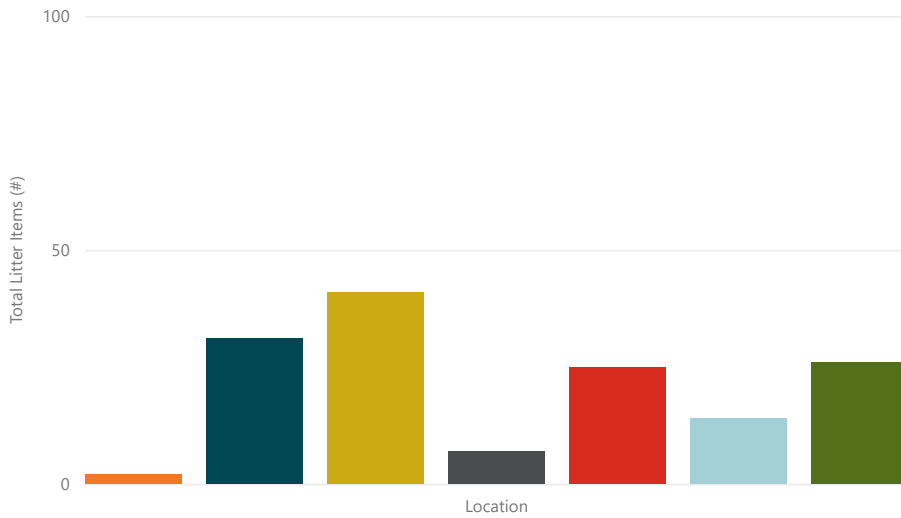
Cigarette butts and filters	488
Hard plastic fragment - small	337
Hard plastic fragment - medium	171

Top 3 Items by Volume (l) – May 24

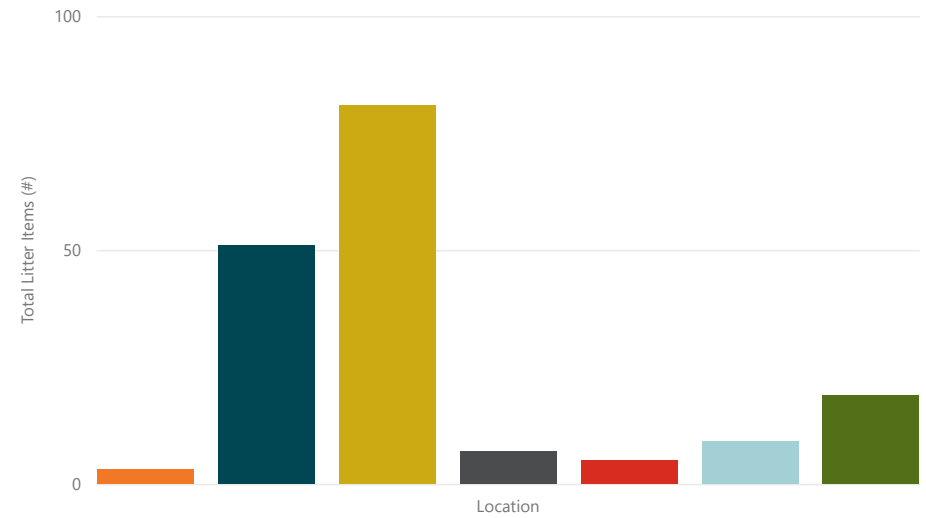
Paper/card food packaging	13.5
Non-Food package	9
Clothing	8

3.0 Litter Data by Site Type

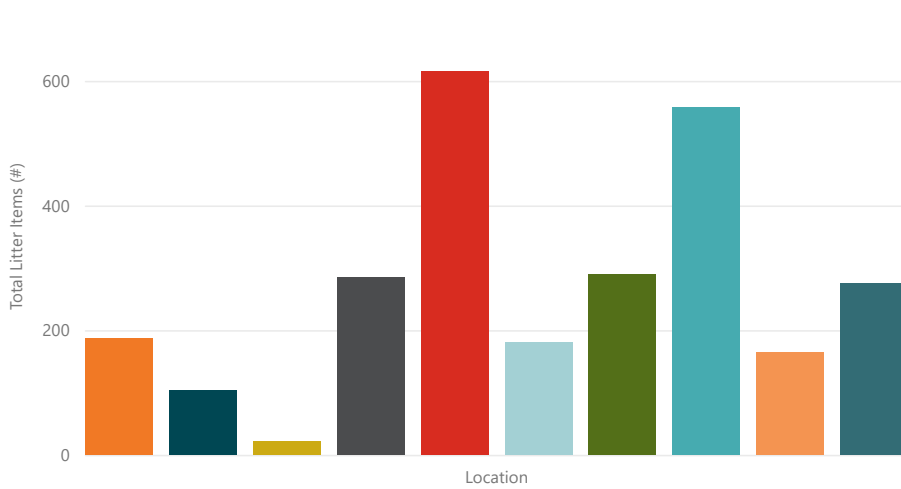
Litter Levels at Beach Sites - November 23



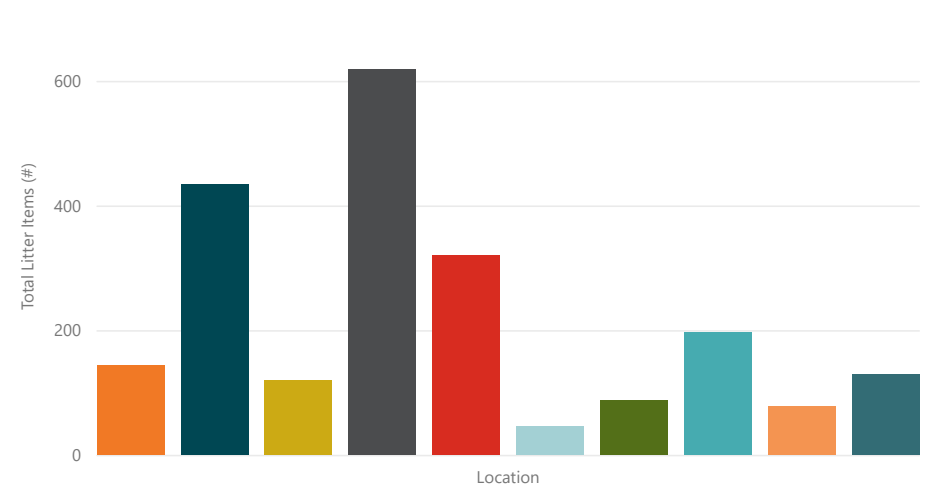
Litter Levels at Beach Sites - May 24



Litter Levels at Retail Sites - November 23

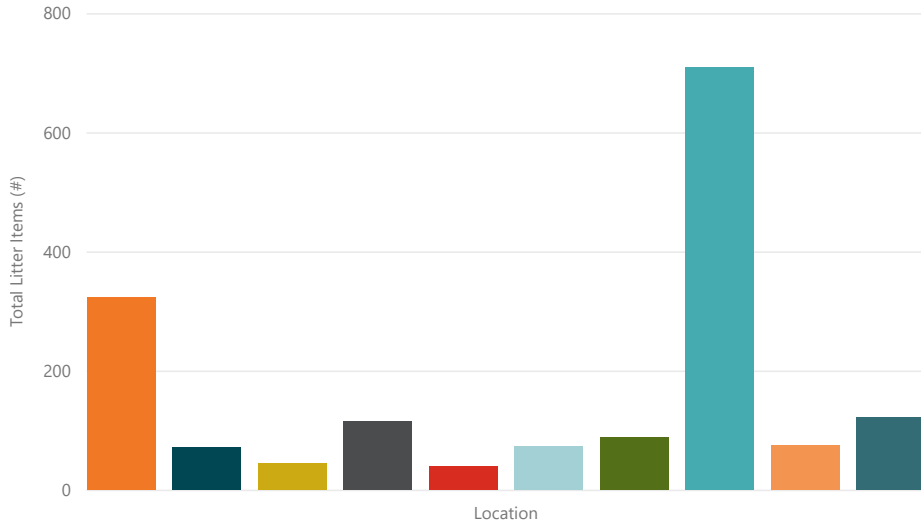


Litter Levels at Retail Sites - May 24

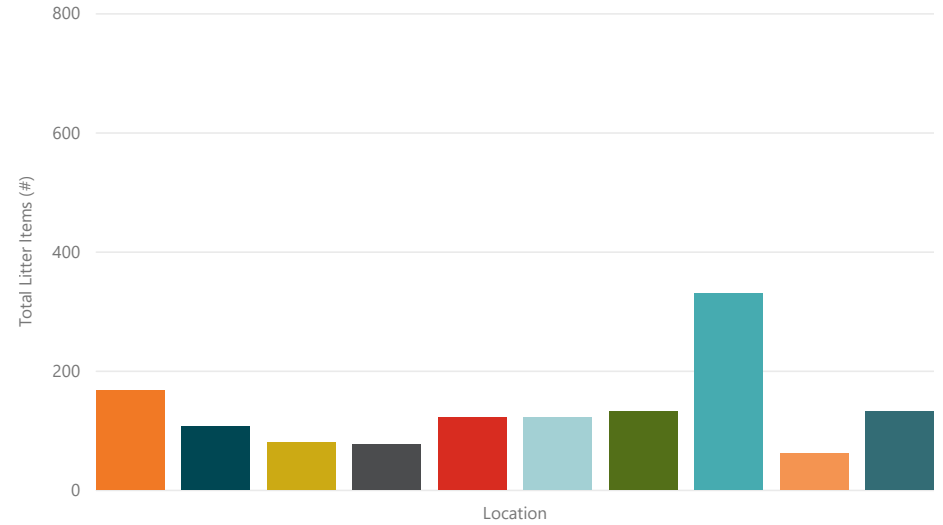


3.0 Litter Data by Site Type

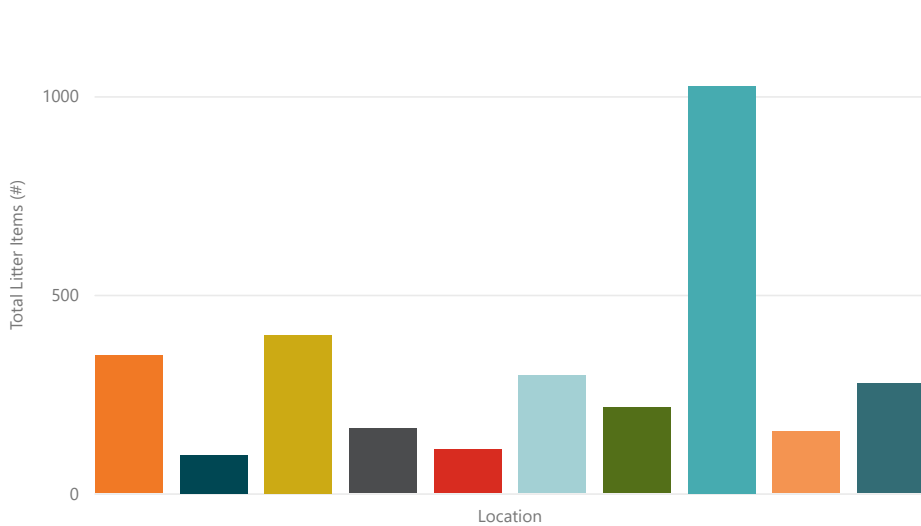
Litter Levels at Residential Sites - November 23



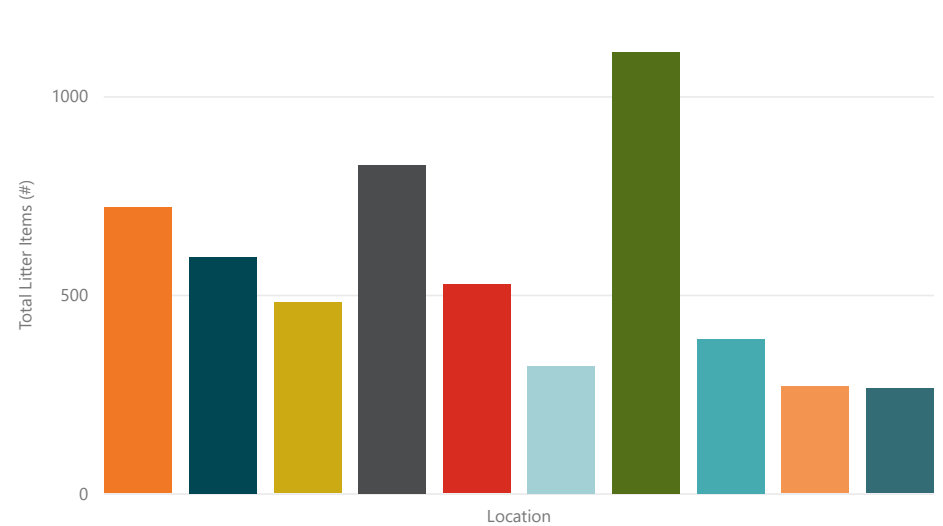
Litter Levels at Residential Sites - May 24



Litter Levels at Industrial Sites - November 23

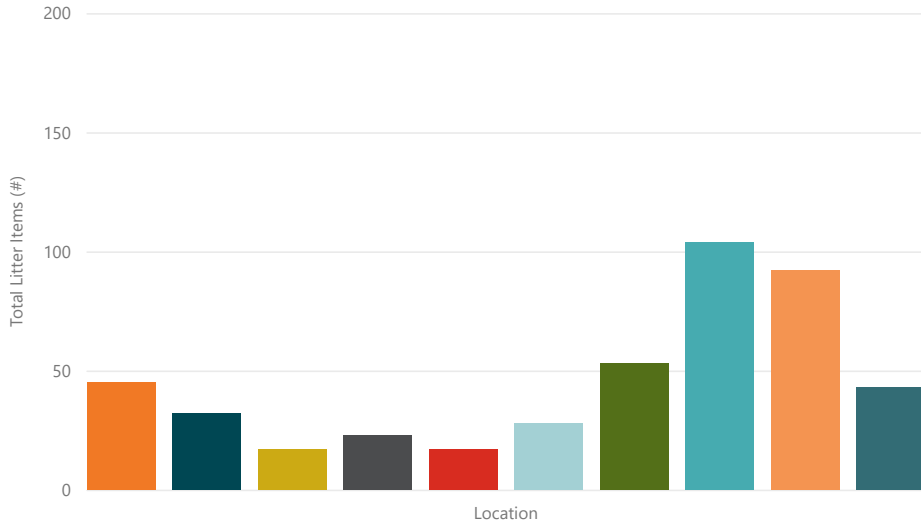


Litter Levels at Industrial Sites - May 24

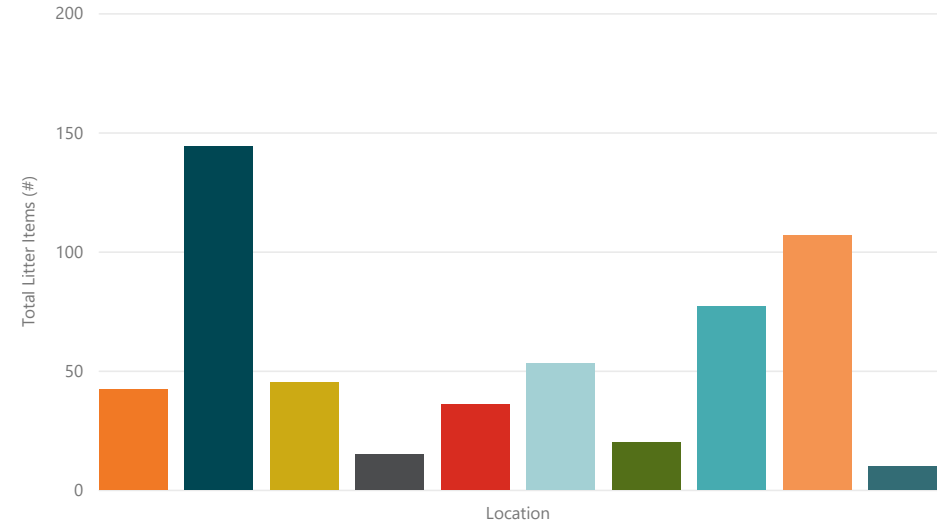


3.0 Litter Data by Site Type

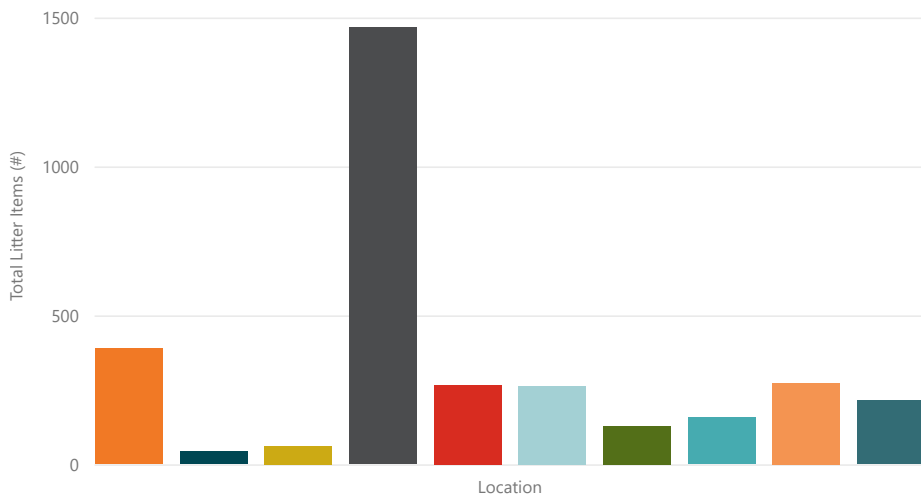
Litter Levels at Park Sites - November 23



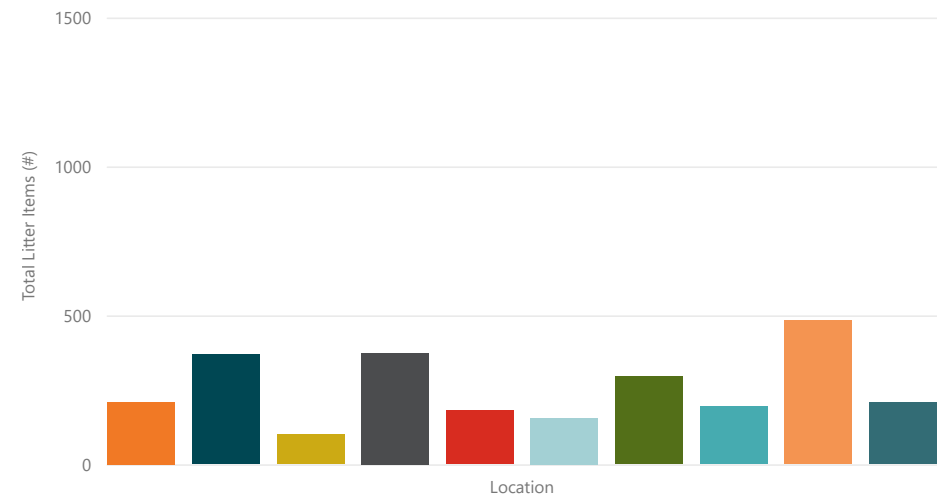
Litter Levels at Park Sites - May 24



Litter Levels at Main Road- November 23



Litter Levels at Main Road Sites - May 24



4.0 Key Categories and Items

Single Use Plastic

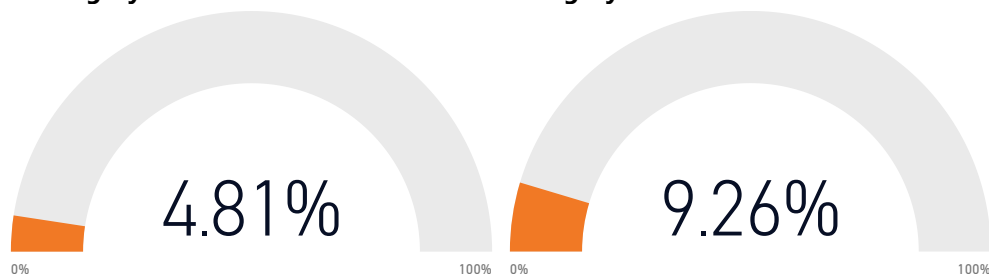
KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	486	544
Total Volume of Items- (l)	72.75	64.54
Highest Site Litter Count - Number (#)	50	37
Highest Site Litter Count - Volume (l)	7.34	4.94
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0
Lowest Site Litter Count - Number (#)	43	100
Lowest Site Litter Count - Volume (l)	3.89	5.83

On the 1st of January 2022, the phased Single Used Plastic “SUP”) ban by the WA Government came into effect. This ‘Plan for Plastic’ includes a ban on items such as single use plastic cutlery, straws, plastic shopping bags, plastic cups and lids and polystyrene food containers. The items captured in this category have been expanded in this year’s report, with likely replacements for the banned items now included and identified as such (SUP – R). Appendix 4 is a count sheet that outlines all items captured in this category.

Out of 57 sites surveyed each period, there were just nine in November 23 and five in May 24 where no Single use plastic items were observed, indicating items in this category are a consistent issue across the majority of site types and locations.

Category Count as a % of Total Items

Category Volume as a % of Total Volume



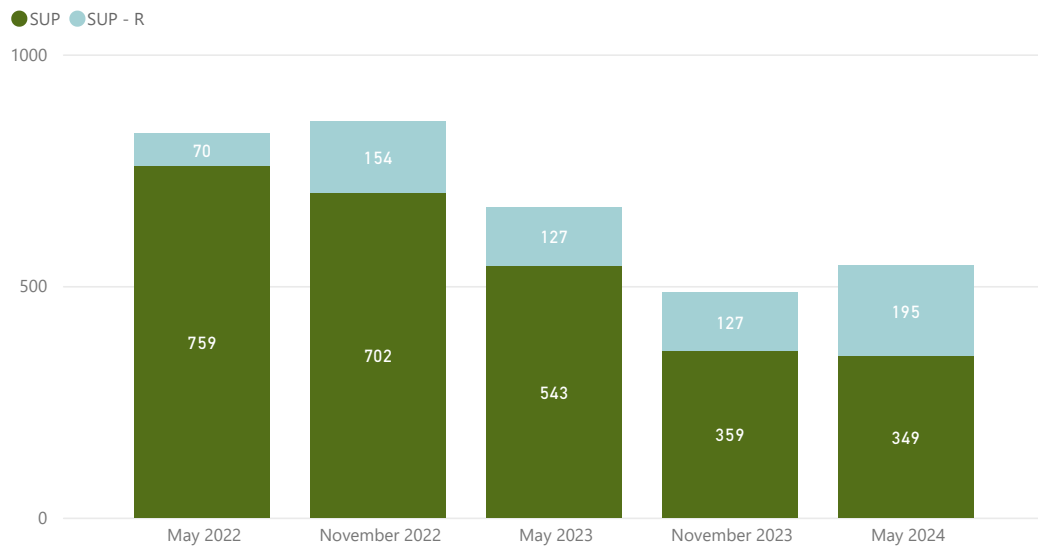
Broken down as

Sub-category count (SUP - Plastic) as a % of total items	3.31%
Sub-category volume (SUP Plastic) as a % of total volume	9.06%
Sub-category count (SUP-R) as a % of total items	1.50%
Category volume (SUP-R) as a % of total volume	0.20%

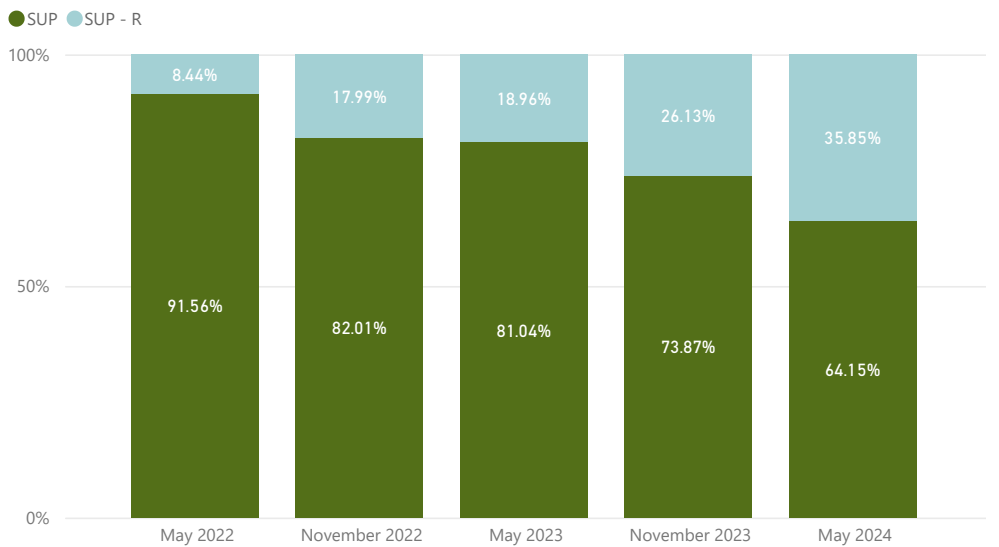


4.0 Key Categories and Items

Single Use Plastic and Single Use Plastic Replacements - by Period and Count



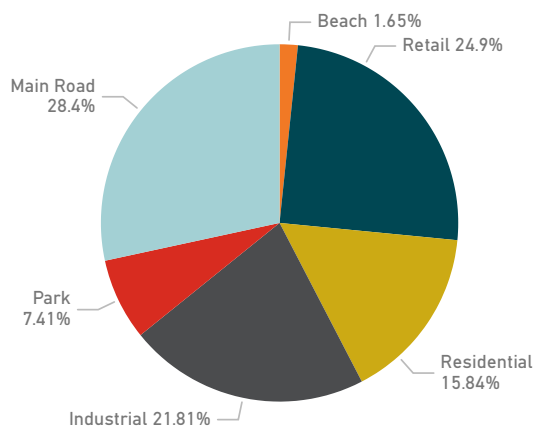
Single Use Plastic and Single Use Plastic Replacements - by Period and %



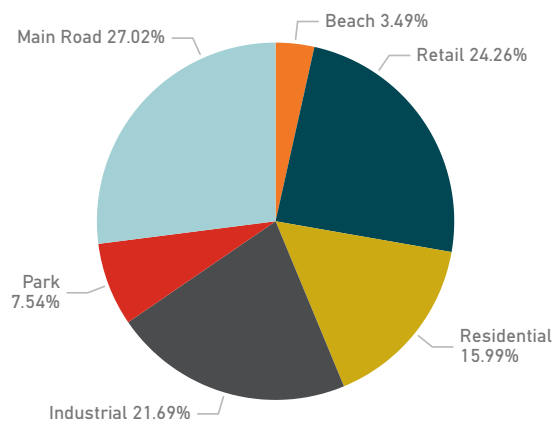
As demonstrated in the above graphs, SUP-R has been steadily increasing as a % of total category, since May 22. In May 22, SUP-R totalled 70 items, and accounted for 8.44% of the total SUP category, increasing to 195 or 35.85% by May 24. This trend is as expected, as the SUP ban takes full effect, but does highlight that the ban on SUP items in some cases may lead to a substitution rather than completely ceasing certain littering behaviour.

4.0 Key Categories and Items

Concentration of SUP + SUP-R - November 23



Concentration of SUP + SUP-R - May 24



Single Use Plastic - November 23

Item	Sum of Count	Sum of Total Volume (l)
Other Food Package	49	24.50
Lids - Other	40	0.80
Lollipop Sticks	39	0.04
Cup - Coffee cup	30	6.00
Takeaway food container	30	15.00
Bag - Other	25	5.00
Lids -Coffee cup lid	25	0.50
Cup - Single use	24	4.80
Straws	23	0.12
Lids - Plastic cup lid	20	0.40
Bag -Lightweight shop	15	3.00
Cotton buds/tips	13	0.01
Bag - Heavy Boutique	8	8.00
Bag - Mesh Bags	7	0.70
Cutlery/chopsticks	5	0.05
Bag - Heavy Supermrkt	2	2.00
Plate/bowl - single use	2	0.40
Stirrers	2	0.00
Food pack/clam shells	0	0.00
Total	359	71.32

Single Use Plastic Replacements (SUP R) - November 23

Item	Sum of Count	Sum of Total Volume (l)
Straw (non-plastic)	87	0.44
Cutlery (non-plastic)	17	0.17
Cotton buds/tips (non- plastic)	11	0.01
Stirrers (non-plastic)	8	0.02
Plate/bowl (non-plastic)	4	0.80
Total	127	1.43

Single Use Plastic - May 24

Item	Sum of Count	Sum of Total Volume (l)
Other Food Package	58	29.00
Lids -Coffee cup lid	49	0.98
Lids - Other	48	0.96
Cup - Coffee cup	44	8.80
Lollipop Sticks	39	0.04
Straws	31	0.16
Lids - Plastic cup lid	17	0.34
Takeaway food container	16	8.00
Cotton buds/tips	11	0.01
Bag - Heavy Supermrkt	9	9.00
Cup - Single use	7	1.40
Bag - Other	6	1.20
Plate/bowl - single use	6	1.20
Bag -Lightweight shop	4	0.80
Cutlery/chopsticks	2	0.02
Bag - Heavy Boutique	1	1.00
Stirrers	1	0.00
Total	349	62.91

Single Use Plastic Replacements (SUP-R) - May 24

Item	Sum of Count	Sum of Total Volume (l)
Straw (non-plastic)	132	0.66
Cutlery (non-plastic)	33	0.33
Stirrers (non-plastic)	14	0.03
Cotton buds/tips (non- plastic)	13	0.01
Plate/bowl (non-plastic)	3	0.60
Total	195	1.63

4.0 Key Categories and Items

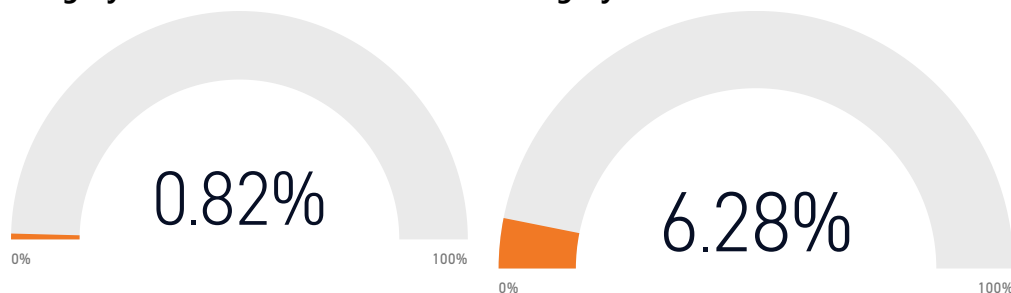
CDS Beverage Containers

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	105	70
Total Volume of Items- (l)	47.03	46.05
Highest Site Litter Count - Number (#)	17	14
Highest Site Litter Count - Volume (l)	9.30	7.50
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0

The Containers for Change program is a container deposit scheme (“CDS”) that commenced in Western Australia in October 2020. It allows consumers to take eligible beverage containers to a collection point and get a refund of 10 cents per item. Eligible containers are labelled with a “10 cent refundable” sign.

Data presented in the first part of this section refers to CDS eligible containers only. Detail on all beverage containers (including CDS eligible and Non-CDS) is presented at the end of this section.

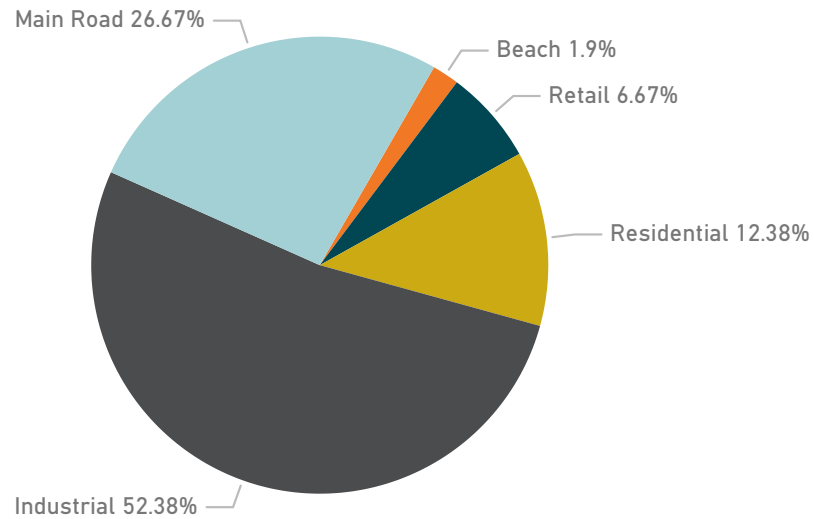
Category Count as a % of Total Items Category Volume as a % of Total Volume



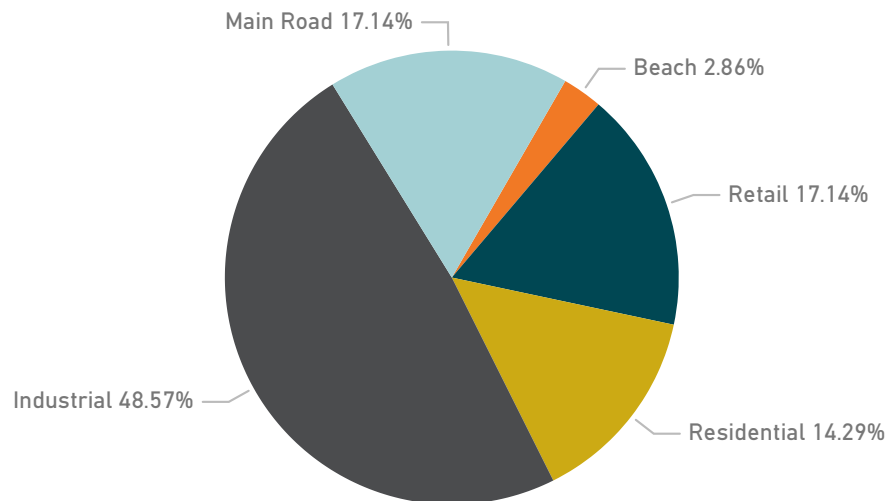
Despite a drop in **CDS Beverage Containers** counted between November 23 and May 24, volume between the periods is quite comparable, with a noticeable increase in larger capacity (>500ml) containers observed in May. Referring to the **Category Count as a % of Total Items** in 2023/24, **CDS Beverage Containers** accounted for 0.82% by count, or 6.28% by volume. As the 2023/24 survey period has shown an overall reduction in litter levels observed, it is interesting to compare these proportionate figures to 2022/23, where **CDS Beverage Containers** accounted for 0.83% of total items by count, or 5.65% by volume- indicating on a proportionate basis a stable trend in this litter item.

4.0 Key Categories and Items

Concentration of CDS Beverage Containers - November 23

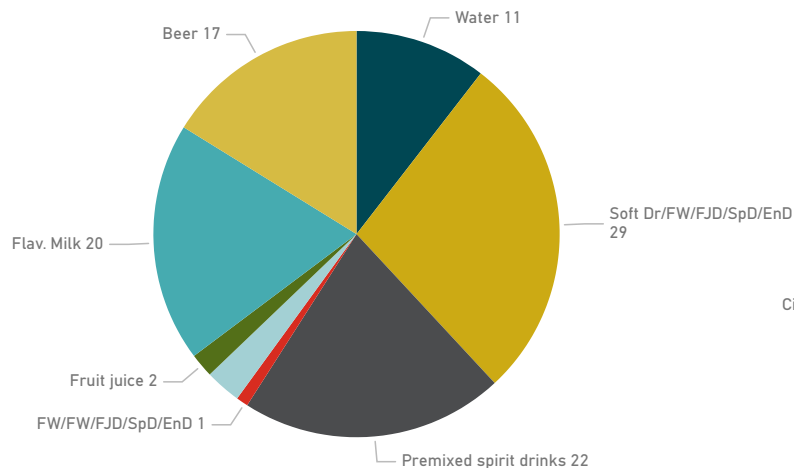


Concentration of CDS Beverage Containers - May 24

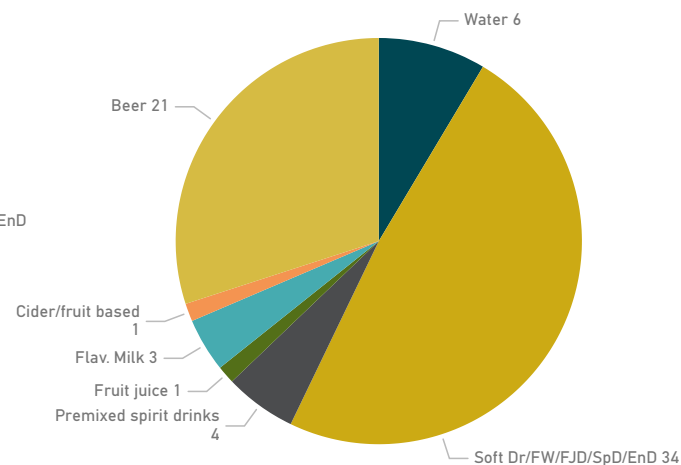


4.0 Key Categories and Items

CDS Beverage Containers by Beverage Type - November 23



CDS Beverage Containers by Beverage Type - May 24



Note: FW/FJD/SpD/EnD refers to Flavoured water, Fruit juice drink, Sports drink and Energy drink.

Category Detail - CDS Beverage Containers November 23

Classification	Item	Sum of Count	Sum of Total Volume (l)
Metal	Premixed spirit drinks 150-499mL	20	7.50
Metal	Soft Dr/FW/FJD/SpD/EnD 150-499mL	16	6.00
Paper And Card	Flav. milk (Cartons) 500-999mL	15	9.00
Glass	Beer 150-499mL	10	3.75
Plastic	Water 150-499mL	8	3.00
Metal	Beer 150-499mL	7	2.63
Plastic	Soft Dr/FW/FJD/SpD/EnD 500-999mL	7	4.20
Plastic	Fruit/vegetable juice 150-499mL	3	1.13
Plastic	Soft Dr/FW/FJD/SpD/EnD 150-499mL	3	1.13
Plastic	Water 500-999mL	3	1.80
Plastic	Flav. Milk 150-499mL	2	0.75
Plastic	Flav. Milk 500-999mL	2	1.20
Glass	Premixed spirit drinks 150-499mL	2	0.75
Paper And Card	Flav. milk (Cartons) 150-499mL	1	0.38
Paper And Card	Fruit Juice 150-499mL	1	0.38
Glass	Fruit juice 150-499mL	1	0.38
Paper And Card	FW/FW/FJD/SpD/EnD 500-999mL	1	0.60
Glass	Soft Dr/FW/FJD/SpD/EnD 150-499mL	1	0.38
Plastic	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1	1.50
Metal	Soft Dr/FW/FJD/SpD/EnD 500-999mL	1	0.60
Total		105	47.03

Category Detail - CDS Beverage Containers May 24

Classification	Item	Sum of Count	Sum of Total Volume (l)
Metal	Beer 500-999mL	14	8.40
Plastic	Soft Dr/FW/FJD/SpD/EnD 500-999mL	9	5.40
Metal	Soft Dr/FW/FJD/SpD/EnD 150-499mL	8	3.00
Plastic	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	6	9.00
Metal	Soft Dr/FW/FJD/SpD/EnD 500-999mL	6	3.60
Plastic	Water 1000mL-3000mL	4	6.00
Glass	Beer 150-499mL	3	1.13
Glass	Beer 500-999mL	3	1.80
Metal	Premixed spirit drinks 150-499mL	3	1.13
Glass	Soft Dr/FW/FJD/SpD/EnD 500-999mL	3	1.80
Paper And Card	Flav. milk (Cartons) 150-499mL	2	0.75
Plastic	Soft Dr/FW/FJD/SpD/EnD 150-499mL	2	0.75
Plastic	Water 500-999mL	2	1.20
Metal	Beer 150-499mL	1	0.38
Metal	Cider/fruit based 150-499mL	1	0.38
Plastic	Flav. Milk 500-999mL	1	0.60
Paper And Card	Fruit Juice 150-499mL	1	0.38
Glass	Premixed spirit drinks 150-499mL	1	0.38
Total		70	46.05

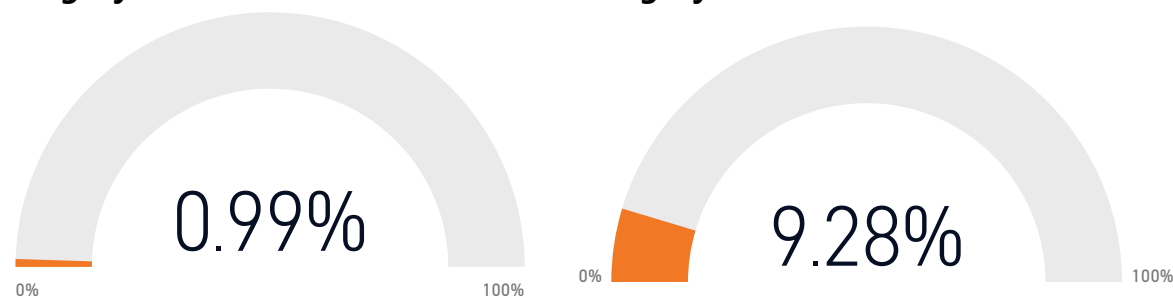
4.0 Key Categories and Items

Non CDS Beverage Containers

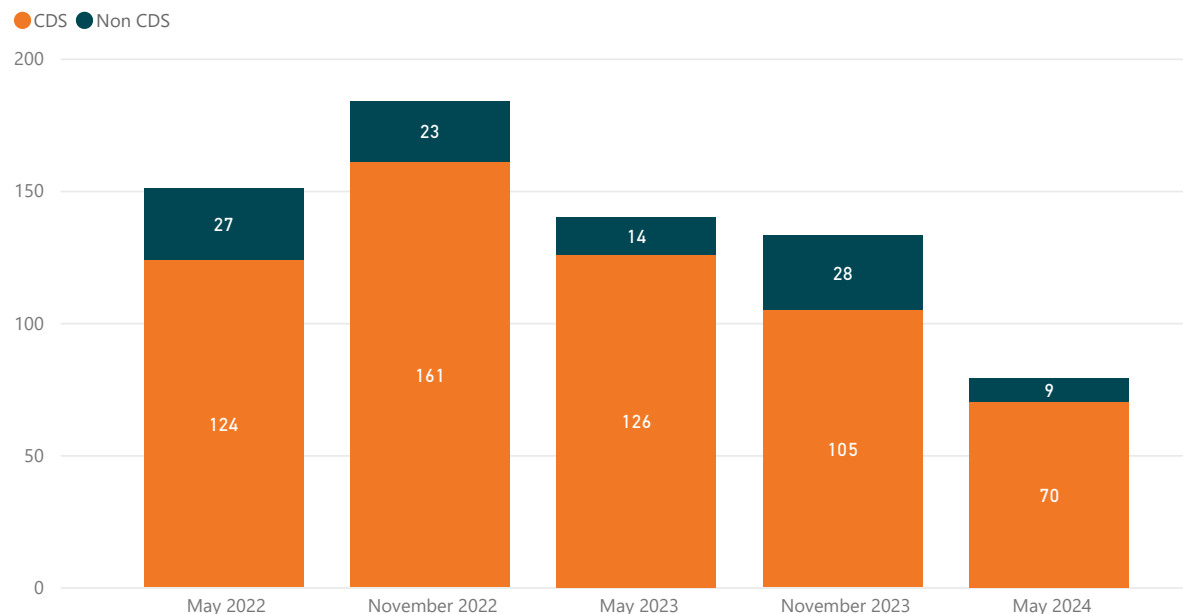
Across both survey periods, in addition to the above-reported CDS eligible containers there were a further 37 containers found that were classified as not eligible for the CDS scheme (28 in November 23 and 9 in May 24). This included 21 white milk containers, four ineligible glass containers (wine and non premix spirits), four plastic containers of ineligible size (<150ml or > 1L) and two plastic drink pouches.

As highlighted in the **CDS and Non CDS Beverage Containers by Period** graph, total beverage containers have been steadily reducing since November 22. This reduction is matched by a similar decreasing trend across all litter items, and hence the **Category Counts as a % of Total Items** (including CDS and non-CDS eligible) remain at a similar level to 2022/23 (0.94% and 6.90%). The increased proportionate volume in 2023/24 is attributed to the high level of **Milk, plain (white) 1000mL-3000mL** counted in the 2023/24 survey period.

Category Count as a % of Total Items Category Volume as a % of Total Volume



CDS and Non CDS Beverage Containers by Period



4.0 Key Categories and Items

Cigarette Butts and Filters

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	2,163	2,225
Total Volume of Items- (l)	4.33	4.45
Highest Site Litter Count - Number (#)	348	391
Highest Site Litter Count - Volume (l)	0.70	0.78
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0



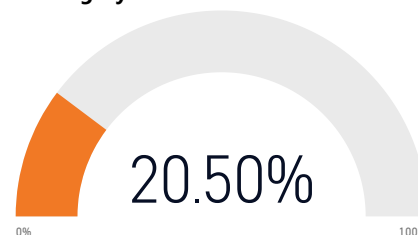
Cigarette Butts and Filters were the highest individual litter item by count in both survey periods. In 2023/24, there was 20.38 cigarette butts counted per 1,000 sqm. Consistent with the previous period, **Cigarette Butts and Filters** in the 2023/24 survey account for 20.50% of all litter items counted (20.10% in 2022/23).

Retail sites represented the largest contribution, accounting for 67% and 38% of the total **Cigarette Butts and Filters** counted in November 23 and May 24 respectively.

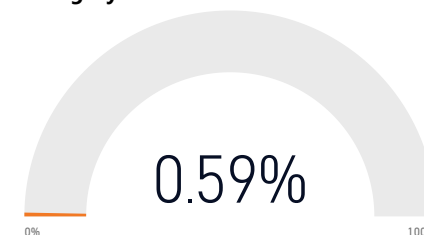
The highest individual site count for **Cigarette Butts and Filters** was at a **Retail** site in both survey periods.

Out of 57 sites surveyed in November 23 and May 24, there were just six in each period where no **Cigarette Butts and Filters** were observed. Cigarette butt bins were only observed at one site during each survey period.

Category Count as a % of Total Items

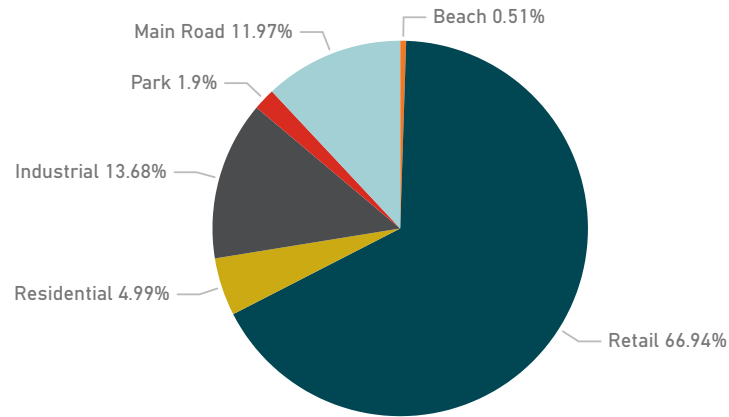


Category Volume as a % of Total Volume

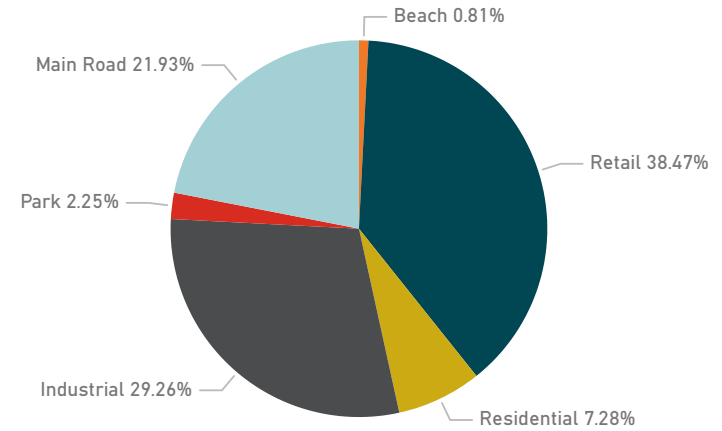


4.0 Key Categories and Items

Concentration of Cigarette Butts & Filters - November 23

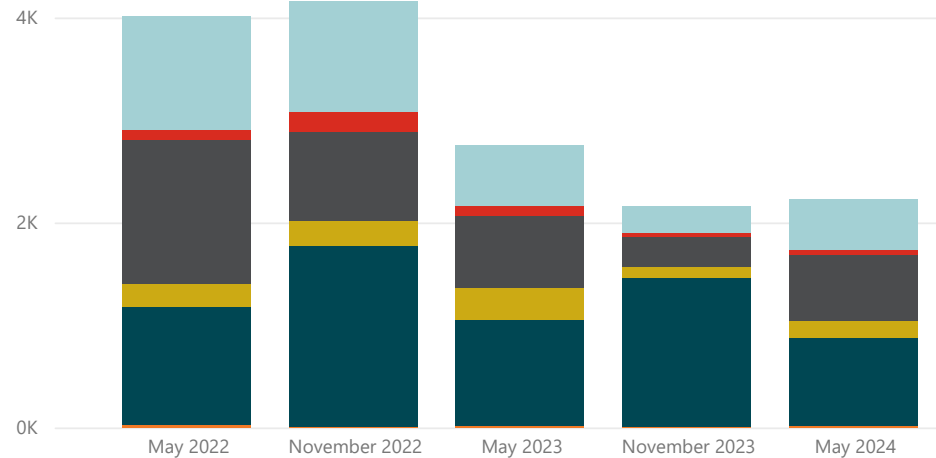


Concentration of Cigarette Butts & Filters - May 24



Cigarette Butts and Filters by Site and Period

Site Type: Beach (orange), Retail (dark teal), Residential (yellow), Industrial (grey), Park (red), Main Road (light blue)



4.0 Key Categories and Items

Takeaway Food Packaging

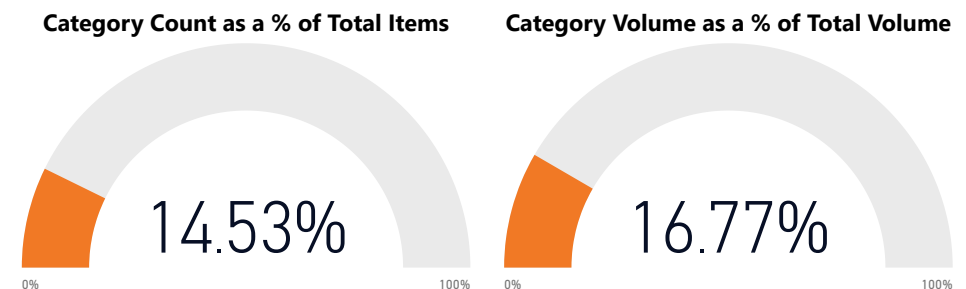
KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	1,519	1,591
Total Volume of Items- (l)	149.02	99.47
Highest Site Litter Count - Number (#)	235	173
Highest Site Litter Count - Volume (l)	27.44	12.59
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0



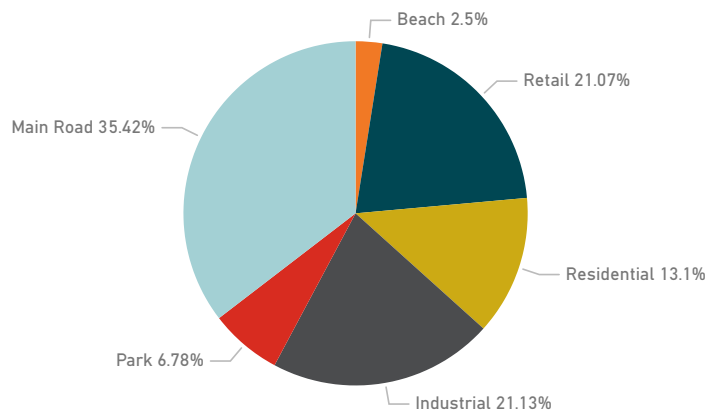
Items in this section include a variety of materials that are used to package, wrap and transport takeaway and convenience food and beverages. Some additional items have been included in this category in this periods report, to ensure non-plastic alternatives are being included where appropriate (this included non-plastic straws, plates, stirrers, and cutlery.) The Count Sheet at Appendix 4 details the items captured in this category.

Out of 57 sites surveyed each period, in November 23 there was two sites and May 2024 just one, where no items from the **Takeaway food packaging** category observed. This highlights that this category of items is a persistent issue across all site types and locations.

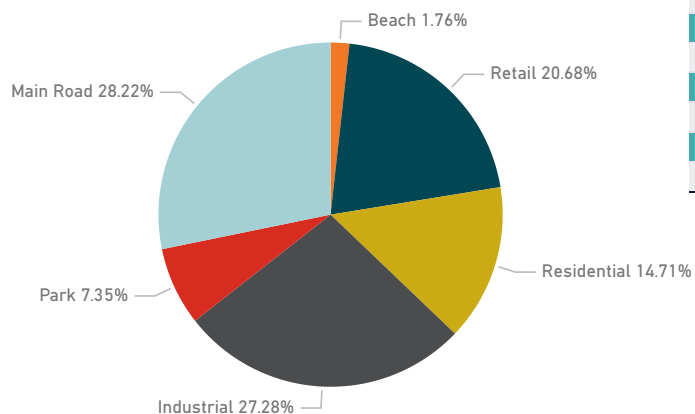
Category totals as a % of total count and volume for 2023/24 is shown below. When taking into account the category adjustments noted above, this compares to 2022/23, where **Takeaway food packaging** accounted for 14.89% of total items, and 21.49% of volume.



Concentration of Takeaway Food Packaging - November 23



Concentration of Takeaway Food Packaging - May 24



Category Detail - Takeaway Food Packaging - November 23

Item	Sum of Count	Sum of Total Volume (l)
Food/confect. Wrappers	505	25.25
Lids - Beverage container lids /caps	235	4.70
Lids, bottle tops, can ring pulls	197	0.39
Paper/card food packaging	152	76.00
Straw (non-plastic)	87	0.44
Cup - Other paper cup	51	10.20
Lids - Other	40	0.80
Lollipop Sticks	39	0.04
Cup - Coffee cup	30	6.00
Takeaway food container	30	15.00
Lids -Coffee cup lid	25	0.50
Cup - Single use	24	4.80
Straws	23	0.12
Lids - Plastic cup lid	20	0.40
Cutlery (non-plastic)	17	0.17
Ice Cream Stick	11	0.01
Stirrers (non-plastic)	8	0.02
Six pack rings	6	1.20
Cutlery/chopsticks	5	0.05
Plate/bowl (non-plastic)	4	0.80
Foil takeaway container	3	1.50
Ice cream wrappers	2	0.04
Plate/bowl - single use	2	0.40
Stirrers	2	0.00
Cups (foam)	1	0.20
Food pack./clam shells	0	0.00
Total	1519	149.02

Category Detail - Takeaway Food Packaging - May 24

Item	Sum of Count	Sum of Total Volume (l)
Paper/card food packaging	77	38.50
Food/confect. Wrappers	503	25.15
Cup - Coffee cup	44	8.80
Takeaway food container	16	8.00
Lids - Beverage container lids /caps	269	5.38
Cup - Other paper cup	25	5.00
Cup - Single use	7	1.40
Plate/bowl - single use	6	1.20
Lids -Coffee cup lid	49	0.98
Lids - Other	48	0.96
Six pack rings	4	0.80
Straw (non-plastic)	132	0.66
Plate/bowl (non-plastic)	3	0.60
Foil takeaway container	1	0.50
Lids, bottle tops, can ring pulls	244	0.49
Lids - Plastic cup lid	17	0.34
Cutlery (non-plastic)	33	0.33
Straws	31	0.16
Ice cream wrappers	6	0.12
Lollipop Sticks	39	0.04
Stirrers (non-plastic)	14	0.03
Cutlery/chopsticks	2	0.02
Ice Cream Stick	20	0.02
Stirrers	1	0.00
Cups (foam)	0	0.00
Food pack./clam shells	0	0.00
Total	1591	99.47

4.0 Key Categories and Items

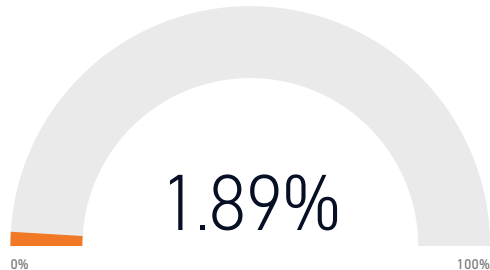
Polystyrene

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	292	113
Total Volume of Items- (l)	52.09	5.48
Highest Site Litter Count - Number (#)	67	43
Highest Site Litter Count - Volume (l)	33.02	1.54
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0

This category captures Polystyrene takeaway food packaging and cups, insulation and packaging, and fragments.

Fragments make up the largest proportion of this category, accounting for 213 or 73% in November 23 and 111 or 98% in May 24.

Category Count as a % of Total Items

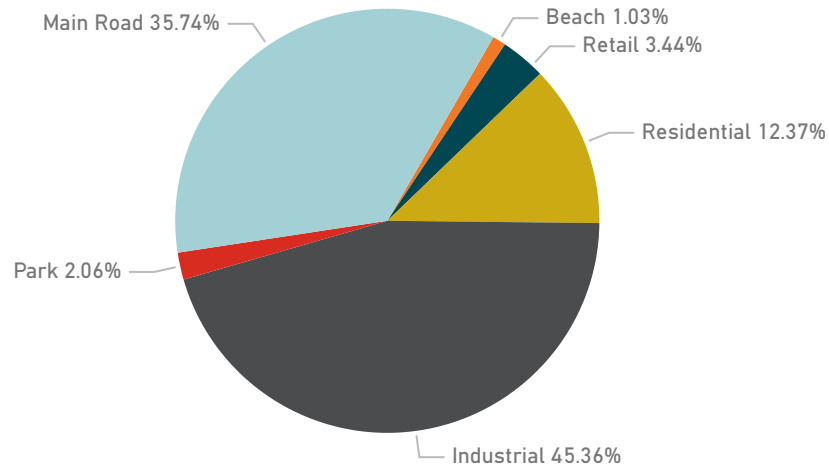


Category Volume as a % of Total Volume

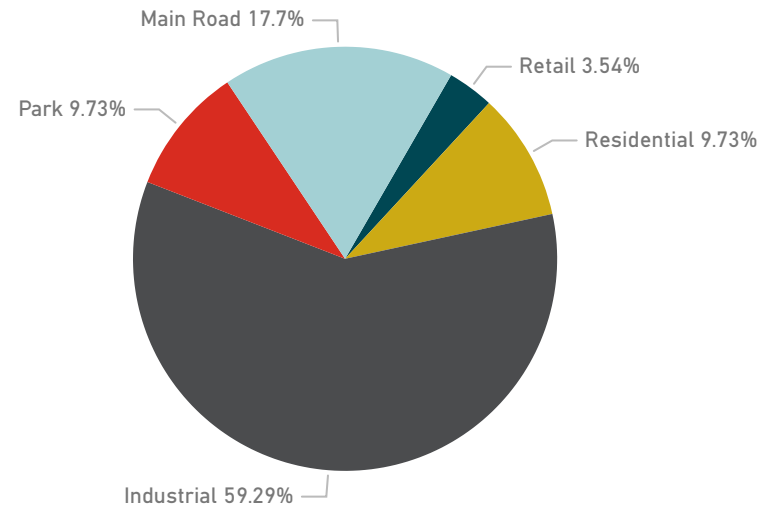


4.0 Key Categories and Items

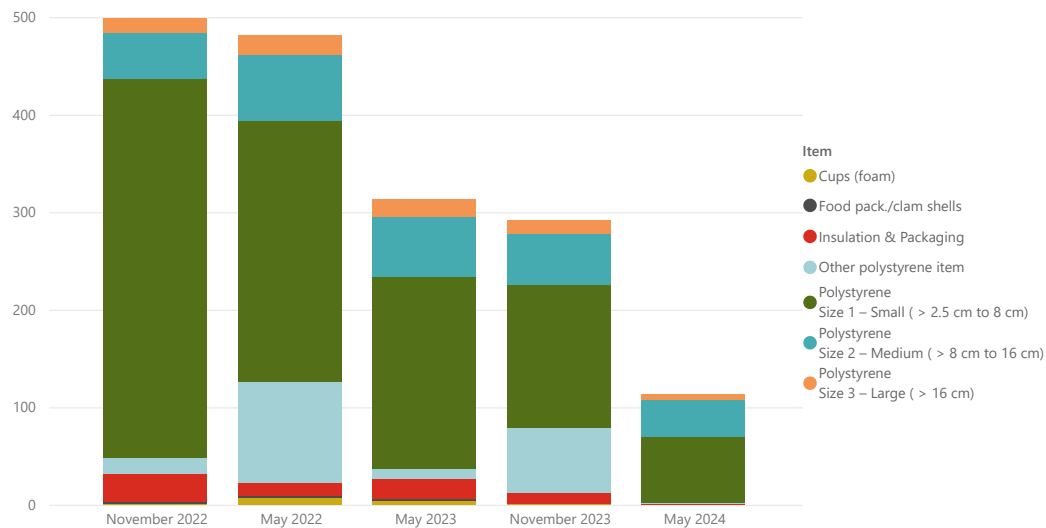
Concentration of Polystyrene - November 23



Concentration of Polystyrene - May 24



Category Detail - Polystyrene by Period



4.0 Key Categories and Items

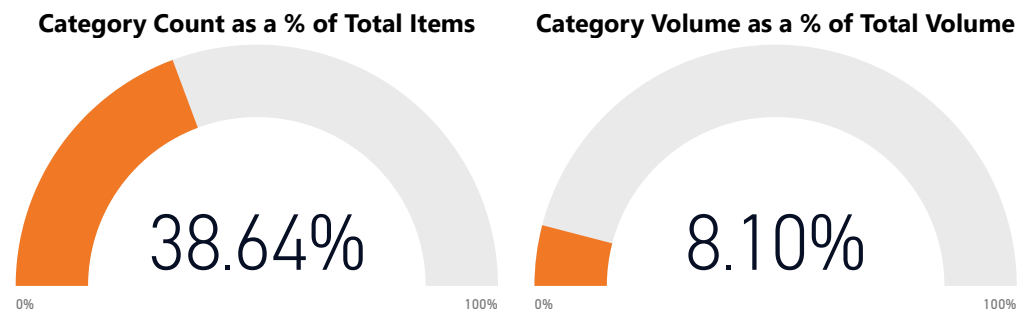
Fragments

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	4,414	3,854
Total Volume of Items- (l)	61.43	58.65
Highest Site Litter Count - Number (#)	859	498
Highest Site Litter Count - Volume (l)	12.68	8.82
Lowest Site Litter Count - Number (#)	0	1
Lowest Site Litter Count - Volume (l)	0	0.01

The AusLM Field Guide defines Fragments as “pieces of litter [that are] either no longer identifiable as a whole item, or there is less than half of the whole item found in one or multiple contributing pieces”

Fragments were classified based on their source material, and size;

- small (2.5 cm to 8 cm)
- medium (8 cm to 16 cm)
- large (larger than 16 cm)



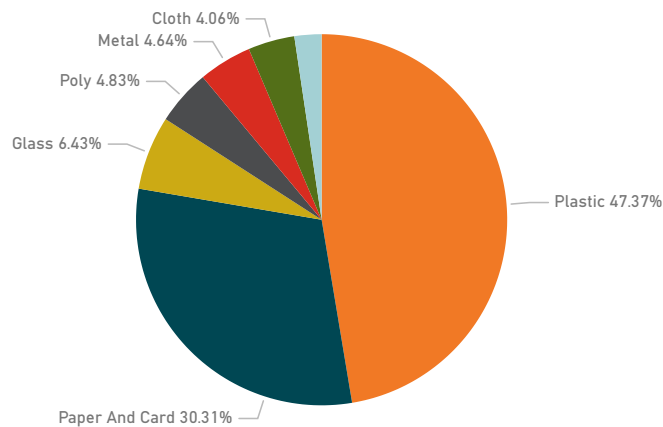
On an annual basis, total fragments in 2023/24 were 4,134 by count, or 60.04 by volume.

As a proportion of total items, fragments account for 38.64% of total items counted, and 8.10% of the total volume. This compares to 2022/23 when this category totalled 41.39% and 7.72% of total volume.

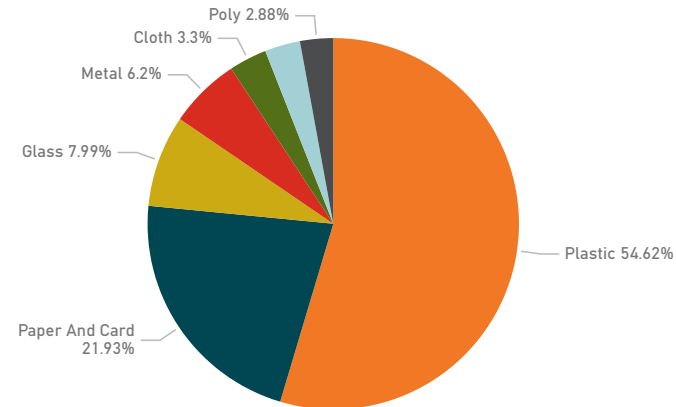
Plastic fragments (including hard and soft plastic) account for the largest proportion of fragments in each period.

4.0 Key Categories and Items

Fragments by Source Material - November 2023

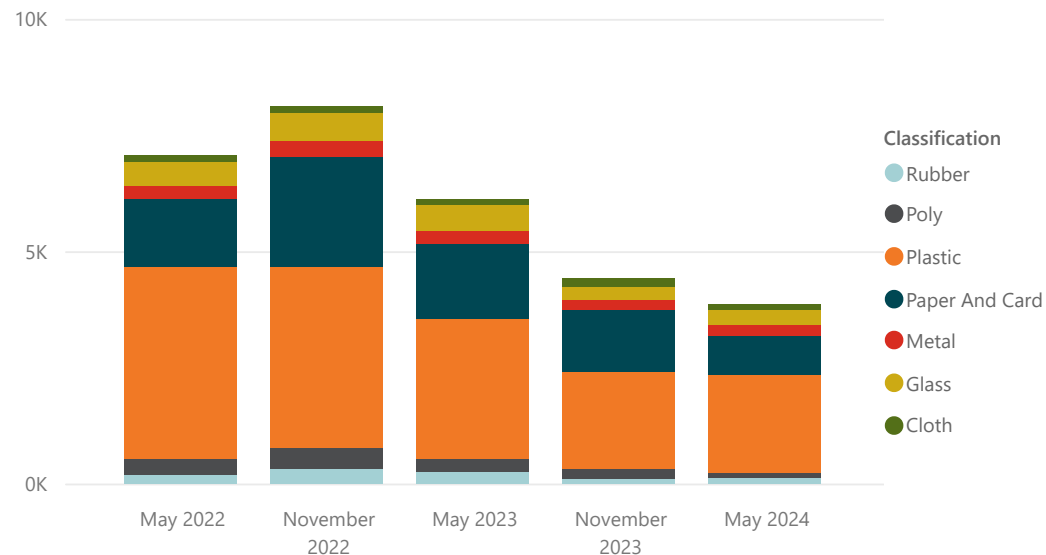


Fragments by Source Material - May 24



As demonstrated in the below **Fragments by Source Material** graph, total fragments counted, across all materials have shown a reducing trend since November 22, with this category being a large contributor to the overall reduction in total litter items counted.

Fragments by Source Materials



5.0 Other Observations

Items of Note – Facemasks

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	13	5
Total Volume of Items- (l)	1.3	0.5
Highest Site Litter Count - Number (#)	5	3
Highest Site Litter Count - Volume (l)	0.5	0.3
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0

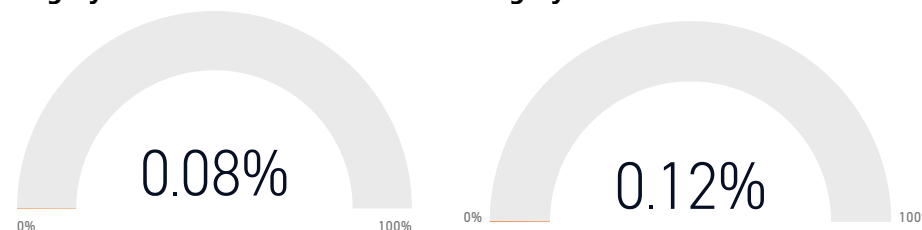


Over the past four and a half years, the Coronavirus Pandemic has resulted in Public Health Orders, including periods of Facemask mandates across the Perth metropolitan area.

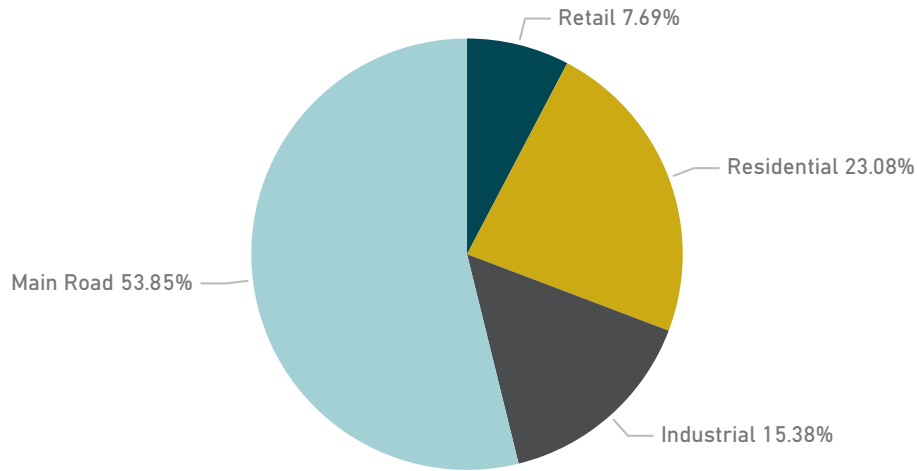
There were no periods of mask mandates during the 12 months to June 2024, and the resulting reduction in Facemasks counted is highlighted in the **Count of Facemasks by Period** graph.

In 2023/24 there were just 13 **Facemasks** recorded in November 23 and five in May 24. Of these, five and three respectively were counted at the same Main Road site.

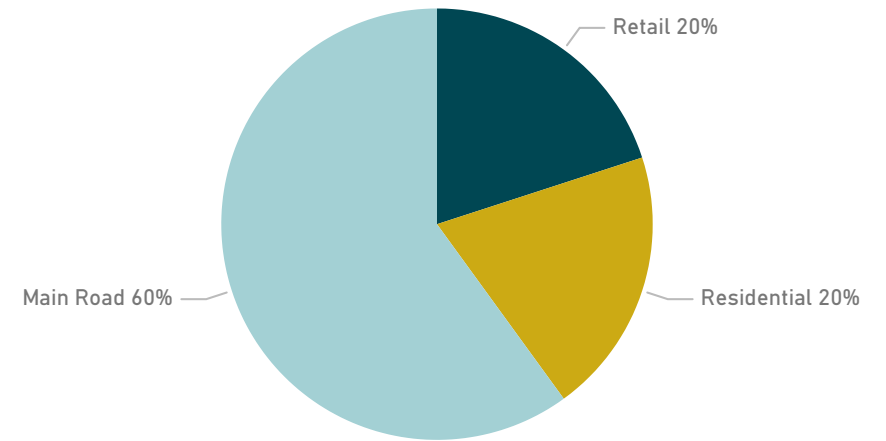
Category Count as a % of Total Items Category Volume as a % of Total Volume



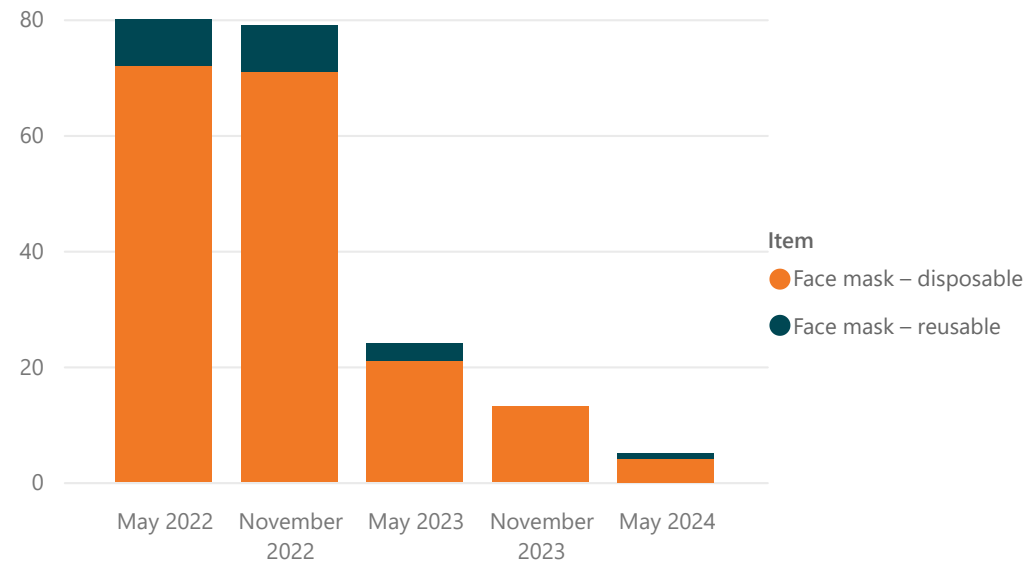
Concentration of Facemasks - November 23



Concentration of Facemasks - May 24



Count of Facemasks by Period

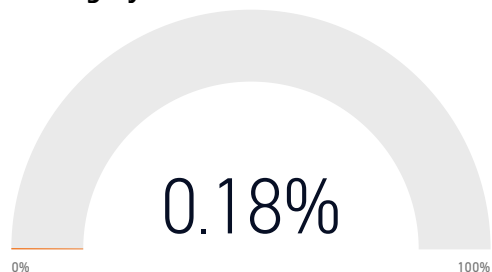


5.0 Other Observations

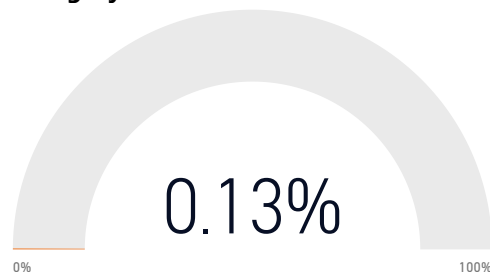
Items of Note – Vape Pens and Vape Packaging

KEY ITEM SNAPSHOT		
	November 23	May 24
Total Number of Items - (#)	28	10
Total Volume of Items- (l)	1.40	0.50
Highest Site Litter Count - Number (#)	7	4
Highest Site Litter Count - Volume (l)	0.35	0.20
Lowest Site Litter Count - Number (#)	0	0
Lowest Site Litter Count - Volume (l)	0	0

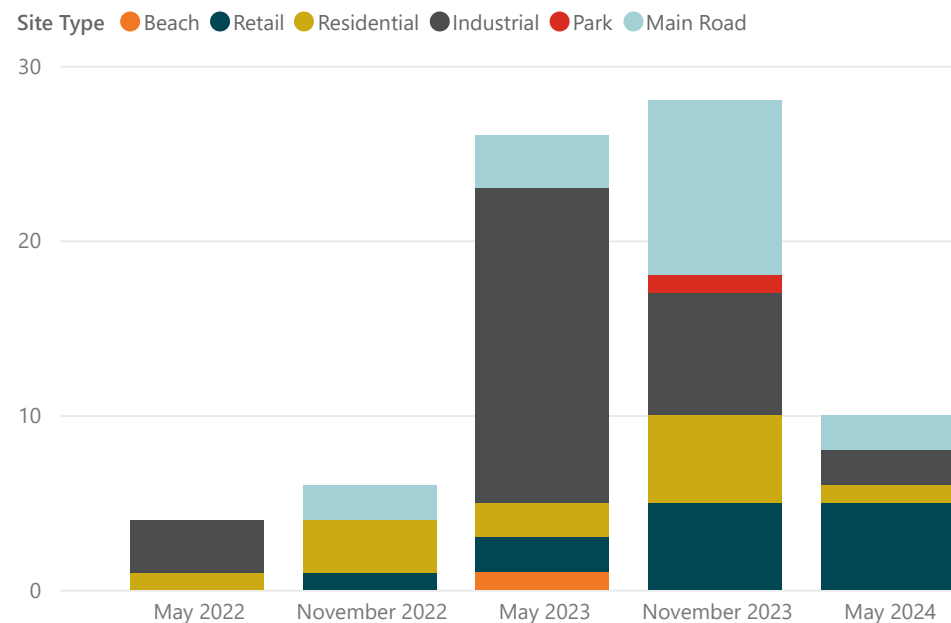
Category Count as a % of Total Items



Category Volume as a % of Total Volume



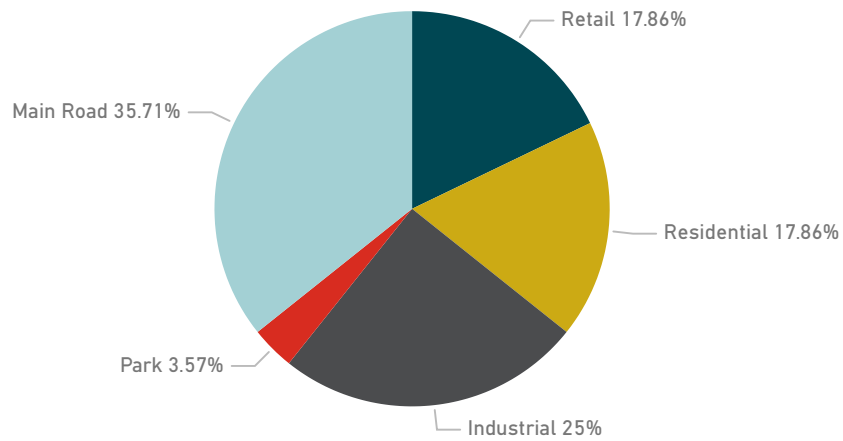
Vape Pens and Packaging by Site Type and Period



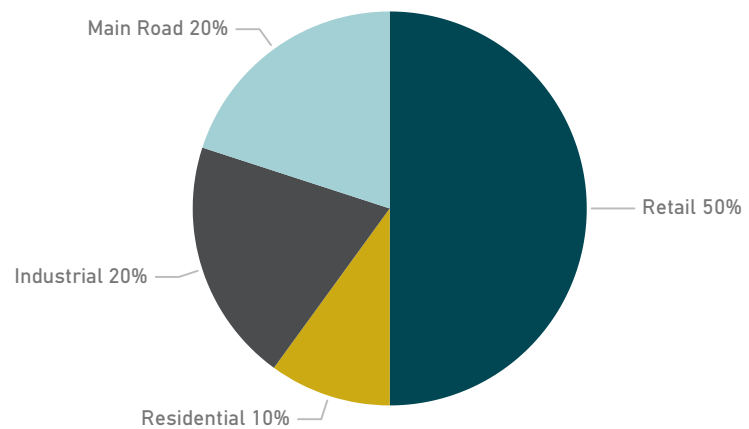
As demonstrated in the above **Vape Pens and Packaging by Site Type and Period** graph, whilst the total count is still relatively low, **Vape Pens** and **Vape Packaging** are showing higher levels than initially observed, in the first survey in 2022.

5.0 Other Observations

Concentration of Vape Pens and Packaging - November 23



Concentration of Vape Pens and Packaging - May 24



5.0 Other Observations

Illegal Dumping

There were a number of occasions where illegal dumping was observed during the litter surveys. Per the AusLM Field Guide the items of illegal dumping were excluded from the count and the area containing the items plus a one metre buffer was excluded from the surveyed area.

In November 23, five instances of illegal dumping were noted within a specific transect. This included one large load at an Industrial site, a medium load at both a Park site and Residential site, and two instances of small loads at Retail sites. Illegally dumped items included tyres and construction rubble/materials.

In May 24, four instances of illegal dumping were recorded, including three small loads in a Residential site, and one small load in an Industrial. Items included construction waste, and junk mail.



6.0 Appendices

<i>Appendix 1 – Site Type Assessment Checklist</i>	51
<i>Appendix 2 – Total Items and Volume in Count Sheet Format</i>	52
<i>Appendix 3 – Total Estimated Volume by Item</i>	57
<i>Appendix 4 – Category Classifications</i>	60

6.0 Appendices

Appendix 1

Site Type Assessment Checklist

RESIDENTIAL AREA	
Summary	A street/collection of streets in a residential area. The street has homes, units, or apartments on both sides of the street.
Inclusion criteria	<input type="checkbox"/> Houses, multi-unit developments, apartments and townhouses on both sides of the street.
Exclusion criteria	<input type="checkbox"/> Streets maximum speed limits greater than 60 km/h. <input type="checkbox"/> Dead end/blind-ended streets (e.g. courts, cul-de-sac) <input type="checkbox"/> Streets with schools or other significant public amenity (though these can be nearby in neighbouring streets).
RETAIL AREA	
Summary	A street/collection of streets within a retail precinct (i.e. shopfronts).
Inclusion criteria	<input type="checkbox"/> Majority of street contains retail shops and food stores. A small fraction of other building types (e.g. a library, a small office frontage) is allowed. The retail strip might be only on one side of the road or both. Buildings that have retail fronts/at ground level and residential above can be included.
Exclusion criteria	<input type="checkbox"/> A strip that is dominated by restaurants/pubs (i.e. more than 80% of the land use areas).
INDUSTRIAL AREA	
Summary	A street/collection of streets in an industrial area.
Inclusion criteria	<input type="checkbox"/> Streets will include factories, industrial offices, warehouses, workshops or other industrial buildings.
Exclusion criteria	<input type="checkbox"/> Industrial areas that are accessed by a private road. e.g. Industrial parks where the listed address is the main road at the front of the estate. <input type="checkbox"/> More than 10% of the street length contains retail shops.
RECREATIONAL PARK	
Summary	A public outdoor space frequently visited by individuals and families for recreation and leisure.
Inclusion criteria	<input type="checkbox"/> Has one or more of the following: a playground or covered eating area (e.g. a rotunda) or barbeque or similar substantial piece of infrastructure. <input type="checkbox"/> 50% or more open area (i.e. grass, paths) that is not playgrounds or dense vegetation.
Exclusion criteria	<input type="checkbox"/> Parks with food retail outlets (kiosks, takeaway stores etc.) within the site or within 50 m of the park boundary.
BEACH	
Summary	A mostly sandy beach frequently visited by people for activities such as swimming, walking, other recreation and relaxation.
Inclusion criteria	<input type="checkbox"/> The majority (i.e. 90% or more) of the beach area to be sampled is sand (or sand covered in seaweed etc.).
Exclusion criteria	<input type="checkbox"/> Piers, jetties, wharves or boat ramps are within 100 metres of the location of the transects to be surveyed.
MAIN ROAD	
Summary	Straight open stretches of sealed road with wide verges. Roads that typically act as an arterial for traffic between and around population centres.
Inclusion criteria	<input type="checkbox"/> A main road linking population centres (towns/cities) <input type="checkbox"/> Vegetation bordering each side of the road
Exclusion criteria	<input type="checkbox"/> Petrol stations, fast food outlets and service centres within 2 km of the site <input type="checkbox"/> Site has bridges, overpasses, rest stops, turn-offs, intersections (except driveways), and slipways <input type="checkbox"/> Areas with steeply sloped verges (i.e. >45°) are excluded.

6.0 Appendices

Appendix 2

All Items Count Sheet – Aggregate 2024FY

		Nov-23		May-24		2024FY TOTAL			
		Total Number of Items	Total Volume (l)	Total Number of Items	Total Volume (l)	Average Number of Items	Items /1000m2	Average Volume (l)	Volume (l)/1000m2
P	Cigarette butts and filters	2,163	4.33	2,225	4.45	2,194	20.38	4.39	0.04
L									
A	Bag - Dog Poo	14	2.80	6	1.20	10	0.09	2.00	0.02
S	Bag - Fruit/Veg	18	3.60	2	0.40	10	0.09	2.00	0.02
T	Bag - Green Reusable	2	2.00	-	-	1	0.01	1.00	0.01
I	Bag - Heavy Boutique	8	8.00	1	1.00	5	0.04	4.50	0.04
C	Bag - Heavy Supermrkt	2	2.00	9	9.00	6	0.05	5.50	0.05
	Bag – Ice	3	1.50	3	1.50	3	0.03	1.50	0.01
	Bag -Lightweight shop	15	3.00	4	0.80	10	0.09	1.90	0.02
	Bag - Mesh Bags	7	0.70	-	-	4	0.03	0.35	0.00
	Bag - Other	25	5.00	6	1.20	16	0.14	3.10	0.03
	Bread Bag Tags/twist ties	11	0.01	11	0.01	11	0.10	0.01	0.00
	Cable ties	114	0.57	113	0.57	114	1.05	0.57	0.01
	Cigarette Lighters	3	0.03	8	0.08	6	0.05	0.06	0.00
	Cigarette packet cellophane wrap	13	0.01	13	0.01	13	0.12	0.01	0.00
	Cotton buds/tips	13	0.01	11	0.01	12	0.11	0.01	0.00
	Cup – Single use	24	4.80	7	1.40	16	0.14	3.10	0.03
	Cup – Reusable	1	0.20	2	0.40	2	0.01	0.30	0.00
	Cutlery/chopsticks	5	0.05	2	0.02	4	0.03	0.04	0.00
	Fishing related	5	0.25	-	-	3	0.02	0.13	0.00
	Food/confect. Wrappers	505	25.25	503	25.15	504	4.68	25.20	0.23
	Lids - Beverage container lids /caps	235	4.70	269	5.38	252	2.34	5.04	0.05
	Lids - Plastic cup lid	20	0.40	17	0.34	19	0.17	0.37	0.00
	Lids -Coffee cup lid	25	0.50	49	0.98	37	0.34	0.74	0.01
	Lids - Other	40	0.80	48	0.96	44	0.41	0.88	0.01
	Lollipop Sticks	39	0.04	39	0.04	39	0.36	0.04	0.00
	Non-Food Bottle	9	4.50	9	4.50	9	0.08	4.50	0.04
	Non-Food package	77	38.50	61	30.50	69	0.64	34.50	0.32
	Other Food Package	49	24.50	58	29.00	54	0.50	26.75	0.25
	Plate/bowl – single use	2	0.40	6	1.20	4	0.04	0.80	0.01
	Plate/bowl – reusable	4	0.80	1	0.20	3	0.02	0.50	0.00
	Plastic wrap non-food	21	4.20	17	3.40	19	0.18	3.80	0.04
	Six pack rings	6	1.20	4	0.80	5	0.05	1.00	0.01
	Strapping band	103	20.60	54	10.80	79	0.73	15.70	0.15
	Stirrers	2	0.00	1	0.00	2	0.01	0.00	0.00
	Straws	23	0.12	31	0.16	27	0.25	0.14	0.00
	Syringe	1	0.01	-	-	1	0.00	0.01	0.00
	Takeaway food container	30	15.00	16	8.00	23	0.21	11.50	0.11
	Tape/narrow soft plastic film	152	7.60	23	1.15	88	0.81	4.38	0.04
	Tobacco pouch	3	0.30	1	0.10	2	0.02	0.20	0.00
	Toys	30	3.00	14	1.40	22	0.20	2.20	0.02
	Whipper snipper cord	16	0.08	22	0.11	19	0.18	0.10	0.00
	Other plastic item	125	12.50	117	11.70	121	1.12	12.10	0.11
M	Aerosol cans	3	0.90	2	0.60	3	0.02	0.75	0.01
E	Aluminium foil wrap	117	11.70	60	6.00	89	0.82	8.85	0.08
T	Foil takeaway container	3	1.50	1	0.50	2	0.02	1.00	0.01
A	Lids, bottle tops, can ring pulls	197	0.39	244	0.49	221	2.05	0.44	0.00
L	Other metal item	496	49.60	190	19.00	343	3.19	34.30	0.32
GLASS	Glass jars	-	-	-	-	-	-	-	-
	Other glass item	2	0.40	3	0.60	3	0.02	0.50	0.00
P	Cigarette packets	27	2.70	31	3.10	29	0.27	2.90	0.03
A	Cup - Coffee cup	30	6.00	44	8.80	37	0.34	7.40	0.07
P	Cup - Other paper cup	51	10.20	25	5.00	38	0.35	7.60	0.07
E	Ice cream wrappers	2	0.04	6	0.12	4	0.04	0.08	0.00
R	Junk mail / free circulars	38	19.00	19	9.50	29	0.26	14.25	0.13
	Newspaper/Magazine	21	10.50	39	19.50	30	0.28	15.00	0.14
&	Packages & boxes	40	20.00	50	25.00	45	0.42	22.50	0.21
	Paper bags	17	5.10	13	3.90	15	0.14	4.50	0.04
C	Paper/card food packaging	152	76.00	77	38.50	115	1.06	57.25	0.53
A	Paper tissues/napkin	204	10.20	290	14.50	247	2.29	12.35	0.11
R	Shopper docket, tickets/receipts	164	8.20	144	7.20	154	1.43	7.70	0.07

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		Nov-23		May-24		2024FY TOTAL			
		Total Number of Items	Total Volume (l)	Total Number of Items	Total Volume (l)	Average Number of Items	Items /1000m2	Average Volume (l)	Volume (l)/1000m2
D	Other paper & card.	70	3.50	41	2.05	56	0.52	2.78	0.03
RUBBER	Rubber band/hair tie	35	0.18	28	0.14	32	0.29	0.16	0.00
	Rubber toy	4	0.20	-	-	2	0.02	0.10	0.00
	Tyre pieces	24	0.12	2	0.01	13	0.12	0.07	0.00
	Tyres	1	20.00	2	40.00	2	0.01	30.00	0.28
	Other rubber item	38	3.80	26	2.60	32	0.30	3.20	0.03
P	Cups (foam)	1	0.20	-	-	1	0.00	0.10	0.00
O	Food pack./clam shells	-	-	-	-	-	-	-	-
L	Insulation & Packaging	11	11.00	1	1.00	6	0.06	6.00	0.06
Y	Other polystyrene item	67	33.50	1	0.50	34	0.32	17.00	0.16
CLOTH	Clothing	37	37.00	36	36.00	37	0.34	36.50	0.34
	Other cloth item	67	13.40	59	11.80	63	0.59	12.60	0.12
O	Balloons	13	0.65	13	0.65	13	0.12	0.65	0.01
T	Batteries	10	0.10	10	0.10	10	0.09	0.10	0.00
H	Condom	1	0.01	1	0.01	1	0.01	0.01	0.00
E	Construction materials	151	54.36	181	65.16	166	1.54	59.76	0.55
R	Cotton buds/tips (non- plastic)	11	0.01	13	0.01	12	0.11	0.01	0.00
	Cutlery (non-plastic)	17	0.17	33	0.33	25	0.23	0.25	0.00
M	Dog poo	59	2.95	41	2.05	50	0.46	2.50	0.02
A	Electrical wire	40	0.40	37	0.37	39	0.36	0.39	0.00
T	Face mask – disposable	13	1.30	4	0.40	9	0.08	0.85	0.01
E	Face mask – reusable	-	-	1	0.10	1	0.00	0.05	0.00
R	Fruit/vegetable/food	84	16.80	115	23.00	100	0.92	19.90	0.18
I	Gum	5	-	14	-	10	0.09	-	-
A	Ice Cream Stick	11	0.01	20	0.02	16	0.14	0.01	0.00
L	Nappy	-	-	2	1.00	1	0.01	0.50	0.00
S	Personal Effects	44	8.80	20	4.00	32	0.30	6.40	0.06
	Plate/bowl (non-plastic)	4	0.80	3	0.60	4	0.03	0.70	0.01
	Rope/string	65	13.00	52	10.40	59	0.54	11.70	0.11
	Sanitary Items	8	1.60	15	3.00	12	0.11	2.30	0.02
	Stirrers (non-plastic)	8	0.02	14	0.03	11	0.10	0.02	0.00
	Straw (non-plastic)	87	0.44	132	0.66	110	1.02	0.55	0.01
	Vape packaging	14	0.70	-	-	7	0.07	0.35	0.00
	Vape pen	14	0.70	10	0.50	12	0.11	0.60	0.01
	Vehicle parts	27	1.35	7	0.35	17	0.16	0.85	0.01
	Wet wipes	81	4.05	35	1.75	58	0.54	2.90	0.03
	Wooden items	79	7.90	133	13.30	106	0.98	10.60	0.10
	Unknown item	7	0.70	62	6.20	35	0.32	3.45	0.03
Beverage containers									
Plastic	Drink pouches <150 ml	-	-	-	-	-	-	-	-
	Drink pouches 150-499mL	-	-	-	-	-	-	-	-
	Drink pouches 500-999mL	-	-	2	1.20	1	0.01	0.60	0.01
	Drink pouches 1000mL-3000mL	-	-	-	-	-	-	-	-
	Drink pouches >3000mL	-	-	-	-	-	-	-	-
Plastic	Flav. Milk <150 ml	1	0.12	-	-	1	0.00	0.06	0.00
	Flav. Milk 150-499mL	2	0.75	-	-	1	0.01	0.38	0.00
	Flav. Milk 500-999mL	2	1.20	1	0.60	2	0.01	0.90	0.01
	Flav. Milk 1000mL-3000mL	-	-	-	-	-	-	-	-
	Flav. Milk >3000mL	-	-	-	-	-	-	-	-
Plastic	Soft Dr/FW/FJD/SpD/EnD <150 ml	1	0.12	-	-	1	0.00	0.06	0.00
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	3	1.13	2	0.75	3	0.02	0.94	0.01
	Soft Dr/FW/FJD/SpD/EnD 500-999mL	7	4.20	9	5.40	8	0.07	4.80	0.04
	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1	1.50	6	9.00	4	0.03	5.25	0.05
	Soft Dr/FW/FJD/SpD/EnD >3000mL	-	-	-	-	-	-	-	-
Plastic	Fruit/vegetable juice <150 ml	-	-	-	-	-	-	-	-
	Fruit/vegetable juice 150-499mL	3	1.13	-	-	2	0.01	0.56	0.01
	Fruit/vegetable juice 500-999mL	-	-	-	-	-	-	-	-
	Fruit/vegetable juice 1000mL-3000mL	1	1.50	1	1.50	1	0.01	1.50	0.01
	Fruit/vegetable juice >3000mL	-	-	-	-	-	-	-	-

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		Nov-23		May-24		2024FY TOTAL			
		Total Number of Items	Total Volume (l)	Total Number of Items	Total Volume (l)	Average Number of Items	Items /1000m2	Average Volume (l)	Volume (l)/1000m2
Plastic	Water <150 ml	-	-	-	-	-	-	-	-
	Water 150-499mL	8	3.00	-	-	4	0.04	1.50	0.01
	Water 500-999mL	3	1.80	2	1.20	3	0.02	1.50	0.01
	Water 1000mL-3000mL	-	-	4	6.00	2	0.02	3.00	0.03
	Water >3000mL	-	-	-	-	-	-	-	-
Plastic	White milk <150 ml	1	0.12	-	-	1	0.00	0.06	0.00
	White milk 150-499mL	6	3.00	-	-	3	0.03	1.50	0.01
	White milk 500-999mL	-	-	-	-	-	-	-	-
	White milk 1000mL-3000mL	12	24.00	-	-	6	0.06	12.00	0.11
	White milk >3000mL	-	-	1	3.50	1	0.00	1.75	0.02
Metal	Beer <150 ml	-	-	-	-	-	-	-	-
	Beer 150-499mL	7	2.63	1	0.38	4	0.04	1.50	0.01
	Beer 500-999mL	-	-	14	8.40	7	0.07	4.20	0.04
	Beer 1000mL-3000mL	-	-	-	-	-	-	-	-
	Beer >3000mL	-	-	-	-	-	-	-	-
Metal	Cider/fruit based <150 ml	-	-	-	-	-	-	-	-
	Cider/fruit based 150-499mL	-	-	1	0.38	1	0.00	0.19	0.00
	Cider/fruit based 500-999mL	-	-	-	-	-	-	-	-
	Cider/fruit based 1000mL-3000mL	-	-	-	-	-	-	-	-
	Cider/fruit based >3000mL	-	-	-	-	-	-	-	-
Metal	Premixed spirit drinks <150 ml	-	-	-	-	-	-	-	-
	Premixed spirit drinks 150-499mL	20	7.50	3	1.13	12	0.11	4.31	0.04
	Premixed spirit drinks 500-999mL	-	-	-	-	-	-	-	-
	Premixed spirit drinks 1000mL-3000mL	-	-	-	-	-	-	-	-
	Premixed spirit drinks >3000mL	-	-	-	-	-	-	-	-
Metal	Soft Dr/FW/FJD/SpD/EnD <150 ml	2	0.24	1	0.12	2	0.01	0.18	0.00
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	16	6.00	8	3.00	12	0.11	4.50	0.04
	Soft Dr/FW/FJD/SpD/EnD 500-999mL	1	0.60	6	3.60	4	0.03	2.10	0.02
	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	-	-	-	-	-	-	-	-
	Soft Dr/FW/FJD/SpD/EnD >3000mL	-	-	-	-	-	-	-	-
Metal	Wine Bladders <150 ml	1	0.12	-	-	1	0.00	0.06	0.00
	Wine Bladders 150-499mL	-	-	-	-	-	-	-	-
	Wine Bladders 500-999mL	-	-	-	-	-	-	-	-
	Wine Bladders 1000mL-3000mL	-	-	-	-	-	-	-	-
	Wine Bladders >3000mL	-	-	-	-	-	-	-	-
Glass	Wine <150 ml	-	-	-	-	-	-	-	-
	Wine 150-499mL	-	-	-	-	-	-	-	-
	Wine 500-999mL	-	-	-	-	-	-	-	-
	Wine 1000mL-3000mL	-	-	1	1.50	1	0.00	0.75	0.01
	Wine >3000mL	-	-	-	-	-	-	-	-
Glass	Spirit <150 ml	-	-	-	-	-	-	-	-
	Spirit 150-499mL	-	-	-	-	-	-	-	-
	Spirit 500-999mL	2	1.40	1	0.70	2	0.01	1.05	0.01
	Spirit 1000mL-3000mL	-	-	-	-	-	-	-	-
	Spirit >3000mL	-	-	-	-	-	-	-	-
Glass	Premixed spirit drinks <150 ml	-	-	-	-	-	-	-	-
	Premixed spirit drinks 150-499mL	2	0.75	1	0.38	2	0.01	0.56	0.01
	Premixed spirit drinks 500-999mL	-	-	-	-	-	-	-	-
	Premixed spirit drinks 1000mL-3000mL	-	-	-	-	-	-	-	-
	Premixed spirit drinks >3000mL	-	-	-	-	-	-	-	-
Glass	Beer <150 ml	-	-	-	-	-	-	-	-
	Beer 150-499mL	10	3.75	3	1.13	7	0.06	2.44	0.02
	Beer 500-999mL	-	-	3	1.80	2	0.01	0.90	0.01
	Beer 1000mL-3000mL	-	-	-	-	-	-	-	-
	Beer >3000mL	-	-	-	-	-	-	-	-
Glass	Cider <150 ml	-	-	-	-	-	-	-	-
	Cider 150-499mL	-	-	-	-	-	-	-	-
	Cider 500-999mL	-	-	-	-	-	-	-	-
	Cider 1000mL-3000mL	-	-	-	-	-	-	-	-
	Cider >3000mL	-	-	-	-	-	-	-	-

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		Nov-23		May-24		2024FY TOTAL			
		Total Number of Items	Total Volume (l)	Total Number of Items	Total Volume (l)	Average Number of Items	Items /1000m2	Average Volume (l)	Volume (l)/1000m2
Glass	Soft Dr/FW/FJD/SpD/EnD <150 ml	-	-	-	-	-	-	-	-
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	1	0.38	-	-	1	0.00	0.19	0.00
	Soft Dr/FW/FJD/SpD/EnD 500-999mL	-	-	3	1.80	2	0.01	0.90	0.01
	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	-	-	-	-	-	-	-	-
	Soft Dr/FW/FJD/SpD/EnD >3000mL	-	-	-	-	-	-	-	-
Glass	Fruit juice <150 ml	-	-	-	-	-	-	-	-
	Fruit juice 150-499mL	1	0.38	-	-	1	0.00	0.19	0.00
	Fruit juice 500-999mL	-	-	-	-	-	-	-	-
	Fruit juice 1000mL-3000mL	-	-	-	-	-	-	-	-
	Fruit juice >3000mL	-	-	-	-	-	-	-	-
Glass	Water <150 ml	-	-	-	-	-	-	-	-
	Water 150-499mL	-	-	-	-	-	-	-	-
	Water 500-999mL	-	-	-	-	-	-	-	-
	Water 1000mL-3000mL	-	-	-	-	-	-	-	-
	Water >3000mL	-	-	-	-	-	-	-	-
Glass	Wine-based/wine cooler <150 ml	-	-	-	-	-	-	-	-
	Wine-based/wine cooler 150-499mL	-	-	-	-	-	-	-	-
	Wine-based/wine cooler 500-999mL	-	-	-	-	-	-	-	-
	Wine-based/wine cooler 1000mL-3000mL	-	-	-	-	-	-	-	-
	Wine-based/wine cooler >3000mL	-	-	-	-	-	-	-	-
Card	Flav. milk (Cartons) <150 ml	-	-	-	-	-	-	-	-
	Flav. milk (Cartons) 150-499mL	1	0.38	2	0.75	2	0.01	0.56	0.01
	Flav. milk (Cartons) 500-999mL	15	9.00	-	-	8	0.07	4.50	0.04
	Flav. milk (Cartons) 1000mL-3000mL	-	-	-	-	-	-	-	-
	Flav. milk (Cartons) >3000mL	-	-	-	-	-	-	-	-
Card	Fruit Juice <150 ml	-	-	-	-	-	-	-	-
	Fruit Juice 150-499mL	1	0.38	1	0.38	1	0.01	0.38	0.00
	Fruit Juice 500-999mL	-	-	-	-	-	-	-	-
	Fruit Juice 1000mL-3000mL	-	-	-	-	-	-	-	-
	Fruit Juice >3000mL	-	-	-	-	-	-	-	-
Card	FW/FW/FJD/SpD/EnD <150 ml	-	-	-	-	-	-	-	-
	FW/FW/FJD/SpD/EnD 150-499mL	-	-	-	-	-	-	-	-
	FW/FW/FJD/SpD/EnD 500-999mL	1	0.60	-	-	1	0.00	0.30	0.00
	FW/FW/FJD/SpD/EnD 1000mL-3000mL	-	-	-	-	-	-	-	-
	FW/FW/FJD/SpD/EnD >3000mL	-	-	-	-	-	-	-	-
Card	Milk, plain (white) <150 ml	-	-	-	-	-	-	-	-
	Milk, plain (white) 150-499mL	1	0.38	-	-	1	0.00	0.19	0.00
	Milk, plain (white) 500-999mL	-	-	-	-	-	-	-	-
	Milk, plain (white) 1000mL-3000mL	-	-	-	-	-	-	-	-
	Milk, plain (white) >3000mL	-	-	-	-	-	-	-	-
Any	Other beverage <150 ml	-	-	-	-	-	-	-	-
	Other beverage 150-499mL	-	-	-	-	-	-	-	-
	Other beverage 500-999mL	-	-	-	-	-	-	-	-
	Other beverage 1000mL-3000mL	-	-	1	1.50	1	0.00	0.75	0.01
	Other beverage >3000mL	-	-	1	3.50	1	0.00	1.75	0.02
Fragments	Hard plastic Size 1 – Small (> 2.5 cm to 8 cm)	753	6.02	854	6.83	804	7.46	6.43	0.06
	Hard plastic Size 2 – Medium (> 8 cm to 16 cm)	335	5.36	383	6.13	359	3.33	5.74	0.05
	Hard plastic Size 3 – Large (> 16 cm)	65	2.08	146	4.67	106	0.98	3.38	0.03
Fragments	Soft plastic Size 1 – Small (> 2.5 cm to 8 cm)	641	5.13	349	2.79	495	4.60	3.96	0.04
	Soft plastic Size 2 – Medium (> 8 cm to 16 cm)	234	3.74	256	4.10	245	2.28	3.92	0.04
	Soft plastic Size 3 – Large (> 16 cm)	63	2.02	117	3.74	90	0.84	2.88	0.03

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		Nov-23		May-24		2024FY TOTAL			
		Total Number of Items	Total Volume (l)	Total Number of Items	Total Volume (l)	Average Number of Items	Items /1000m2	Average Volume (l)	Volume (l)/1000m2
Fragments	Metal Size 1 – Small (> 2.5 cm to 8 cm)	115	2.76	162	3.89	139	1.29	3.32	0.03
	Metal Size 2 – Medium (> 8 cm to 16 cm)	68	3.26	52	2.50	60	0.56	2.88	0.03
	Metal Size 3 – Large (> 16 cm)	22	2.11	25	2.40	24	0.22	2.26	0.02
Fragments	Glass Size 1 – Small (> 2.5 cm to 8 cm)	216	1.73	260	2.08	238	2.21	1.90	0.02
	Glass Size 2 – Medium (> 8 cm to 16 cm)	56	0.90	43	0.69	50	0.46	0.79	0.01
	Glass Size 3 – Large (> 16 cm)	12	0.38	5	0.16	9	0.08	0.27	0.00
Fragments	Paper and Card Size 1 – Small (> 2.5 cm to 8 cm)	976	7.81	509	4.07	743	6.90	5.94	0.06
	Paper and Card Size 2 – Medium (> 8 cm to 16 cm)	305	4.88	235	3.76	270	2.51	4.32	0.04
	Paper and Card Size 3 – Large (> 16 cm)	57	1.82	101	3.23	79	0.73	2.53	0.02
Fragments	Rubber Size 1 – Small (> 2.5 cm to 8 cm)	54	0.43	56	0.45	55	0.51	0.44	0.00
	Rubber Size 2 – Medium (> 8 cm to 16 cm)	32	0.51	48	0.77	40	0.37	0.64	0.01
	Rubber Size 3 – Large (> 16 cm)	18	0.58	15	0.48	17	0.15	0.53	0.00
Fragments	Polystyrene Size 1 – Small (> 2.5 cm to 8 cm)	146	3.50	68	1.63	107	0.99	2.57	0.02
	Polystyrene Size 2 – Medium (> 8 cm to 16 cm)	53	2.54	37	1.78	45	0.42	2.16	0.02
	Polystyrene Size 3 – Large (> 16 cm)	14	1.34	6	0.58	10	0.09	0.96	0.01
Fragments	Cloth Size 1 – Small (> 2.5 cm to 8 cm)	100	0.80	59	0.47	80	0.74	0.64	0.01
	Cloth Size 2 – Medium (> 8 cm to 16 cm)	51	0.82	45	0.72	48	0.45	0.77	0.01
	Cloth Size 3 – Large (> 16 cm)	28	0.90	23	0.74	26	0.24	0.82	0.01
	TOTAL	11,282.00	815.45	10,118	666.53	10,700	99.37	740.99	6.88

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Appendix 3

Total Estimated Volume by Item

	Item	Estimated volume (ml)	Estimated volume (l)
PLASTIC	Cigarette butts and filters	2	0.002
	Bag - Dog Poo	200	0.2
	Bag - Fruit/Veg	200	0.2
	Bag - Green Reusable	1000	1
	Bag - Heavy Boutique	1000	1
	Bag - Heavy Supermrkt	1000	1
	Bag - Ice	500	0.5
	Bag - Lightweight shop	200	0.2
	Bag - Mesh Bags	100	0.1
	Bag - Other	200	0.2
	Bread Bag Tags/twist ties	1	0.001
	Cable ties	5	0.005
	Cigarette Lighters	10	0.01
	Cigarette packet cellophane wrap	1.1	0.0011
	Cotton buds/tips	1	0.001
	Cup - Single use	200	0.2
	Cup - Reusable	200	0.2
	Cutlery/chopsticks	10	0.01
	Fishing related	50	0.05
	Food/confect. Wrappers	50	0.05
	Lids - Beverage container lids /caps	20	0.02
	Lids - Plastic cup lid	20	0.02
	Lids -Coffee cup lid	20	0.02
	Lids - Other	20	0.02
	Lollipop Sticks	1	0.001
	Non-Food Bottle	500	0.5
	Non-Food package	500	0.5
	Other Food Package	500	0.5
	Plate/bowl - single use	200	0.2
	Plate/bowl - reusable	200	0.2
	Plastic wrap non-food	200	0.2
	Six pack rings	200	0.2
	Strapping band	200	0.2
	Stirrers	1	0.001
	Straws	5	0.005
	Syringe	10	0.01
	Takeaway food container	500	0.5
	Tape/narrow soft plastic film	50	0.05

	Item	Estimated volume (ml)	Estimated volume (l)
PLASTIC	Tobacco pouch	100	0.1
	Toys	100	0.1
	Whipper snipper cord	5	0.005
	Other plastic item	100	0.1
METAL	Aerosol cans	300	0.3
	Aluminium foil wrap	100	0.1
	Foil takeaway container	500	0.5
	Lids, bottle tops, can ring pulls	2	0.002
Other metal item	100	0.1	
GLASS	Glass jars	375	0.375
	Other glass item	200	0.2
PAPER & CARD	Cigarette packets	100	0.1
	Cup - Coffee cup	200	0.2
	Cup - Other paper cup	200	0.2
	Ice cream wrappers	20	0.02
	Junk mail / free circulars	500	0.5
	Newspaper/Magazine	500	0.5
	Packages & boxes	500	0.5
	Paper bags	300	0.3
	Paper/card food packaging	500	0.5
	Paper tissues/napkin	50	0.05
	Shopper docketts, tickets/receipts	50	0.05
	Other paper & card.	50	0.05
	RUBBER	Rubber band/hair tie	5
Rubber toy		50	0.05
Tyre pieces		5	0.005
Tyres		20000	20
Other rubber item		100	0.1
POLY	Cups (foam)	200	0.2
	Food pack./clam shells	500	0.5
	Insulation & Packaging	1000	1
Other polystyrene item	500	0.5	
CLOTH	Clothing	1000	1
	Other cloth item	200	0.2
OTHER	Balloons	50	0.05
	Batteries	10	0.01
	Condom	5	0.005
	Construction materials	360	0.36

	Item	Estimated volume (ml)	Estimated volume (l)
OTHER MATERIALS	Cotton buds/tips (non- plastic)	1	0.001
	Cutlery (non-plastic)	10	0.01
	Dog poo	50	0.05
	Electrical wire	10	0.01
	Face mask - disposable	100	0.1
	Face mask - reusable	100	0.1
	Fruit/vegetable/food	200	0.2
	Gum		0
	Ice Cream Stick	0.9	0.0009
	Nappy	500	0.5
	Personal Effects	200	0.2
	Plate/bowl (non-plastic)	200	0.2
	Rope/string	200	0.2
	Sanitary Items	200	0.2
	Stirrers (non-plastic)	2	0.002
	Straw (non-plastic)	5	0.005
	Vape packaging	50	0.05
	Vape pen	50	0.05
	Vehicle parts	50	0.05
	Wet wipes	50	0.05
Wooden items	100	0.1	
Unknown item	100	0.1	
BEVERAGE CONTAINERS			
			0
PLASTIC	Drink pouches <150 ml	120	0.12
	Drink pouches 150-499mL	375	0.375
	Drink pouches 500-999mL	600	0.6
	Drink pouches 1000mL-3000mL	1500	1.5
	Drink pouches >3000mL	3500	3.5
	Flav. Milk <150 ml	120	0.12
	Flav. Milk 150-499mL	375	0.375
	Flav. Milk 500-999mL	600	0.6
	Flav. Milk 1000mL-3000mL	1500	1.5
	Flav. Milk >3000mL	3500	3.5
	Soft Dr/FW/FJD/SpD/EnD <150 ml	120	0.12
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	375	0.375
Soft Dr/FW/FJD/SpD/EnD 500-999mL	600	0.6	

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	Item	Estimated volume (ml)	Estimated volume (l)
PLASTIC	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1500	1.5
	Soft Dr/FW/FJD/SpD/EnD >3000mL	3500	3.5
	Fruit/vegetable juice <150 ml	120	0.12
	Fruit/vegetable juice 150-499mL	375	0.375
	Fruit/vegetable juice 500-999mL	600	0.6
	Fruit/vegetable juice 1000mL-3000mL	1500	1.5
	Fruit/vegetable juice >3000mL	3500	3.5
	Water <150 ml	120	0.12
	Water 150-499mL	375	0.375
	Water 500-999mL	600	0.6
	Water 1000mL-3000mL	1500	1.5
	Water >3000mL	3500	3.5
	White milk <150 ml	120	0.12
	White milk 150-499mL	500	0.5
	White milk 500-999mL	1000	1
	White milk 1000mL-3000mL	2000	2
	White milk >3000mL	3500	3.5
METAL	Beer <150 ml	120	0.12
	Beer 150-499mL	375	0.375
	Beer 500-999mL	600	0.6
	Beer 1000mL-3000mL	1500	1.5
	Beer >3000mL	3500	3.5
	Cider/fruit based <150 ml	120	0.12
	Cider/fruit based 150-499mL	375	0.375
	Cider/fruit based 500-999mL	600	0.6
	Cider/fruit based 1000mL-3000mL	1500	1.5
	Cider/fruit based >3000mL	3500	3.5
	Premixed spirit drinks <150 ml	120	0.12
	Premixed spirit drinks 150-499mL	375	0.375
	Premixed spirit drinks 500-999mL	600	0.6
	Premixed spirit drinks 1000mL-3000mL	1500	1.5
	Premixed spirit drinks >3000mL	3500	3.5
	Soft Dr/FW/FJD/SpD/EnD <150 ml	120	0.12
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	375	0.375
	Soft Dr/FW/FJD/SpD/EnD 500-999mL	600	0.6
	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1500	1.5
	Soft Dr/FW/FJD/SpD/EnD >3000mL	3500	3.5
	Fruit juice <150 ml	120	0.12
	Fruit juice 150-499mL	375	0.375
	Fruit juice 500-999mL	600	0.6
Fruit juice 1000mL-3000mL	1500	1.5	
Fruit juice >3000mL	3500	3.5	
Water <150 ml	120	0.12	
Water 150-499mL	375	0.375	
Water 500-999mL	600	0.6	
Water 1000mL-3000mL	1500	1.5	
Water >3000mL	3500	3.5	

	Item	Estimated volume (ml)	Estimated volume (l)
GLASS	Wine <150 ml	120	0.12
	Wine 150-499mL	375	0.375
	Wine 500-999mL	750	0.75
	Wine 1000mL-3000mL	1500	1.5
	Wine >3000mL	3000	3
	Spirit <150 ml	120	0.12
	Spirit 150-499mL	375	0.375
	Spirit 500-999mL	700	0.7
	Spirit 1000mL-3000mL	1500	1.5
	Spirit >3000mL	3500	3.5
	Premixed spirit drinks <150 ml	120	0.12
	Premixed spirit drinks 150-499mL	375	0.375
	Premixed spirit drinks 500-999mL	600	0.6
	Premixed spirit drinks 1000mL-3000mL	1500	1.5
	Premixed spirit drinks >3000mL	3500	3.5
	Beer <150 ml	120	0.12
	Beer 150-499mL	375	0.375
	Beer 500-999mL	600	0.6
	Beer 1000mL-3000mL	1500	1.5
	Beer >3000mL	3500	3.5
	Cider <150 ml	120	0.12
	Cider 150-499mL	375	0.375
	Cider 500-999mL	600	0.6
	Cider 1000mL-3000mL	1500	1.5
	Cider >3000mL	3500	3.5
	Soft Dr/FW/FJD/SpD/EnD <150 ml	120	0.12
	Soft Dr/FW/FJD/SpD/EnD 150-499mL	375	0.375
	Soft Dr/FW/FJD/SpD/EnD 500-999mL	600	0.6
	Soft Dr/FW/FJD/SpD/EnD 1000mL-3000mL	1500	1.5
	Soft Dr/FW/FJD/SpD/EnD >3000mL	3500	3.5
	Fruit juice <150 ml	120	0.12
	Fruit juice 150-499mL	375	0.375
	Fruit juice 500-999mL	600	0.6
Fruit juice 1000mL-3000mL	1500	1.5	
Fruit juice >3000mL	3500	3.5	
Water <150 ml	120	0.12	
Water 150-499mL	375	0.375	
Water 500-999mL	600	0.6	
Water 1000mL-3000mL	1500	1.5	
Water >3000mL	3500	3.5	

	Item	Estimated volume (ml)	Estimated volume (l)
GLASS	Wine-based/wine cooler <150 ml	120	0.12
	Wine-based/wine cooler 150-499mL	375	0.375
	Wine-based/wine cooler 500-999mL	600	0.6
	Wine-based/wine cooler 1000mL-3000mL	1500	1.5
	Wine-based/wine cooler >3000mL	3500	3.5
	CARD	Flav. milk (Cartons) <150 ml	120
Flav. milk (Cartons) 150-499mL		375	0.375
Flav. milk (Cartons) 500-999mL		600	0.6
Flav. milk (Cartons) 1000mL-3000mL		1500	1.5
Flav. milk (Cartons) >3000mL		3500	3.5
Fruit Juice <150 ml		120	0.12
Fruit Juice 150-499mL		375	0.375
Fruit Juice 500-999mL		600	0.6
Fruit Juice 1000mL-3000mL		1500	1.5
Fruit Juice >3000mL		3500	3.5
FW/FW/FJD/SpD/EnD <150 ml		120	0.12
FW/FW/FJD/SpD/EnD 150-499mL		375	0.375
FW/FW/FJD/SpD/EnD 500-999mL		600	0.6
FW/FW/FJD/SpD/EnD 1000mL-3000mL		1500	1.5
FW/FW/FJD/SpD/EnD >3000mL	3500	3.5	
ANY	Milk, plain (white) <150 ml	120	0.12
	Milk, plain (white) 150-499mL	375	0.375
	Milk, plain (white) 500-999mL	600	0.6
	Milk, plain (white) 1000mL-3000mL	1500	1.5
	Milk, plain (white) >3000mL	3500	3.5
	Other beverage <150 ml	120	0.12
	Other beverage 150-499mL	375	0.375
Other beverage 500-999mL	600	0.6	
Other beverage 1000mL-3000mL	1500	1.5	
Other beverage >3000mL	3500	3.5	

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	Item	Estimated volume (ml)	Estimated volume (l)
	FRAGMENTS		0
PLASTIC	Hard plastic Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Hard plastic Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Hard plastic Size 3 - Large (> 16 cm)	32	0.032
	Soft plastic Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Soft plastic Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Soft plastic Size 3 - Large (> 16 cm)	32	0.032
METAL	Metal Size 1 - Small (> 2.5 cm to 8 cm)	24	0.024
	Metal Size 2 - Medium (> 8 cm to 16 cm)	48	0.048
	Metal Size 3 - Large (> 16 cm)	96	0.096
GLASS	Glass Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Glass Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Glass Size 3 - Large (> 16 cm)	32	0.032
CARD	Paper and Card Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Paper and Card Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Paper and Card Size 3 - Large (> 16 cm)	32	0.032
RUBBER	Rubber Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Rubber Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Rubber Size 3 - Large (> 16 cm)	32	0.032
POLY	Polystyrene Size 1 - Small (> 2.5 cm to 8 cm)	24	0.024
	Polystyrene Size 2 - Medium (> 8 cm to 16 cm)	48	0.048
	Polystyrene Size 3 - Large (> 16 cm)	96	0.096
CLOTH	Cloth Size 1 - Small (> 2.5 cm to 8 cm)	8	0.008
	Cloth Size 2 - Medium (> 8 cm to 16 cm)	16	0.016
	Cloth Size 3 - Large (> 16 cm)	32	0.032

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Appendix 4

Category Classifications: Single Use Plastics and Takeaway Food Packaging

	SINGLE USE PLASTIC	TAKEAWAY FOOD PACKAGING
Cigarette butts and filters		
Bag - Dog Poo		
Bag - Fruit/Veg		
Bag - Green Reusable		
Bag - Heavy Boutique	Y	
Bag - Heavy Supermrkt	Y	
Bag - Ice		
Bag - Lightweight shop	Y	
Bag - Mesh Bags	Y	
Bag - Other	Y	
Bread Bag Tags/twist ties		
Cable ties		
Cigarette Lighters		
Cigarette packet cellophane wrap		
Cotton buds/tips	Y	
Cup - Single use	Y	Y
Cup - Reusable		
Cutlery/chopsticks	Y	Y
Fishing related		
Food/confect. Wrappers		Y
Lids - Beverage container lids /caps		Y
Lids - Plastic cup lid	Y	Y
Lids -Coffee cup lid	Y	Y
Lids - Other	Y	Y
Lollipop Sticks	Y	Y
Non-Food Bottle		
Non-Food package		
Other Food Package	Y	
Plate/bowl - single use	Y	Y
Plate/bowl - reusable		
Plastic wrap non-food		
Six pack rings		Y
Strapping band		
Stirrers	Y	Y
Straws	Y	Y
Syringe		
Takeaway food container	Y	Y
Tape/narrow soft plastic film		

	SINGLE USE PLASTIC	TAKEAWAY FOOD PACKAGING
PLASTIC		
Tobacco pouch		
Toys		
Whipper snipper cord		
Other plastic item		
METAL		
Aerosol cans		
Aluminium foil wrap		
Foil takeaway container		Y
Lids, bottle tops, can ring pulls		Y
Other metal item		
GLASS		
Glass jars		
Other glass item		
PAPER & CARD		
Cigarette packets		
Cup - Coffee cup	Y	Y
Cup - Other paper cup		Y
Ice cream wrappers		Y
Junk mail / free circulars		
Newspaper/Magazine		
Packages & boxes		
Paper bags		
Paper/card food packaging		Y
Paper tissues/napkin		
Shopper docketts, tickets/receipts		
Other paper & card.		
RUBBER		
Rubber band/hair tie		
Rubber toy		
Tyre pieces		
Tyres		
Other rubber item		
POLY		
Cups (foam)		Y
Food pack./clam shells	Y	Y
Insulation & Packaging		
Other polystyrene item		
CLOTH		
Clothing		
Other cloth item		

	SINGLE USE PLASTIC	TAKEAWAY FOOD PACKAGING
OTHER		
Balloons		
Batteries		
Condom		
Construction materials		
Cotton buds/tips (non- plastic)	Y	
Cutlery (non-plastic)	Y	Y
Dog poo		
Electrical wire		
Face mask - disposable		
Face mask - reusable		
Fruit/vegetable/food		
Gum		
Ice Cream Stick		Y
Nappy		
Personal Effects		
Plate/bowl (non-plastic)	Y	Y
Rope/string		
Sanitary Items		
Stirrers (non-plastic)	Y	Y
Straw (non-plastic)	Y	Y
Vape packaging		
Vape pen		
Vehicle parts		
Wet wipes		
Wooden items		
Unknown item		

6.0 Appendices

Category Classifications: Beverage Containers – Container Deposit Scheme (CDS) and Non-CDS.

	CONTAINER TYPE	CATEGORY
PLASTIC	Drink pouches <150 ml	NON-CDS
	Drink pouches 150-499ml	NON-CDS
	Drink pouches 500-999ml	NON-CDS
	Drink pouches 1000ml-3000ml	NON-CDS
	Drink pouches >3000ml	NON-CDS
	Flav. Milk <150 ml	NON-CDS
	Flav. Milk 150-499ml	CDS
	Flav. Milk 500-999ml	CDS
	Flav. Milk 1000ml-3000ml	NON-CDS
	Flav. Milk >3000ml	NON-CDS
	Soft Dr/FW/FJD/SpD/EnD <150 ml	NON-CDS
	Soft Dr/FW/FJD/SpD/EnD 150-499ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 500-999ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 1000ml-3000ml	CDS
	Soft Dr/FW/FJD/SpD/EnD >3000ml	NON-CDS
	Fruit/vegetable juice <150 ml	NON-CDS
	Fruit/vegetable juice 150-499ml	CDS
	Fruit/vegetable juice 500-999ml	CDS
	Fruit/vegetable juice 1000ml-3000ml	NON-CDS
	Fruit/vegetable juice >3000ml	NON-CDS
Water <150 ml	NON-CDS	
Water 150-499ml	CDS	
Water 500-999ml	CDS	
Water 1000ml-3000ml	CDS	
Water >3000ml	NON-CDS	
White milk <150 ml	NON-CDS	
White milk 150-499ml	NON-CDS	
White milk 500-999ml	NON-CDS	
White milk 1000ml-3000ml	NON-CDS	
White milk >3000ml	NON-CDS	
METAL	Beer <150 ml	NON-CDS
	Beer 150-499ml	CDS
	Beer 500-999ml	CDS

	CONTAINER TYPE	CATEGORY
METAL	Beer 1000ml-3000ml	CDS
	Beer >3000ml	CDS
	Cider/fruit based <150 ml	NON-CDS
	Cider/fruit based 150-499ml	CDS
	Cider/fruit based 500-999ml	CDS
	Cider/fruit based 1000ml-3000ml	CDS
	Cider/fruit based >3000ml	CDS
	Premixed spirit drinks <150 ml	NON-CDS
	Premixed spirit drinks 150-499ml	CDS
	Premixed spirit drinks 500-999ml	CDS
	Premixed spirit drinks 1000ml-3000ml	CDS
	Premixed spirit drinks >3000ml	CDS
	Soft Dr/FW/FJD/SpD/EnD <150 ml	NON-CDS
	Soft Dr/FW/FJD/SpD/EnD 150-499ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 500-999ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 1000ml-3000ml	CDS
	Soft Dr/FW/FJD/SpD/EnD >3000ml	CDS
GLASS	Wine Bladders <150 ml	NON-CDS
	Wine Bladders 150-499ml	NON-CDS
	Wine Bladders 500-999ml	NON-CDS
	Wine Bladders 1000ml-3000ml	NON-CDS
	Wine Bladders >3000ml	NON-CDS
	Wine <150 ml	NON-CDS
	Wine 150-499ml	NON-CDS
	Wine 500-999ml	NON-CDS
	Wine 1000ml-3000ml	NON-CDS
	Wine >3000ml	NON-CDS
Spirit <150 ml	NON-CDS	
Spirit 150-499ml	NON-CDS	
Spirit 500-999ml	NON-CDS	
Spirit 1000ml-3000ml	NON-CDS	
Spirit >3000ml	NON-CDS	
Premixed spirit drinks <150 ml	NON-CDS	
Premixed spirit drinks 150-499ml	CDS	

	CONTAINER TYPE	CATEGORY
GLASS	Premixed spirit drinks 500-999ml	CDS
	Premixed spirit drinks 1000ml-3000ml	CDS
	Premixed spirit drinks >3000ml	CDS
	Beer <150 ml	NON-CDS
	Beer 150-499ml	CDS
	Beer 500-999ml	CDS
	Beer 1000ml-3000ml	CDS
	Beer >3000ml	CDS
	Cider <150 ml	NON-CDS
	Cider 150-499ml	CDS
	Cider 500-999ml	CDS
	Cider 1000ml-3000ml	CDS
	Cider >3000ml	CDS
	Soft Dr/FW/FJD/SpD/EnD <150 ml	NON-CDS
	Soft Dr/FW/FJD/SpD/EnD 150-499ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 500-999ml	CDS
	Soft Dr/FW/FJD/SpD/EnD 1000ml-3000ml	CDS
	Soft Dr/FW/FJD/SpD/EnD >3000ml	CDS
	Fruit juice <150 ml	NON-CDS
	Fruit juice 150-499ml	CDS
Fruit juice 500-999ml	CDS	
Fruit juice 1000ml-3000ml	CDS	
Fruit juice >3000ml	NON-CDS	
Water <150 ml	NON-CDS	
Water 150-499ml	CDS	
Water 500-999ml	CDS	
Water 1000ml-3000ml	CDS	
Water >3000ml	CDS	
Wine-based/wine cooler <150 ml	NON-CDS	
Wine-based/wine cooler 150-499ml	CDS	
Wine-based/wine cooler 500-999ml	CDS	
Wine-based/wine cooler 1000ml-3000ml	CDS	
Wine-based/wine cooler >3000ml	CDS	

	CONTAINER TYPE	CATEGORY
CARD	Flav. milk (Cartons) <150 ml	NON-CDS
	Flav. milk (Cartons) 150-499ml	CDS
	Flav. milk (Cartons) 500-999ml	CDS
	Flav. milk (Cartons) 1000ml-3000ml	NON-CDS
	Flav. milk (Cartons) >3000ml	NON-CDS
	Fruit Juice <150 ml	NON-CDS
	Fruit Juice 150-499ml	CDS
	Fruit Juice 500-999ml	CDS
	Fruit Juice 1000ml-3000ml	NON-CDS
	Fruit Juice >3000ml	NON-CDS
	FW/FW/FJD/SpD/EnD <150 ml	NON-CDS
	FW/FW/FJD/SpD/EnD 150-499ml	CDS
	FW/FW/FJD/SpD/EnD 500-999ml	CDS
	FW/FW/FJD/SpD/EnD 1000ml-3000ml	CDS
FW/FW/FJD/SpD/EnD >3000ml	NON-CDS	
ANY	Milk, plain (white) <150 ml	NON-CDS
	Milk, plain (white) 150-499ml	NON-CDS
	Milk, plain (white) 500-999ml	NON-CDS
	Milk, plain (white) 1000ml-3000ml	NON-CDS
	Milk, plain (white) >3000ml	NON-CDS
	Other beverage <150 ml	NON-CDS
Other beverage 150-499ml	NON-CDS	
Other beverage 500-999ml	NON-CDS	
Other beverage 1000ml-3000ml	NON-CDS	
Other beverage >3000ml	NON-CDS	