

**Strategies, Marketing and Social Research**

Head Office: 259 Glen Osmond Rd, Frewville SA 5063

Tel: 08 8433 0200 Fax: 08 8338 2360

[research@mcgregor.com.au](mailto:research@mcgregor.com.au) [www.mcgregor.com.au](http://www.mcgregor.com.au)



# Litter Strategy Monitoring Wave 79 – May 2020 Report

---

Prepared for: Wendy Bevan

On behalf of: KESAB Environmental Solutions

Project No: 11705

Date: September 2020

## Contents

<b>Section 1 Introduction.....</b>	<b>1</b>
Background.....	2
<b>Section 2 Wave 78 Executive Summary.....</b>	<b>5</b>
Items Counted .....	6
Litter Volume.....	9
3.1 Glass .....	12
Items.....	12
Volume .....	13
3.2 Metal.....	14
Items .....	14
Volume .....	15
3.3 Plastic.....	16
Items.....	16
Volume .....	17
3.4 Paper/ Paperboard.....	18
Items.....	18
Volume .....	19
3.5 Miscellaneous .....	20
Items.....	20
Volume .....	21
3.6 Cigarette Butts .....	22
Items .....	22
Volume .....	23
3.7 Dispersion of Litter by Site Type.....	24
Items.....	24
Volume .....	27
3.8 CDL Beverage Containers .....	29
<b>Data Summary - Items .....</b>	<b>30</b>
<b>Data Summary - Volumes.....</b>	<b>34</b>
<b>Appendix 1: Tracking Graphs.....</b>	<b>38</b>
<b>Unweighted Tracking Graphs - Items.....</b>	<b>44</b>
<b>Unweighted Tracking Graphs - Volume .....</b>	<b>59</b>
<b>Weighted Tracking Graphs - Items.....</b>	<b>67</b>
<b>Weighted Tracking Graphs - Volumes .....</b>	<b>78</b>
<b>Appendix 2: Data Collection Form.....</b>	<b>85</b>

For enquiries on this report please contact David O’Dea.

---

# Section 1

## Introduction

- 1.1 This document has been prepared by McGregor Tan Research to report on Wave 79 of the quarterly KESAB Litter Monitor. Surveys for the current wave were conducted in South Australia during May 2020.

## **Background**

- 1.2 Regular monitoring of the litter stream is necessary in order to maintain a clear picture of its components, such as the various material types that contribute to the litter stream as well as the distribution of litter across different area types. Keep South Australia Beautiful (KESAB) had been monitoring the State's litter stream for many years, but the level of detail required during the South Australian Government's moratorium on changes to Container Deposit Legislation was considerably greater than previously recorded.
- 1.3 An expanded monitoring program commenced in February 1998, and McGregor Tan Research was commissioned at that time to undertake the actual count and to report regularly on the outcomes. This expanded program has been continued ever since and is planned to continue in future as well.
- 1.4 The count was completed quarterly, with the exception of August 2002, carried out in February, May, August and November of each year until 2015. Since then, the data has been counted twice a year, in May and November.
- 1.5 During each Wave of the survey, litter counts are undertaken at 151 sites across South Australia. In conjunction with the national litter count, a review of all South Australian sites showed that 11 of the sites surveyed were disproportionately represented in the data. These original sites were found to be unusual in nature, and were replaced with 11 revised sites.
- 1.6 The data collection form utilised for the count was jointly developed by McGregor Tan Research and KESAB. A copy of this form is provided in Appendix 2.
- 1.7 In January 2003, Container Deposit Legislation (CDL) was extended to cover most beverages under 1 litre, such as juice cartons, fruit boxes, flavoured milk cartons, etc. As a result, a new method of analysing the data had to be adopted so that the changes to the CDL, and the effect on the total litter stream could be evaluated.

- 1.8 Prior to the August 2004 Litter Count, the data collection form was re-evaluated and re-designed to take into account the changes to the CDL and also to incorporate new categories for litter items that were previously coded as 'other' or in an inappropriate category. The changes that were made to the data collection form include:
- Plastic bags were separated into 3 types of litter:
    - Supermarket type lightweight shopping bags
    - Heavier glossy, typically branded carry bags
    - Sacks, sheeting and other bags
  - Bottle and can tops were moved and separated from the Miscellaneous Category into both 'plastic bottle top' and 'metal bottle and can tops'.
  - The following four litter types were also added to the Plastic Category:
    - Bread bag tags
    - Lollipop sticks
    - Spoons/ cutlery
    - Drink pouches
  - The Metal Cans category name was changed to Metal.
  - Foil take away was moved from Miscellaneous to Metal.
  - Cigarette butts were separated from the Miscellaneous Category.
  - Two extra items were added to the Paper/paperboard Category:
    - Paper bags
    - Shopper dockets & related shopping paper
- 1.9 In previous waves, the data collection form separated each litter type into CDL and non-CDL categories. However, extended Container Deposit Legislation (CDL) has now meant that the litter categories alone (e.g. Flavoured milk, < 1 litre) can be used to establish whether or not beverage containers are covered under CDL or not.
- 1.10 In order to determine the effectiveness of the current CDL (as of January 2003,) and for comparative purposes, it was necessary to re-calculate the number of current CDL items from the waves prior to the extension. References to CDL items in Waves prior to Wave 17 (waves 1-16) therefore denote beverage containers that are currently covered by CDL – not the items that were covered by the legislation prior to this time.
- 1.11 During the Wave 29 Monitor estimates of the volumes for each litter item category were defined. The assignments of volume estimates to each litter item category were based on actual measurements of containers/ items, the condition that these items were most commonly found (which was based on the audits of at least three Waves), and the most common or average size of the items that were found within each

category.

- 1.12 The auditors were an important part of the volume formulation process, and they were able to record the number, size and type of different items within each category over a number of waves. Volumes ascribed to each item represented the average size for that category across all site types.
- 1.13 The final volume attributed to each litter item category furthermore took into account the fact that some items were often found crushed and weathered. For example, some drink cans and cartons are often crushed and/ or weathered when they are identified by the auditors and counted. The same volume measurements have been used for all subsequent Waves.
- 1.14 Two noteworthy events that have taken place since the beginning of this longitudinal study include:
- The deposit on drink containers was increased from 5 cents to 10 cents in September 2008.
  - The ban on thin plastic shopping bags came into effect in May 2009.
- 1.15 This document reports on Wave 79 of the longitudinal study. The litter count was conducted during May 2020. Section 2 of this report outlines the litter characteristics of the 151 sites, which include 11 revised sites (replacing 11 of the original 151). Appendix 1 contains charts tracking results back across all prior Monitors, and includes weighted results to facilitate meaningful comparison of results established at the 151 original sites with results derived from the 151 revised sites.

# **Section 2**

## **Wave 79**

### **Executive Summary**

The following Executive Summary covers the findings of the May 2020 KESAB Litter Monitor (Wave 79). Where possible, results have been tracked against those derived from any previous Waves which incorporated revised sites. All 151 sites were counted during the May 2020 count.

## **Items Counted**

A total of 6,212 litter items were counted across the 151 South Australian sites during Wave 79. This figure is lower than the previous monitor in November 2019 (8,205) and also below monitor conducted in May 2019 (6,918) at the same time last year.

Cigarette butts remained the main contributor (27%) to the litter count with 1,946 butts counted in Wave 79, down from Wave 78 (2,232) in May 2019 and also down from Wave 77 (2,209) in May 2019 conducted at the same time in the previous year.

The overall decrease in number of items counted was most strongly demonstrated by several litter types in Wave 79, including:

- GLASS - Other glass - 179 items, down from 478 items in Wave 78 (63% decrease)
- CIGARETTE BUTTS - Cigarette butts - 1946 items, down from 2232 items in Wave 78 (13% decrease)
- PAPER/PAPERBOARD - Other paper (including tissues) - 1,176 items, down from 1,426 items in Wave 78 (18% decrease)
- PLASTIC - Snack bags & confectionery wrappers - 121 items, down from 213 items in Wave 78 (43% decrease)
- MISCELLANEOUS - Clothing & materials - 89 items, down from 168 items in Wave 78 (47% decrease)
- PLASTIC - Plastic bottle tops - 192 items, down from 270 items in Wave 78 (29% decrease)
- METAL - Other foil - 122 items, down from 197 items in Wave 78 (38% decrease)
- METAL - Metal bottle tops and can pull rings - 203 items, down from 270 items in Wave 78 (25% decrease)
- PLASTIC - Lollipop sticks - 40 items, down from 88 items in Wave 78 (55% decrease)
- METAL - Metal pieces - 68 items, down from 110 items in Wave 78 (38% decrease)

Litter types that experienced larger increases in the number of items in Wave 79 included:

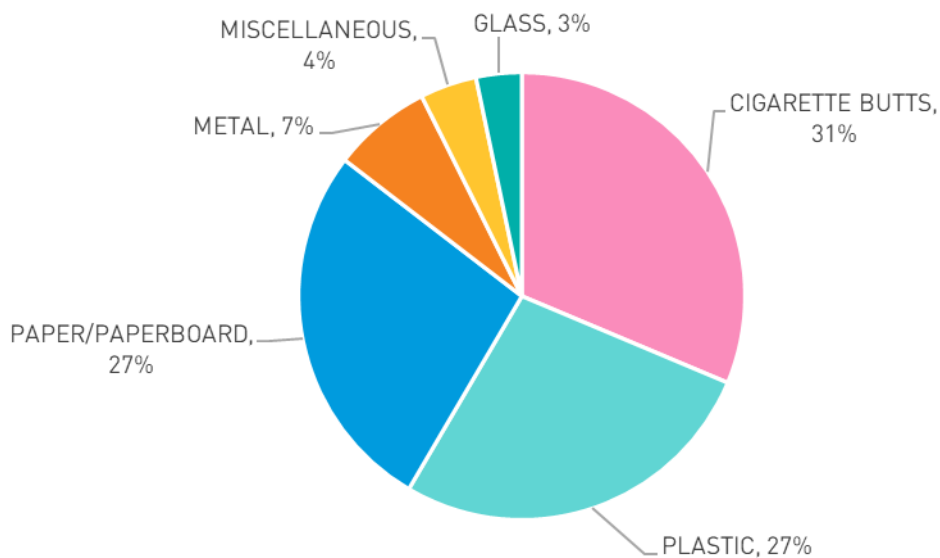
- PAPER/PAPERBOARD - Cups/take away containers – 96 items, up from 58 items in Wave 78 (66% increase)
- PLASTIC - White milk, all sizes – 23 items, up from 1 item in Wave 78 (2,200% increase)
- PAPER/PAPERBOARD - Cigarette packets – 55 items, up from 48 items in Wave 78 (15% increase)



Cigarette butts (31%, up from 27% in Wave 78) accounted for the largest proportion of all litter items counted in Wave 79. Other material types represented the following proportions of the litter items counted:

- Plastic items (27%, down from 28% in Wave 78)
- Paper/ paperboard (27%, up from 24% in Wave 78)
- Metal items (7%, down from 9% in Wave 78)
- Glass items (3%, down from 6% in Wave 78)
- Miscellaneous items (4%, down from 5% in Wave 78)

### Items as Proportions of Total by Material Type



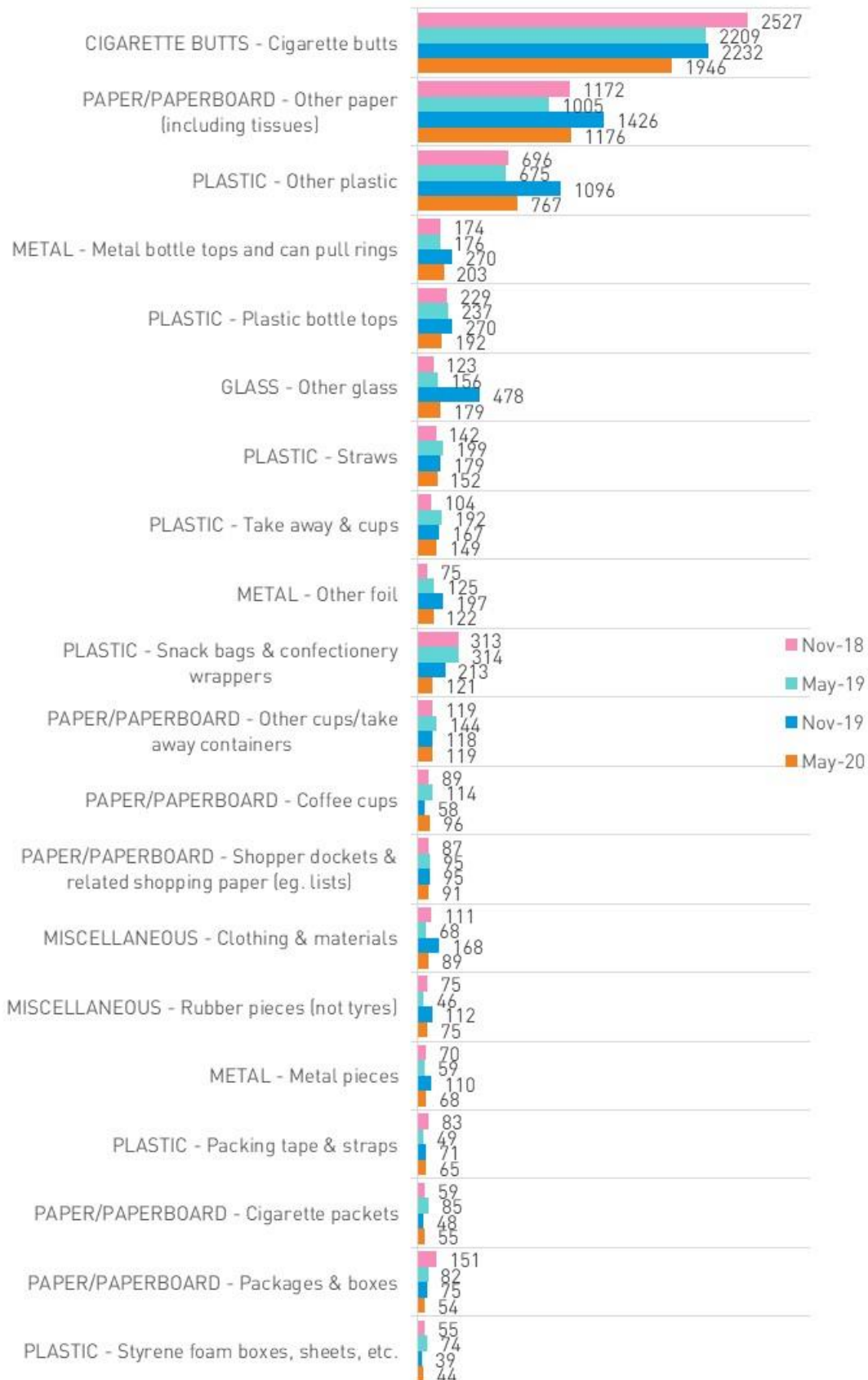
The top 20 ranking of litter type by number of items in Wave 79 was similar to the results for Wave 78, with new items entering the Top 20:

- PAPER/PAPERBOARD – Cigarette packs
- PLASTIC – Styrene foam boxes, sheets etc.

With new entrants, there are always those items that exit from the top 20 item list, in Wave 79 these items were:

- PLASTIC – Lollipop sticks
- METAL – Flavoured water / soft drink, carbonated, all sizes.

Top 20 categories - highest counts



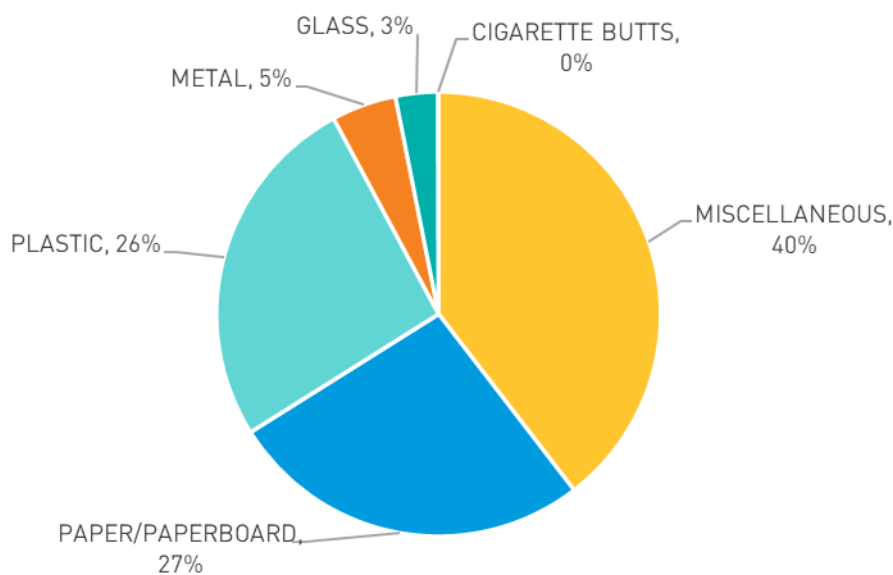
## Litter Volume

The total volume of litter recorded in May 2020 amounted to 0.637 cubic metres, lower than the estimated litter volume of November 2019 (0.744m<sup>3</sup>) and lower than of May 2018 (0.810m<sup>3</sup>) conducted at the same time in the previous year.

The largest proportion of litter volume for Wave 79 was contributed by miscellaneous items (40%, down from 49% in Wave 78). Other material types represented the following proportions of the total volume of litter items counted:

- Paper Items (27%, up from 23% in Wave 78)
- Plastic items (26%, up from 16% in Wave 78)
- Metal (5%, unchanged from 5% in Wave 78)
- Glass (3%, down from 4% in Wave 78)
- Cigarette butts (<1%, unchanged from Wave 78)

### Litter Volume as a Proportion of Total Volume



MISCELLANEOUS - Illegal dumping accounted for the highest volume of litter in Wave 79, with an estimated volume of 0.240m<sup>3</sup> (down from 0.336m<sup>3</sup> in Wave 78). Other items associated with large estimated litter volumes in Wave 79 included:

- PAPER/PAPERBOARD - Cups/take away containers - 0.087m<sup>3</sup> (up from 0.086m<sup>3</sup> in Wave 78)
- PLASTIC - White milk, all sizes - 0.049m<sup>3</sup> (up from 0.002m<sup>3</sup> in Wave 78)
- PAPER/PAPERBOARD - Coffee cups - 0.047m<sup>3</sup> (up from 0.028m<sup>3</sup> in Wave 78)

- PLASTIC - Take away & cups - 0.031m<sup>3</sup> (down from 0.035m<sup>3</sup> in Wave 78)
- PLASTIC - Containers, domestic type - 0.025m<sup>3</sup> (unchanged from 0.025m<sup>3</sup> in Wave 78)
- PLASTIC - Containers, industrial e.g. oil - 0.022 m<sup>3</sup> (unchanged from 0.022m<sup>3</sup> in Wave 78)
- PAPER/PAPERBOARD - Cigarette packets - 0.012m<sup>3</sup> (up from 0.010m<sup>3</sup> in Wave 78)
- PLASTIC - Flavoured milk, 1 litre+ - 0.011m<sup>3</sup> (up from 0.000m<sup>3</sup> in Wave 78)
- PAPER/PAPERBOARD - Newspapers & magazines - 0.009m<sup>3</sup> (up from 0.008m<sup>3</sup> in Wave 78)
- METAL - Foil take away - 0.007m<sup>3</sup> (down from 0.019m<sup>3</sup> in Wave 78)

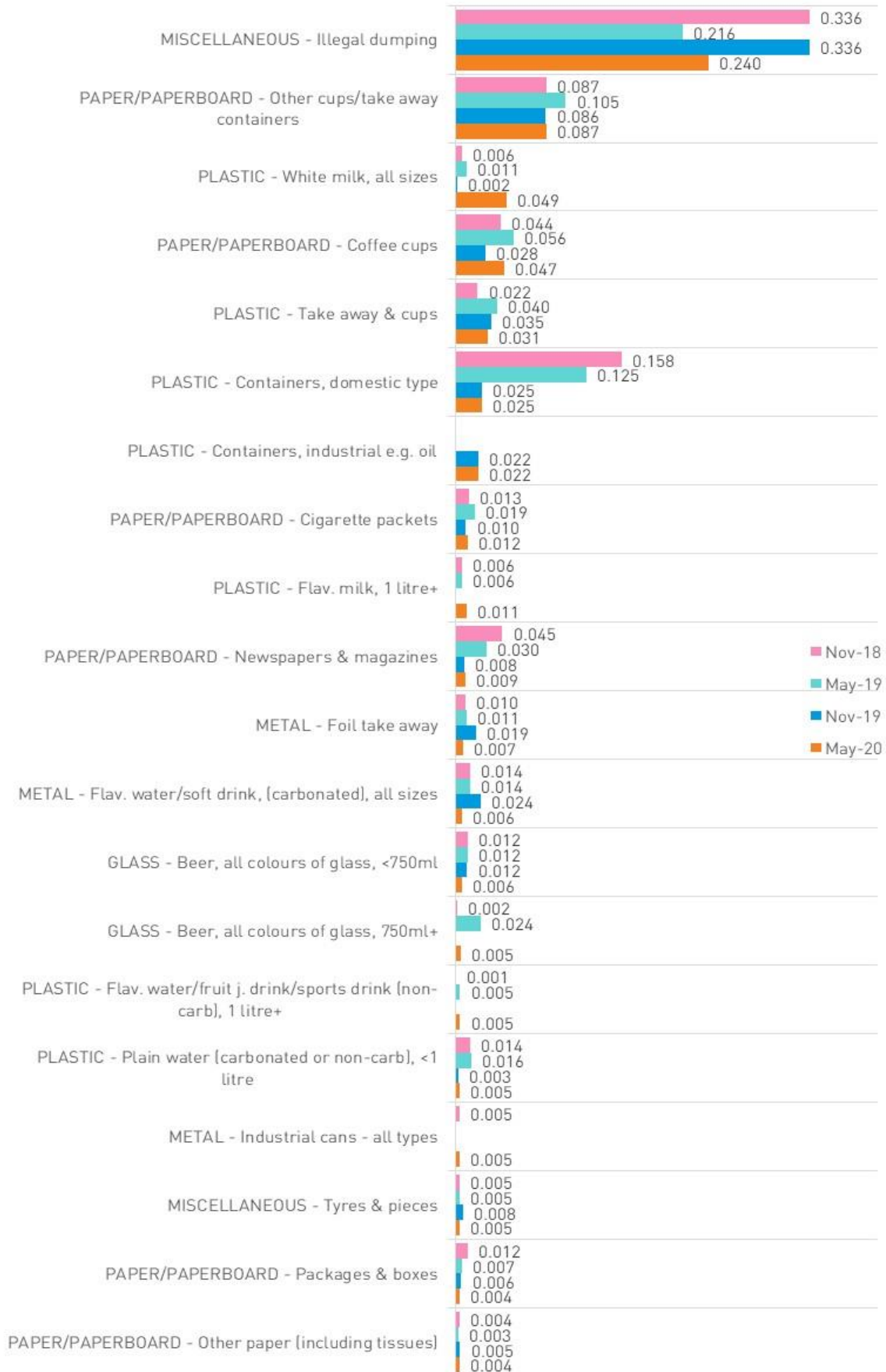
The top 20 ranking of litter items by volume in Wave 79 was similar to the results for Wave 78, with 7 new items entering the Top 20. These items were:

- PLASTIC – White milk, all sizes
- PLASTIC – Flavoured milk 1 litre +
- GLASS – Beer, all colours of glass, 750ml+
- PLASTIC – Flavoured water/fruit juice drink / sports drink (non-carbonated), 1 litre +
- PLASTIC – Plain water (carbonated or non-carbonated) <1 litre
- METAL – Industrial cans - all types
- PAPER/PAPERBOARD – Other paper (including tissues)

With new entrants, there are always those items that exit from the top 20 volume list, in Wave 79 the following items were removed:

- MISCELLANEOUS – Construction materials
- PAPER/PAPERBOARD – Cartons, flavoured milk < 1 litre
- Glass – Other glass
- METAL – Alcoholic sodas & spirit-based mixers
- PLASTIC – Plain water (carbonated or non-carbonated) 1 litre+
- PAPER/PAPERBOARD – Junk mail / free circulars
- METAL – Food cans (including pet food)

Top 20 categories - highest counts

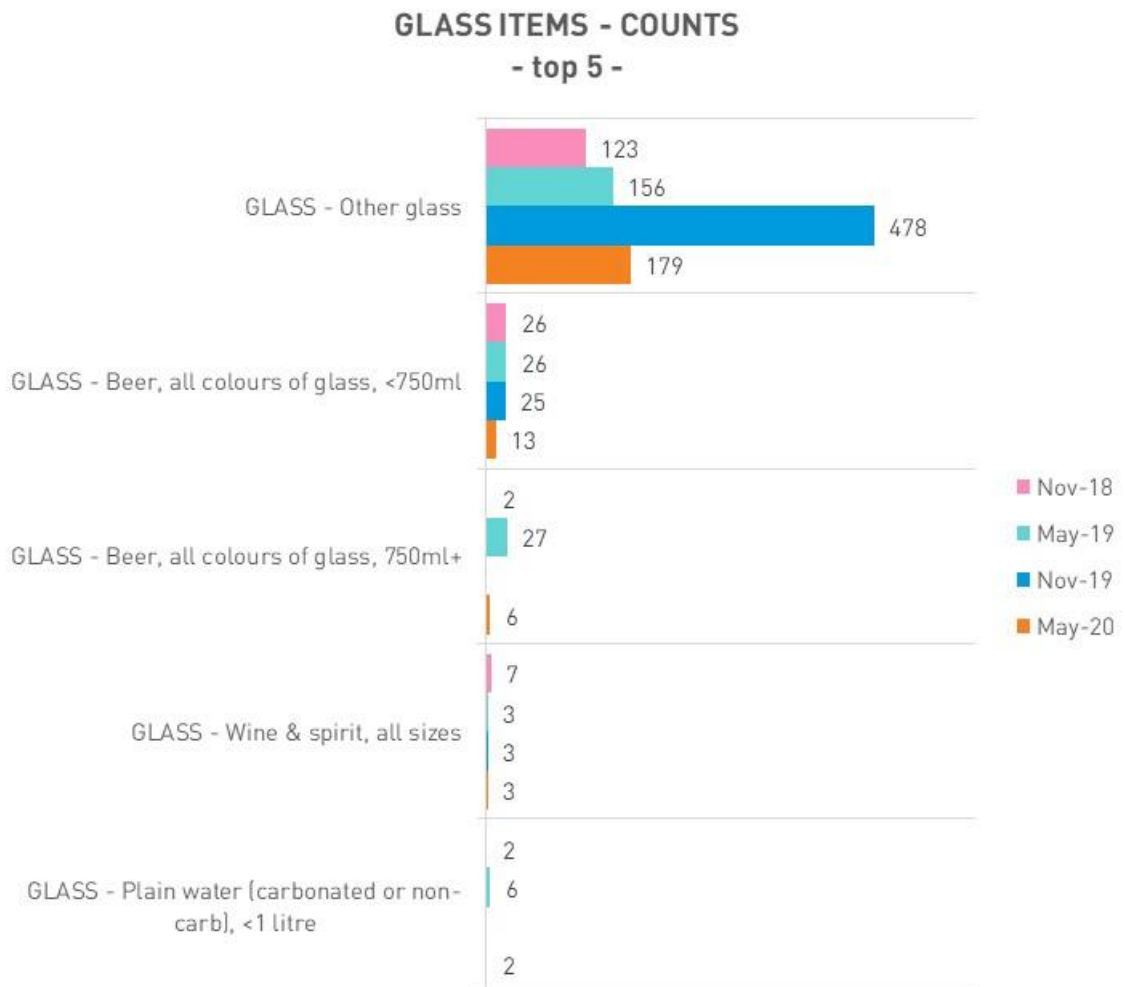


### 3.1 Glass

#### Items

A total of 205 glass litter items (up from 495 items in Wave 78) were counted during Wave 79. The most frequently recorded glass items included:

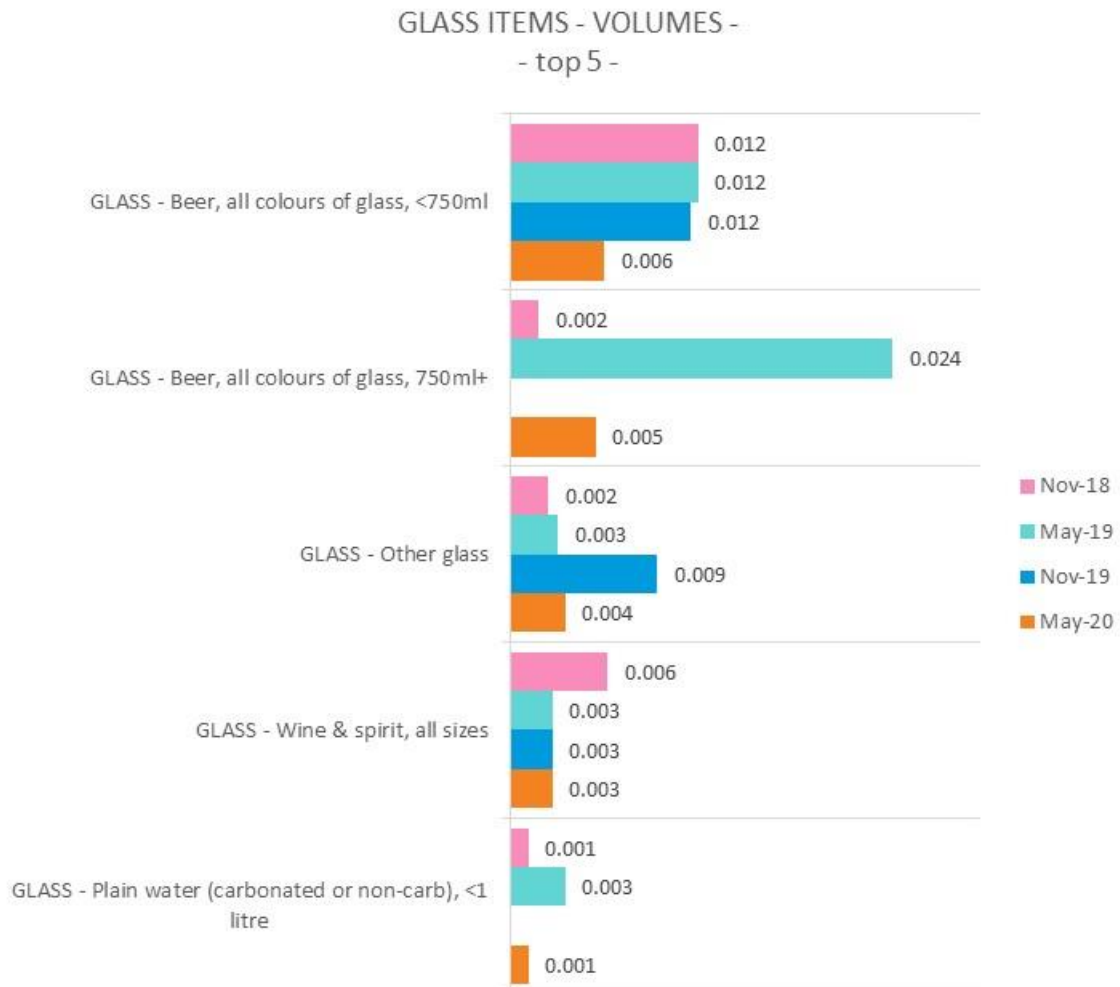
- Other glass (179 items, down from 478 items in Wave 78)
- Beer, all colours of glass <750ml (13 items, down from 25 items in Wave 78)
- Beer, all colours of glass 750ml + (6 items, up from nil items in Wave 78)
- Wine & spirits, all sizes (3 items, unchanged from 3 items in Wave 78)
- Plain water (carbonated or non-carbonated), < 1 litre (2 items, up from nil items in Wave 78)



**Volume**

Glass litter items accounted for 0.020m<sup>3</sup> (down from 0.032m<sup>3</sup> in Wave 78) in estimated litter volume during Wave 79. Glass items which contributed the largest volumes to the total included:

- Beer, all colours of glass <750ml (0.006m<sup>3</sup>, down from 0.012m<sup>3</sup> in Wave 78)
- Beer, all colours of glass 750ml + (0.005m<sup>3</sup>, up from nil in Wave 78)
- Other glass (0.004m<sup>3</sup>, down from 0.009m<sup>3</sup> in Wave 78)
- Wine & spirits, all sizes (0.003m<sup>3</sup>, unchanged from 0.003m<sup>3</sup> in Wave 78)
- Plain water (carbonated or non-carbonated), < 1 litre (0.001m<sup>3</sup>, up from nil in Wave 78)

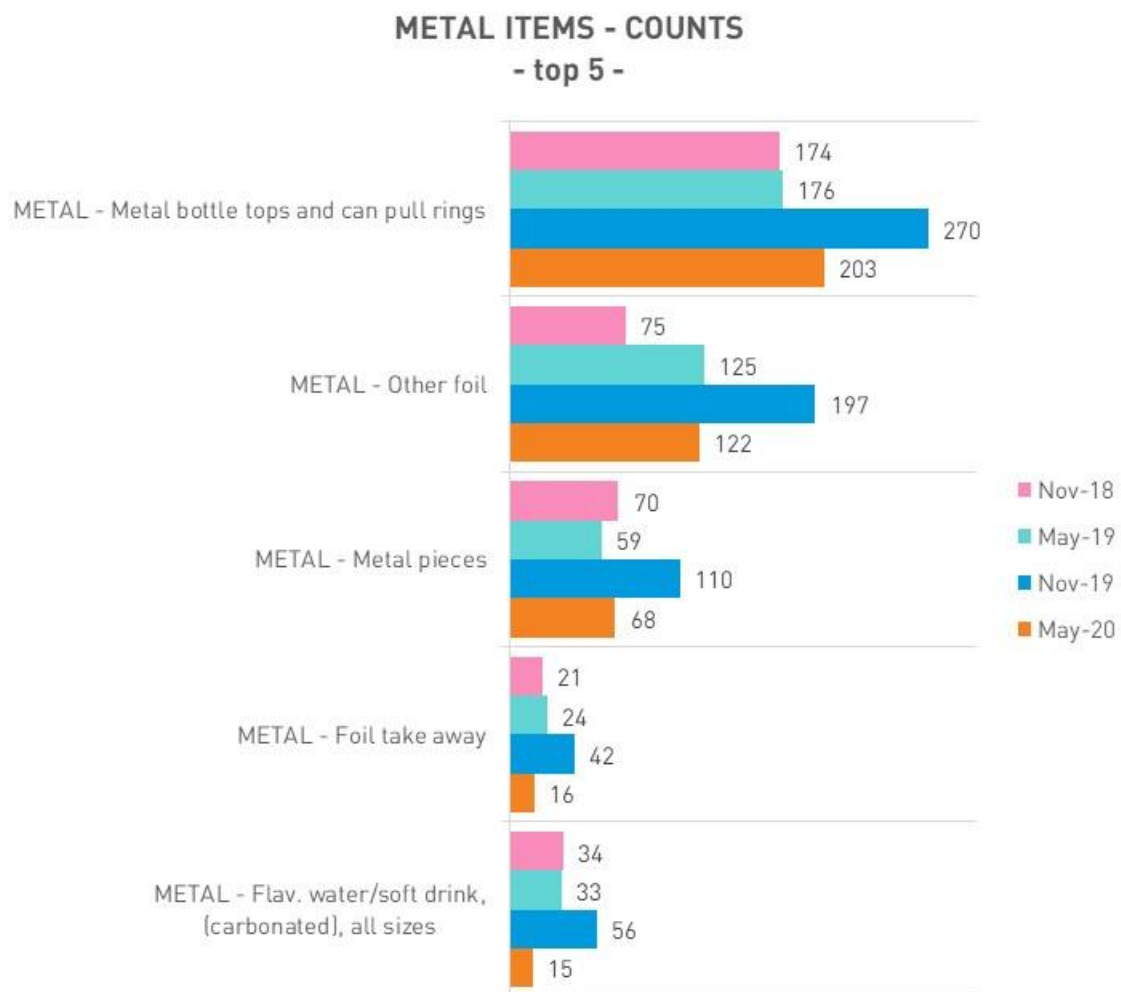


## 3.2 Metal

### Items

A total of 446 metal litter items (down from 709 items in Wave 78) were counted during Wave 79. The most frequently counted metal litter items included:

- Metal bottle tops and can pull rings (203 items, down from 270 items in Wave 78)
- Other foil (122 items, down from 197 items in Wave 78)
- Metal pieces (68 items, down from 110 items in Wave 78)
- Foil take away (16 items, down from 42 items in Wave 78)
- Flavoured water/soft drink (carbonated), all sizes (15 items, down from 56 items in Wave 78)



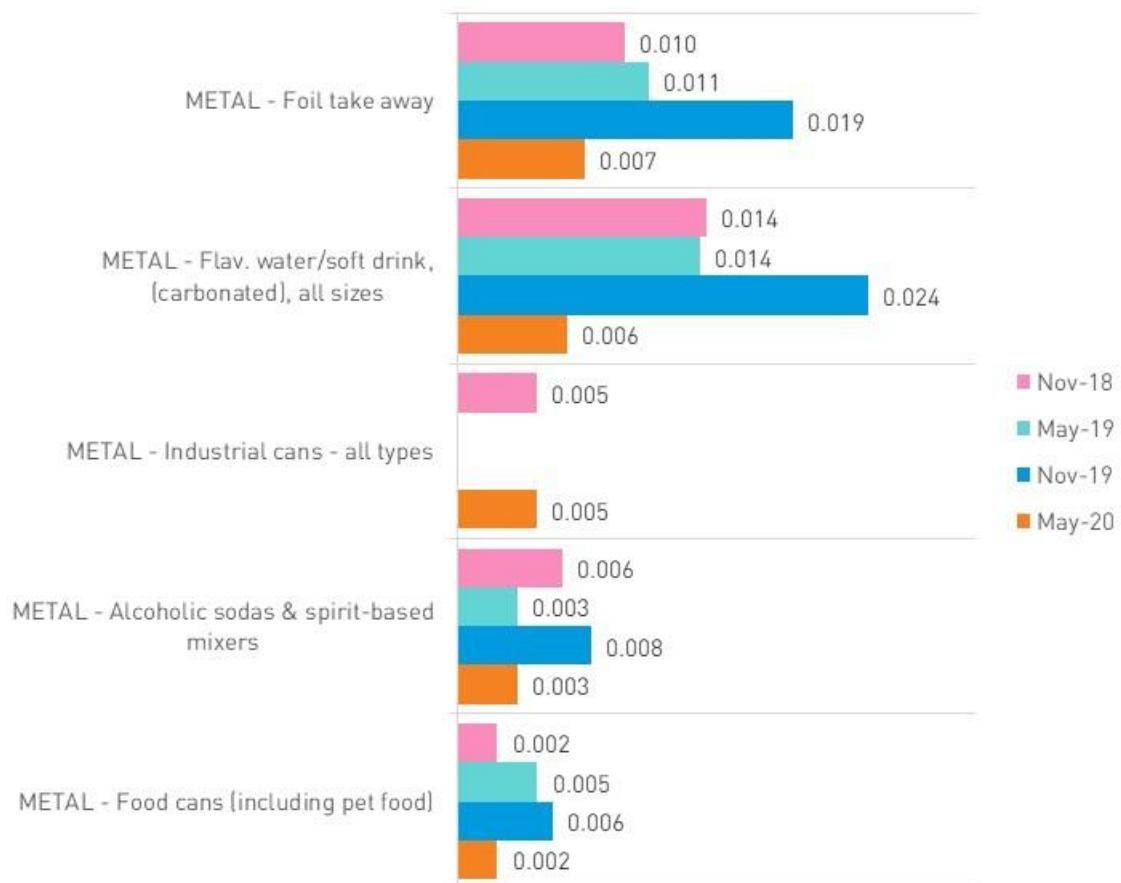


**Volume**

Metal litter items accounted for a total estimated litter volume of 0.030m<sup>3</sup> (down from 0.061m<sup>3</sup> in Wave 77). The metal items associated with the largest estimated volumes of litter during Wave 78 included:

- Foil take away (0.007m<sup>3</sup>, down from 0.019m<sup>3</sup> in Wave 78)
- Flavoured water/soft drink (carbonated), all sizes (0.006m<sup>3</sup>, down from 0.024m<sup>3</sup> in Wave 78)
- Metal industrial cans – all types (0.005m<sup>3</sup>, up from nil in Wave 78)
- Alcoholic sodas & spirit-based mixers (0.003m<sup>3</sup>, down from 0.008m<sup>3</sup> in Wave 78)
- Food cans (including pet food) (0.002m<sup>3</sup>, down from 0.006m<sup>3</sup> in Wave 78)

**METAL ITEMS - VOLUMES**  
**- top 5 -**

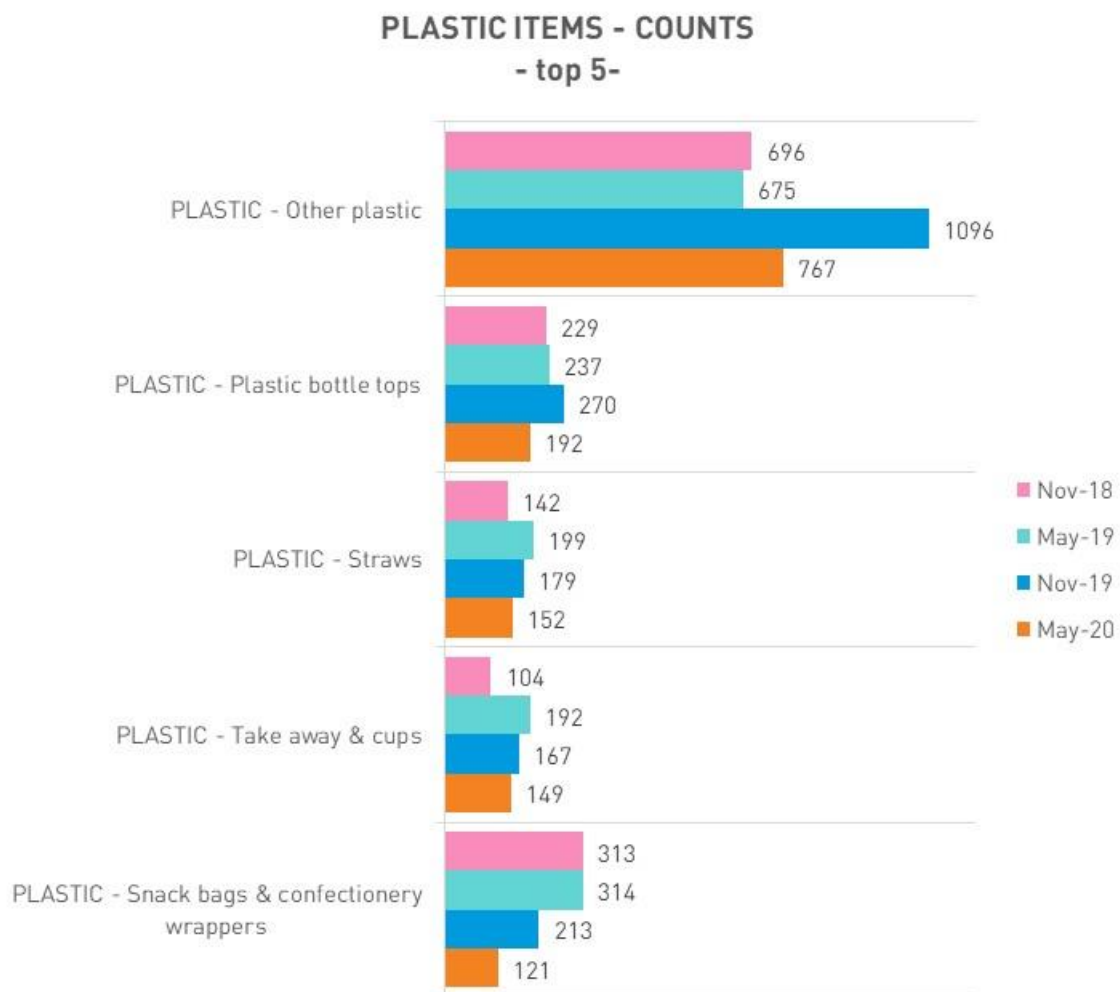


### 3.3 Plastic

#### Items

A total of 1,685 plastic litter items (up from 2,297 items in Wave 78) were counted during Wave 79. The most frequently counted plastic litter items included:

- Other plastic (767 items, down from 1,096 items in Wave 78)
- Plastic bottle tops (192 items, down from 270 items in Wave 78)
- Straws (152 items, down from 179 items in Wave 78)
- Take away & cups (149 items, down from 167 items in Wave 78)
- Snack bags & confectionery wrappers (121 items, down from 213 items in Wave 78)

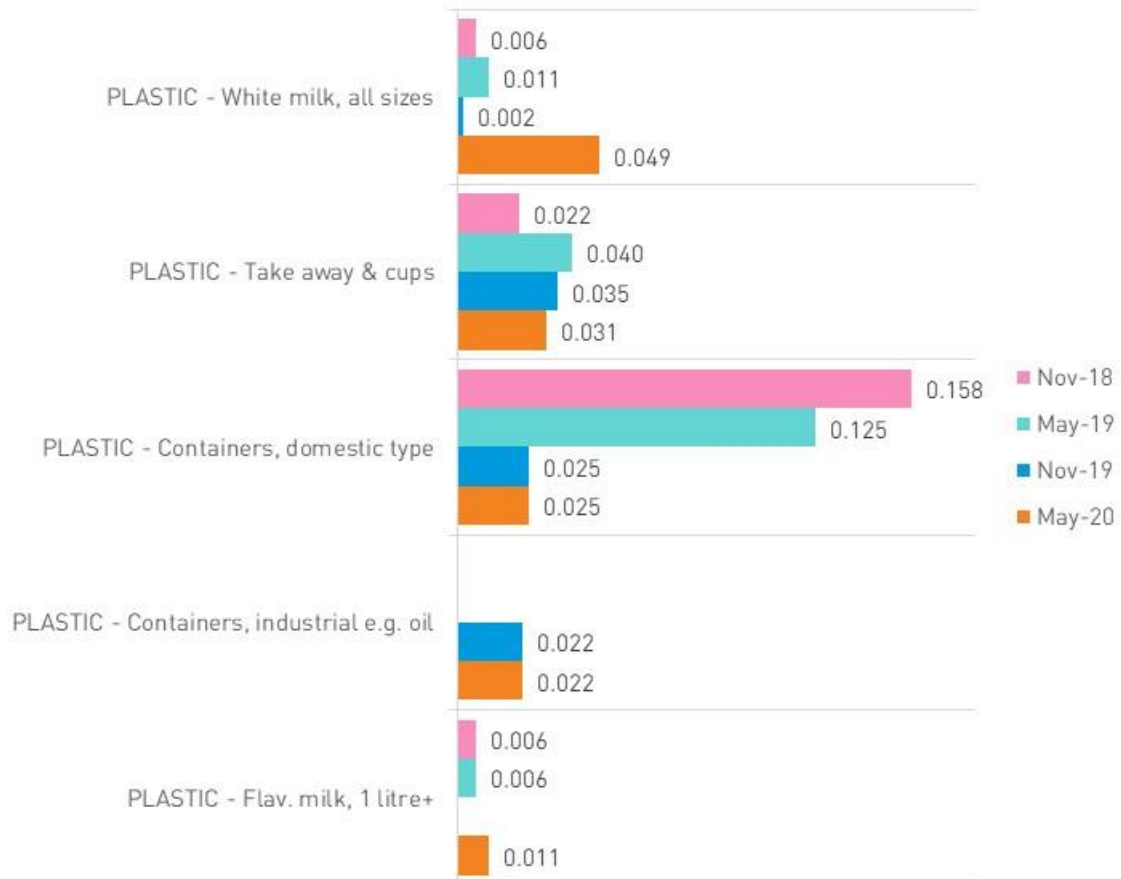


**Volume**

Plastic items were associated with an estimated litter volume of 0.166m<sup>3</sup> (up from 0.121m<sup>3</sup> in Wave 78). Items which represented the largest volumes within the Wave 79 litter count included:

- Plain milk, all sizes (0.049m<sup>3</sup>, up from 0.002m<sup>3</sup> in Wave 78)
- Take away & cups (0.031m<sup>3</sup>, down from 0.035m<sup>3</sup> in Wave 78)
- Containers, domestic type (0.025m<sup>3</sup>, unchanged from 0.025m<sup>3</sup> in Wave 78)
- Containers, industrial type (0.022m<sup>3</sup>, unchanged from 0.022 m<sup>3</sup> in Wave 78)
- Flavoured milk, 1 litre + (0.011m<sup>3</sup>, up from nil in Wave 78)

**PLASTIC ITEMS - VOLUMES**  
**- top 5 -**



### 3.4 Paper/ Paperboard

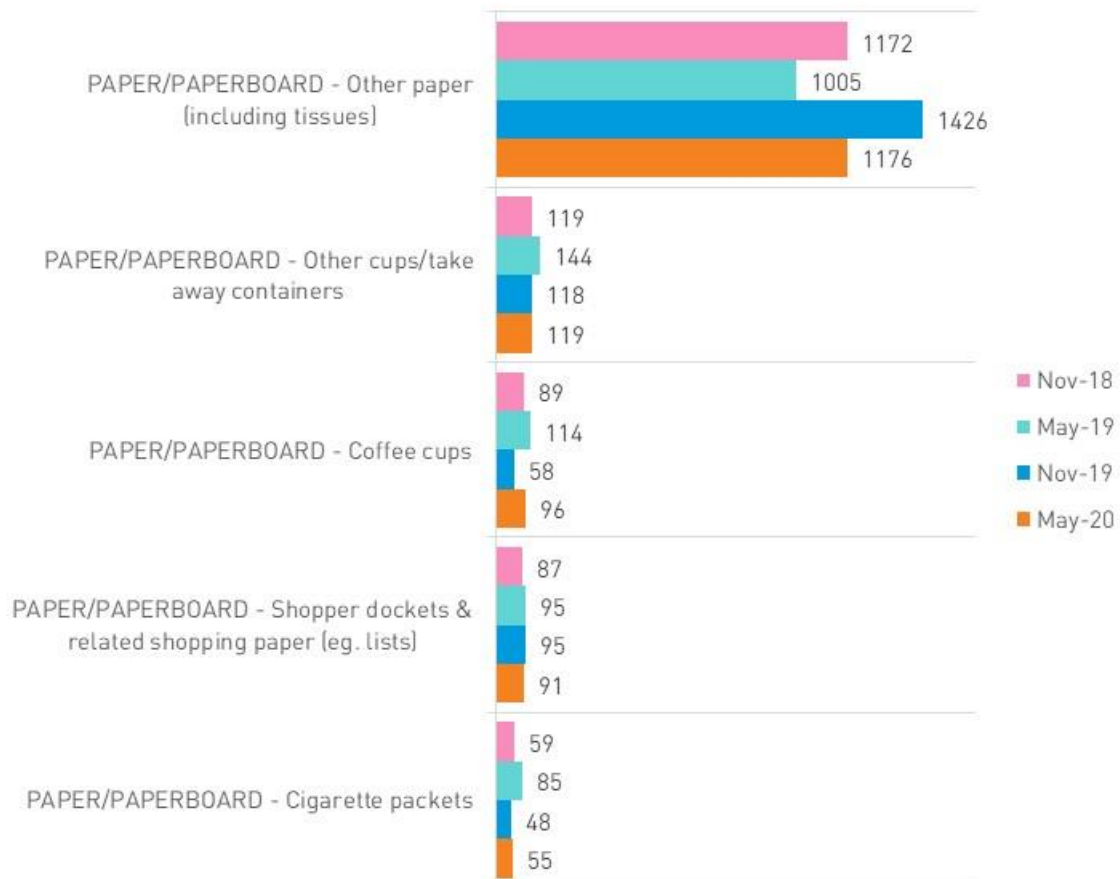
#### Items

A total of 1,675 paper/paperboard litter items (down from 1,999 items in Wave 78) were recorded during Wave 79.

The most frequently identified items within this material type were:

- Other paper – including tissues (1,176 items, up from 1,426 items in Wave 78)
- Cups/ take away containers (119 items, up from 118 items in Wave 78)
- Coffee cups (96 items, up from 58 items in Wave 78)
- Shopper docket & related shopping paper (e.g. lists) (91 items, down from 95 items in Wave 78)
- Cigarette packets (55 items, up from 48 items in Wave 78)

**PAPER/ PAPERBOARD ITEMS - COUNTS**  
- top 5 -



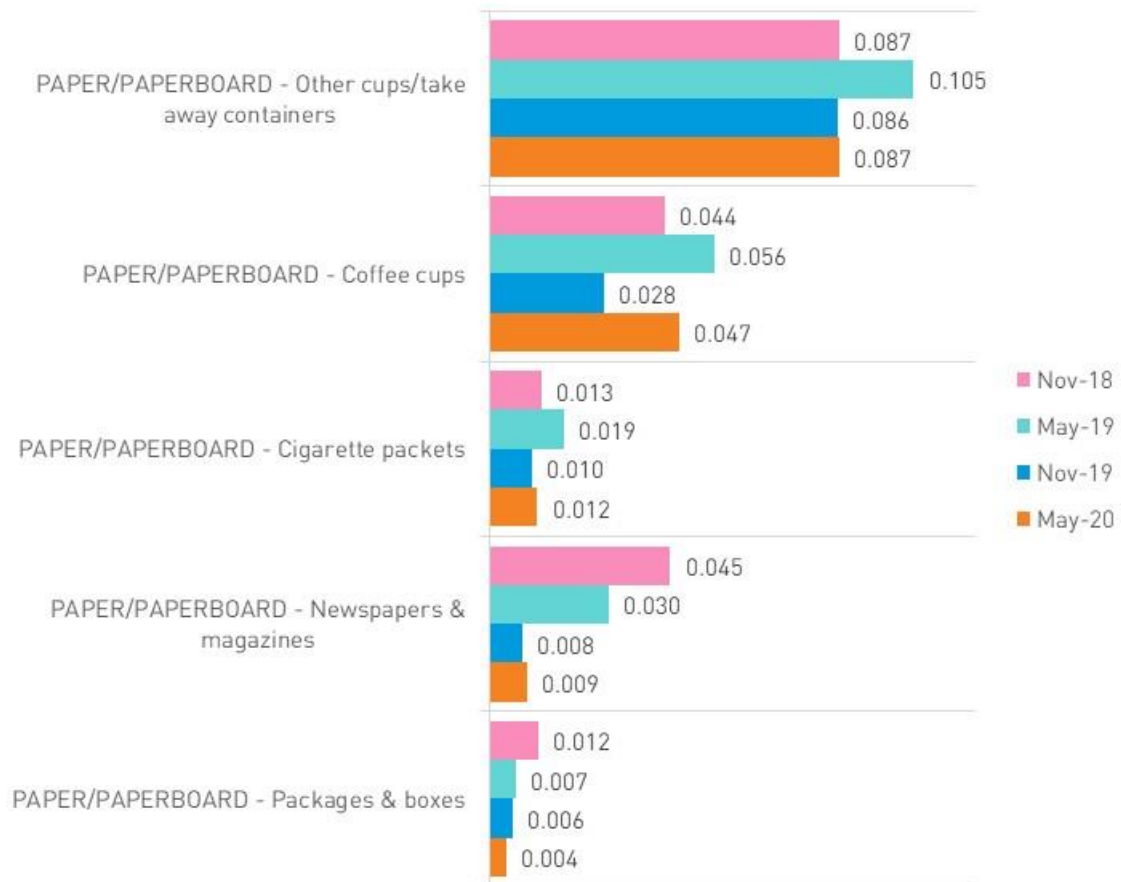
**Volume**

Paper/ Paperboard items accounted for 0.169m<sup>3</sup> in estimated litter volume (up from 0.168m<sup>3</sup> in Wave 78) in May 2020.

Paper/ paperboard items which contributed the largest volumes to the total included:

- Cups/take away containers (0.087m<sup>3</sup>, up from 0.086m<sup>3</sup> in Wave 78)
- Coffee cups (0.047m<sup>3</sup>, up from 0.028m<sup>3</sup> in Wave 78)
- Cigarette packets (0.012m<sup>3</sup>, up from 0.010m<sup>3</sup> in Wave 78)
- Newspapers & magazines (0.009m<sup>3</sup>, up from 0.008m<sup>3</sup> in Wave 78)
- Packages & boxes (0.004m<sup>3</sup>, down from 0.006m<sup>3</sup> in Wave 78)

**PAPER/ PAPERBOARD ITEMS - VOLUMES**  
**- top 5 -**



### 3.5 Miscellaneous

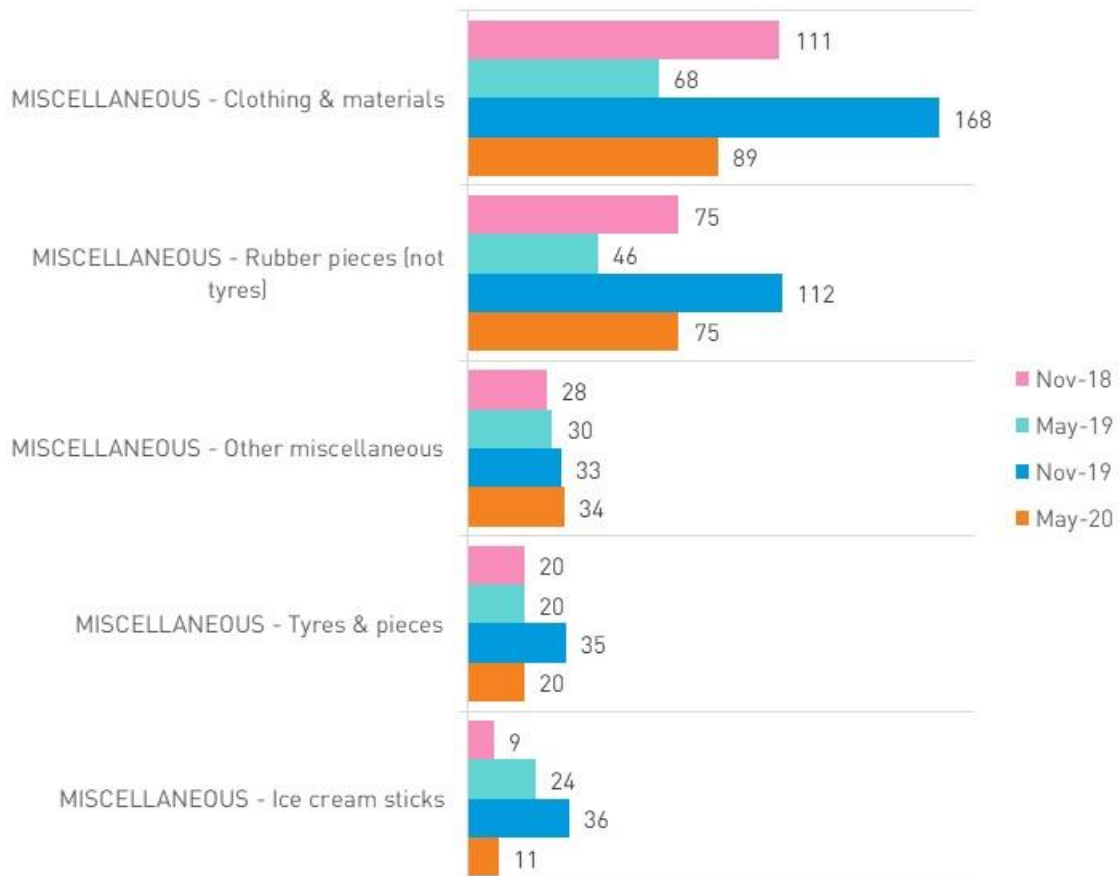
#### Items

A total of 255 miscellaneous items (down from 444 items in Wave 78) were counted during Wave 79.

The most frequently recorded items included:

- Clothing & materials (89 items, down from 168 items in Wave 78)
- Rubber pieces – not tyres (79 items, down from 112 items in Wave 78)  
Rubber pieces in this category include vehicle rubber mouldings, hose pipes and tubing, bicycle handlebar grips and casings, pram mouldings and strips.
- Other miscellaneous (34 items, up from 33 items in Wave 78)
- Tyres & pieces (20 items, down from 35 items in Wave 78)
- Ice cream sticks (11 items, down from 36 items in Wave 78)

**MISCELLANEOUS ITEMS - COUNTS**  
- top 5 -



**Volume**

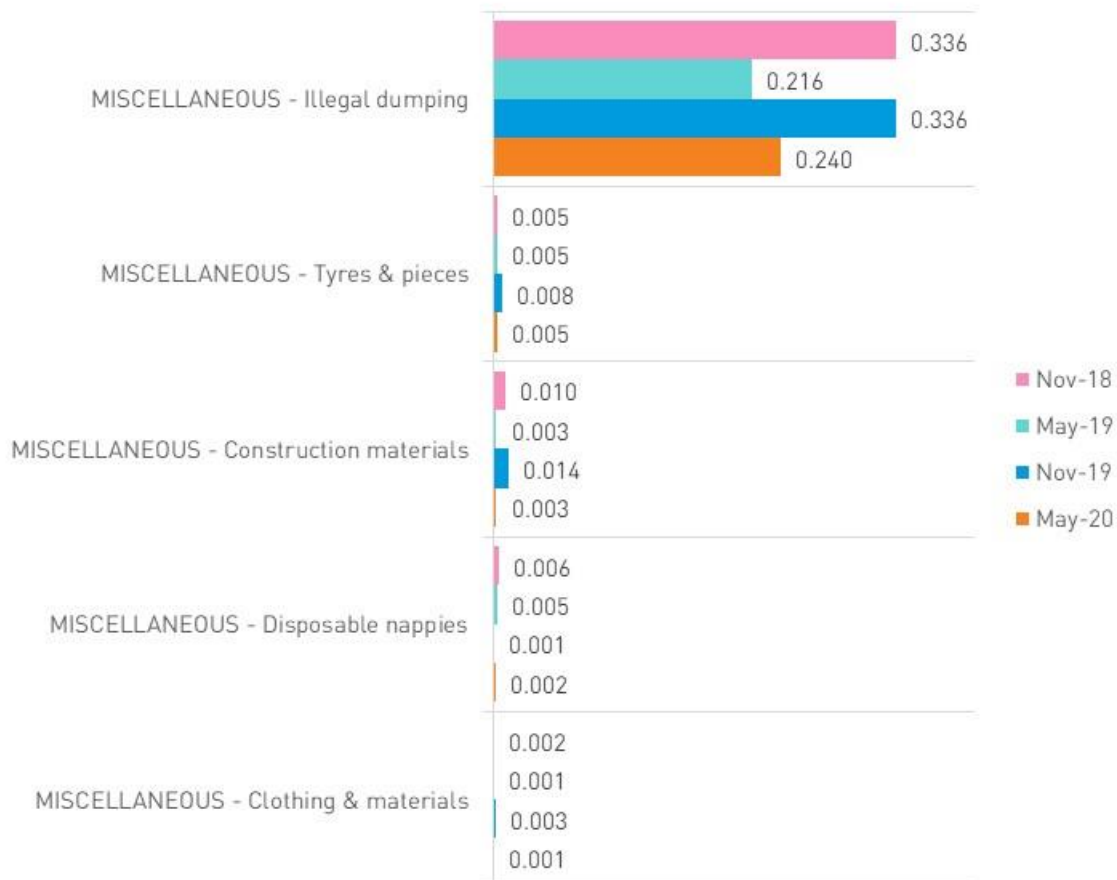
Miscellaneous litter was associated with an estimated litter volume of 0.252m<sup>3</sup> down from 0.360m<sup>3</sup> in Wave 78) during Wave 79.

Illegal dumping remained the major contributor to the total volume of miscellaneous items, with an estimated total volume of 0.240m<sup>3</sup> (down from 0.336m<sup>3</sup> in Wave 78).

Other miscellaneous items which contributed to the litter stream volume included:

- Tyres & pieces (0.005m<sup>3</sup>, down from 0.008m<sup>3</sup> in Wave 78)
- Construction materials (0.003m<sup>3</sup>, down from 0.014m<sup>3</sup> in Wave 78)
- Disposable nappies (0.002m<sup>3</sup>, up from 0.001m<sup>3</sup> in Wave 78)
- Clothing and materials (0.001m<sup>3</sup>, down from 0.003m<sup>3</sup> in Wave 78)

**MISCELLANEOUS ITEMS - VOLUMES**  
**- top 5 -**



### 3.6 Cigarette Butts

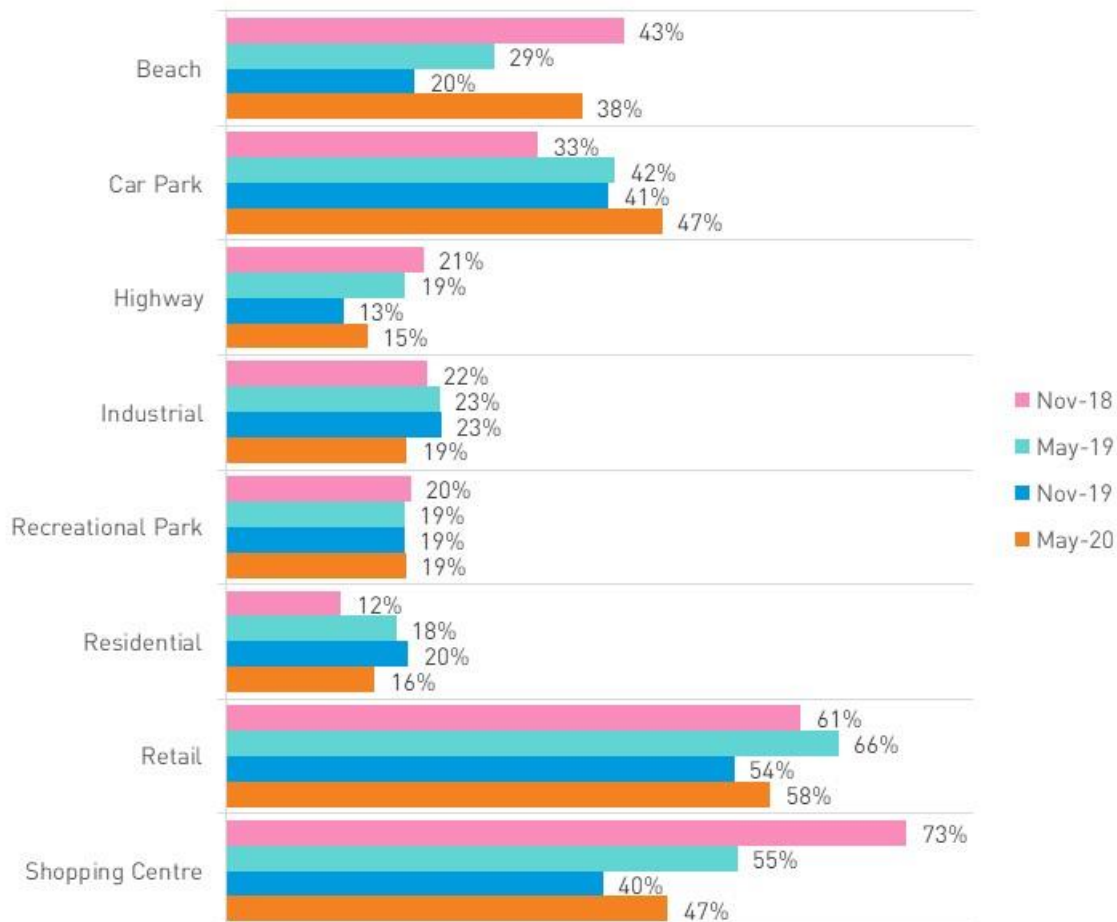
#### Items

The total number of cigarette butts recorded during Wave 79 was 1,946, down from 2,232 in Wave 78 and also 2,209 in Wave 77 at the same time the previous year.

The proportion of cigarette butts against the total number of litter items was highest at Retail sites (58%, up from 54% in Wave 78). Cigarette butts also contributed the following proportions of total litter at the following site types:

- Car parks (47%, up from 41% in Wave 78)
- Shopping centres (47%, up from 40% in Wave 78)
- Industrial sites (19%, down from 23% in Wave 78)
- Beaches (38%, up from 20% in Wave 78)
- Residential sites (16%, down from 20% in Wave 78)
- Recreational parks (19%, unchanged from 19% in Wave 78)
- Highway sites (15%, up from 13% in Wave 78)

**Cigarette butts as a proportion of total litter at each site type**





## **Volume**

Despite cigarette butts being the most numerous type of litter item, they accounted for less than 1% of the total volume of litter recorded during the current Wave.

### 3.7 Dispersion of Litter by Site Type

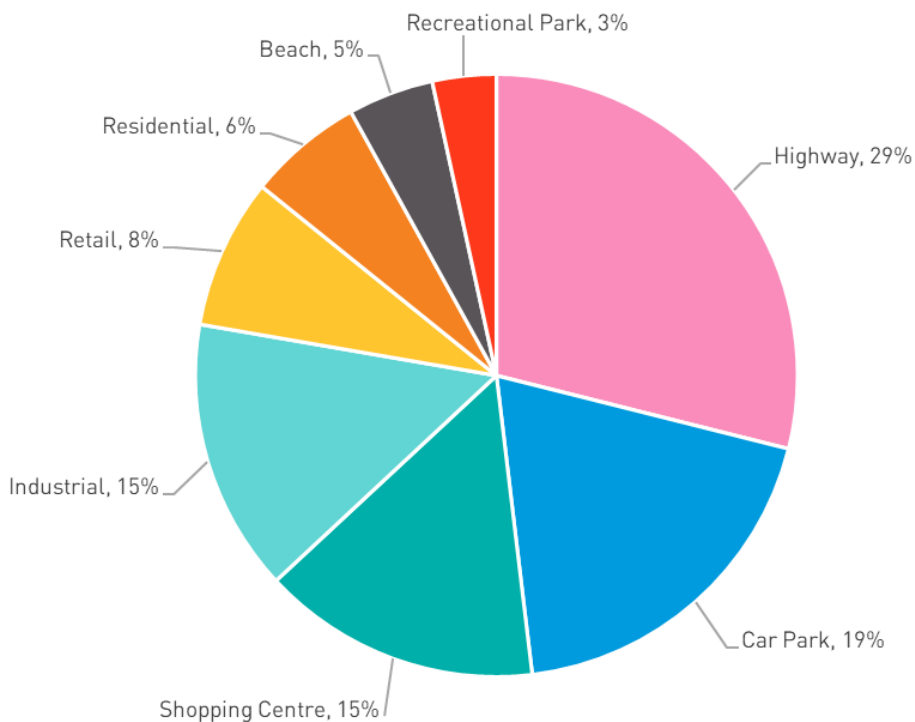
#### Items

Highways remained the most significant contributor to the total number of litter items counted in May 2020 with 29% (down from 34% in Wave 78) of the total litter items counted at highway locations.

Other sites contributed the following proportions of the total number of litter items counted during Wave 79:

- Car Park (19%, down from 23% in Wave 78)
- Industrial (15%, up from 12% in Wave 78)
- Shopping Centre (15%, up from 9% in Wave 78)
- Retail (8%, unchanged from 8% in from Wave 78)
- Residential (6%, unchanged from 6% in Wave 78)
- Beach (5%, up from 3% from Wave 78)
- Recreational Park (3%, down from 4% in Wave 78)

**Proportion of total litter items counted within site type**



A comparison of the proportions of litter items found at each site type revealed that highway locations and shopping centres contributed large amounts to the total number of litter items in the May Monitor, based on the proportion of the number of these sites as outlined below:

- Highway sites represented only 18% of the total number of sites surveyed and contributed 27% (down from 34% in Wave 78) of the total litter items counted in Wave 79.
- Shopping centres - incorporated 9% of the sites surveyed and contributed 15% (up from 9% in Wave 78) of the litter items counted in Wave 79.

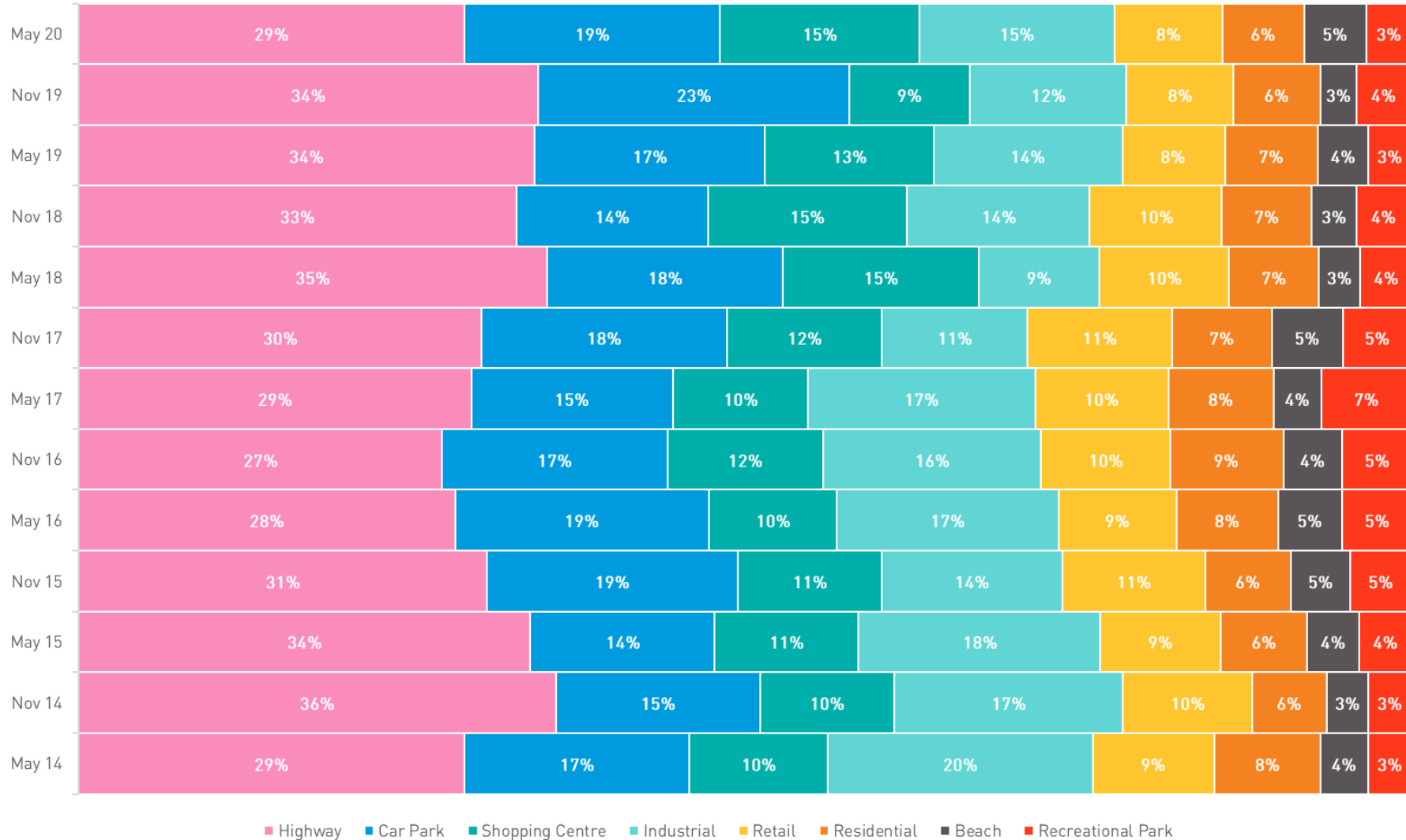
Conversely, residential locations, beaches and recreational parks contributed smaller proportions of litter items to the total litter count than anticipated based upon the proportion of these sites within the overall sample of locations as detailed below:

- Residential areas incorporated 17% of the sites surveyed but contributed only 6% (unchanged from 6% in Wave 78) of the litter items counted in Wave 79.
- Beaches represented 11% of the sites surveyed but contributed only 5% (up from 3% in Wave 78) of the litter counted in Wave 79.
- Recreational Parks represented 9% of sites surveyed and contributed 3% (down from 4% in Wave 78) of the litter counted in Wave 79.

The remaining sites contributed around the expected proportions of litter based on the proportion of these sites among the overall number of sites counted during May 2020, the proportions were:

- Car parks incorporated 15% of the sites surveyed and contributed 19% (down from 23% in Wave 78) of the litter items counted in Wave 79.
- Industrial sites incorporated 11% of the sites surveyed and contributed 15% (up from 12% in Wave 78) of the total litter items counted in Wave 79.
- Retail areas - incorporated 10% of the sites surveyed and contributed 8% (unchanged from 8% in Wave 78) of the litter items counted in Wave 79.

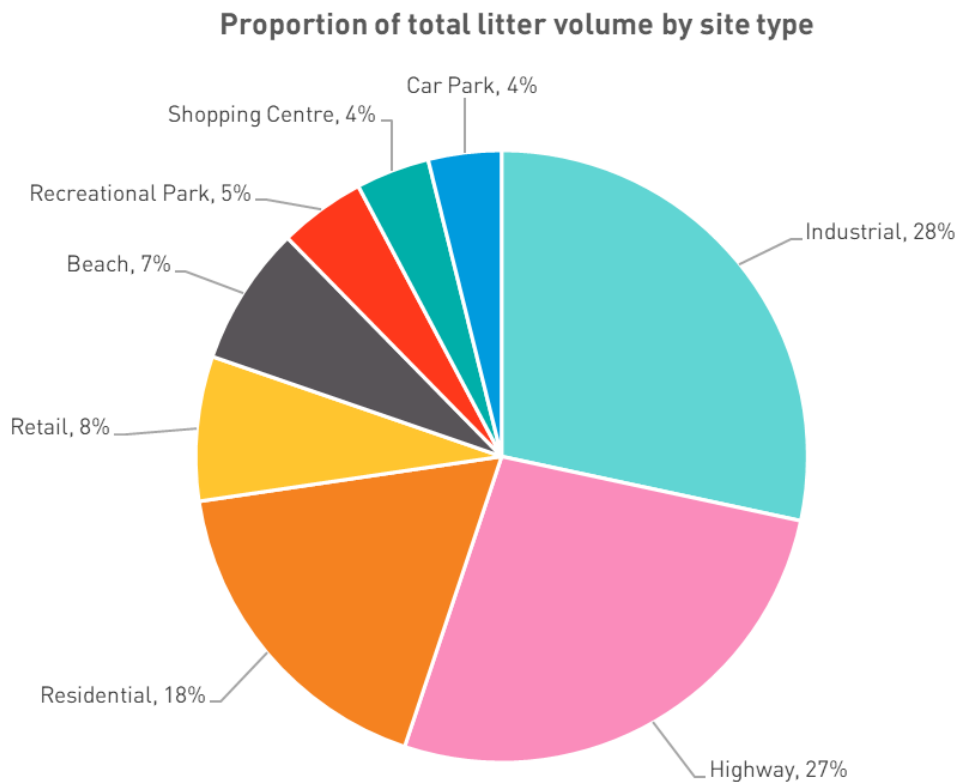
**PROPORTION OF TOTAL LITTER ITEMS COUNTED WITHIN SITE TYPE**  
- tracking -



**Volume**

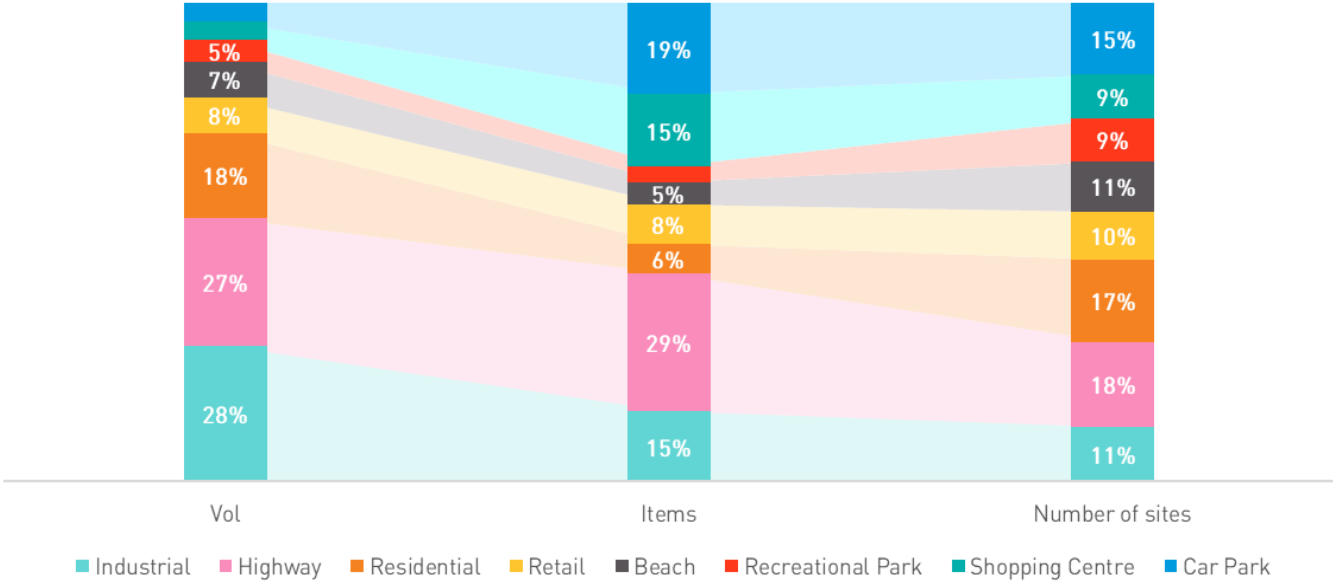
Just over quarter (28%, up from 20% in Wave 78) of the total volume of litter estimated during Wave 79 was associated with litter items at industrial sites, and just over quarter (27%, down from 51% in Wave 78) was associated with litter items at highway locations.

Lower volumes of litter were contributed to the total litter volume by residential sites (18%, up from 14% in Wave 78), retail sites (8%, up from 5% in Wave 78), beaches (7%, up from 0.5% in Wave 78), recreational park sites (5%, up from 1% in Wave 78), car park sites (4%, down from 7% in Wave 78) and shopping centres (4%, up from 2% in Wave 78) during Wave 79.



A comparison of the litter volume, number of litter items and proportion of sites represented within location types shows that highway locations and industrial sites contributed a larger number and volume of litter items than would be expected given their representations within the sample.

NUMBER AND VOLUME OF LITTER BY SITE TYPE AS PROPORTIONS OF TOTALS



### **3.8 CDL Beverage Containers**

---

The majority (98%, unchanged from 98% in Wave 78) of litter items counted in May 2020 were non-beverage items.

The total number of CDL beverage containers counted was 79 items, down from 172 items in Wave 78.

CDL beverage containers accounted for 71% (down from 96% in Wave 78) of all beverage containers counted during Wave 79.

## Data Summary - Items



KESAB - Litter Strategy Monitoring Wave 79 - May 2020			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
<b>CIGARETTE BUTTS</b>		NBEV	109	556	271	176	41	61	292	440	1420	526	1946
<b>GLASS</b>	Alcoholic sodas/spirit-based mixers, all sizes	CDL	0	0	0	0	0	0	0	0	0	0	0
	Beer, all colours of glass, <750ml	CDL	0	1	10	2	0	0	0	0	5	8	13
	Beer, all colours of glass, 750ml+	CDL	0	0	6	0	0	0	0	0	1	5	6
	Cider/fruit based etc.	CDL	0	0	1	0	0	0	0	0	1	0	1
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0	0	0	0	0	0	0	0	0	0	0
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0	0	0	0	0	0	0	0	0	0	0
	Flav. water/soft drink (carbonated), <1 litre	CDL	0	0	0	0	0	0	0	0	0	0	0
	Flav. water/soft drink (carbonated), 1 litre+	CDL	0	0	0	0	0	0	0	0	0	0	0
	Fruit juice, <1 litre	CDL	0	1	0	0	0	0	0	0	1	0	1
	Fruit juice, 1 litre+	BEV	0	0	0	0	0	0	0	0	0	0	0
	Other glass	NBEV	3	46	78	29	0	7	12	4	144	35	179
	Plain water (carbonated or non-carb), <1 litre	CDL	0	0	0	1	0	1	0	0	2	0	2
	Plain water (carbonated or non-carb), 1 litre+	CDL	0	0	0	0	0	0	0	0	0	0	0
	Wine & spirit, all sizes	BEV	0	1	2	0	0	0	0	0	2	1	3
Wine cooler, all sizes	CDL	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTAL</b>			<b>3</b>	<b>49</b>	<b>97</b>	<b>32</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>4</b>	<b>156</b>	<b>49</b>	<b>205</b>
<b>METAL</b>	Aerosols - pressure packs	NBEV	0	0	2	1	0	0	0	0	3	0	3
	Alcoholic sodas & spirit-based mixers	CDL	0	1	4	3	0	0	0	0	7	1	8
	Beer, aluminium, all types, all sizes	CDL	0	0	2	2	0	0	0	0	2	2	4
	Cider/fruit based etc.	CDL	0	0	0	0	0	0	0	0	0	0	0
	Flav. water/soft drink, (carbonated), all sizes	CDL	0	0	15	0	0	0	0	0	10	5	15
	Flav. water/soft drink, (non-carb), all sizes	CDL	0	0	0	1	0	0	0	0	1	0	1
	Foil take away	NBEV	0	0	9	3	1	2	0	1	6	10	16
	Food cans (including pet food)	NBEV	0	0	3	2	0	0	0	0	5	0	5
	Industrial cans - all types	NBEV	0	0	0	0	0	0	0	1	1	0	1
	Metal bottle tops and can pull rings	NBEV	7	31	105	24	9	3	7	17	178	25	203
	Metal pieces	NBEV	1	6	40	7	0	5	7	2	53	15	68
	Other foil	NBEV	5	23	42	12	20	8	4	8	93	29	122
	<b>TOTAL</b>			<b>13</b>	<b>61</b>	<b>222</b>	<b>55</b>	<b>30</b>	<b>18</b>	<b>18</b>	<b>29</b>	<b>359</b>	<b>87</b>

KESAB - Litter Strategy Monitoring Wave 79 - May 2020			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
MISCELLANEOUS	Clothing & materials	NBEV	0	11	42	18	3	7	4	4	55	34	89
	Condoms	NBEV	1	2	0	0	0	0	0	0	1	2	3
	Construction materials	NBEV	2	0	1	3	0	2	1	0	3	6	9
	Disposable nappies	NBEV	1	0	0	1	0	0	0	0	2	0	2
	Ice cream sticks	NBEV	3	1	2	0	0	3	1	1	10	1	11
	Illegal dumping	NBEV	0	0	0	5	0	4	1	0	10	0	10
	Other miscellaneous	NBEV	2	8	15	3	2	1	2	1	16	18	34
	Rubber pieces (not tyres)	NBEV	0	14	40	9	4	7	1	0	46	29	75
	Syringes	NBEV	0	0	0	2	0	0	0	0	2	0	2
	Tyres & pieces	NBEV	0	0	16	1	0	1	2	0	15	5	20
<b>TOTAL</b>			<b>9</b>	<b>36</b>	<b>116</b>	<b>42</b>	<b>9</b>	<b>25</b>	<b>12</b>	<b>6</b>	<b>160</b>	<b>95</b>	<b>255</b>
PAPER/PAPERBOARD	Cartons, flavoured milk, <1 litre	CDL	0	0	0	1	0	0	0	1	2	0	2
	Cartons, flavoured milk, 1 litre+	BEV	0	0	0	0	0	0	0	0	0	0	0
	Cartons, fruit juice, <1 litre	CDL	0	0	0	0	0	0	0	0	0	0	0
	Cartons, fruit juice, 1 litre+	BEV	0	0	0	0	0	0	0	0	0	0	0
	Cartons, milk, plain (white), all sizes	BEV	0	0	0	0	0	0	0	0	0	0	0
	Cigarette packets	NBEV	0	13	21	14	0	2	0	5	47	8	55
	Cups/take away containers	NBEV	0	7	88	6	4	2	0	12	79	40	119
	Coffee cups	NBEV	0	12	38	28	1	8	4	5	66	30	96
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0	0	0	0	0	0	0	0	0	0	0
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0	0	0	0	0	0	0	0	0	0	0
	Ice cream wrappers	NBEV	0	0	0	1	1	2	0	1	5	0	5
	Junk mail/free circulars	NBEV	0	1	3	4	1	9	0	2	7	13	20
	Newspapers & magazines	NBEV	0	0	2	5	0	0	1	0	4	4	8
	Other paper (including tissues)	NBEV	27	212	305	216	48	102	79	187	962	214	1176
	Packages & boxes	NBEV	0	2	17	22	1	5	0	7	42	12	54
	Paper bags	NBEV	0	1	19	9	1	1	3	2	16	20	36
Shopper docketts & related shopping paper (eg. lists)	NBEV	0	16	2	1	0	4	15	53	38	53	91	
Tickets, e.g. bus, ATM, vending machine etc.	NBEV	0	3	2	1	0	3	0	4	12	1	13	
<b>TOTAL</b>			<b>27</b>	<b>267</b>	<b>497</b>	<b>308</b>	<b>57</b>	<b>138</b>	<b>102</b>	<b>279</b>	<b>1280</b>	<b>395</b>	<b>1675</b>

KESAB - Litter Strategy Monitoring Wave 79 - May 2020			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
PLASTIC	6 ring can holders	NBEV	1	0	0	2	0	0	0	0	2	1	3
	Bags - heavier glossy typically branded carry bags	NBEV	2	0	2	3	2	3	0	0	8	4	12
	Bags - supermarket type light weight carry bags	NBEV	0	2	9	4	0	1	0	0	9	7	16
	Bread bag tags	NBEV	1	2	0	0	4	1	0	1	7	2	9
	Containers, domestic type	NBEV	2	0	0	0	0	0	1	0	3	0	3
	Containers, industrial e.g. oil	NBEV	1	0	0	0	0	0	0	0	1	0	1
	Drink pouches	CDL	0	0	0	0	0	1	0	0	1	0	1
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0	0	1	0	0	0	0	1	1	1	2
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0	0	3	0	0	1	0	0	4	0	4
	Flav. water/soft drink (carbonated), <1 litre	CDL	0	0	1	0	0	0	0	0	1	0	1
	Flav. water/soft drink (carbonated), 1 litre+	CDL	0	0	0	1	0	0	0	0	1	0	1
	Flavoured milk, <1 litre	CDL	0	0	4	1	1	0	0	0	4	2	6
	Flavoured milk, 1 litre+	BEV	0	0	3	2	0	0	0	0	4	1	5
	Fruit juice, <1 litre	CDL	1	0	1	2	0	0	0	0	4	0	4
	Fruit juice, 1 litre+	BEV	0	0	0	0	0	0	0	0	0	0	0
	Lollipop sticks	NBEV	1	14	3	4	10	0	4	4	25	15	40
	Other plastic	NBEV	55	82	301	113	22	73	26	95	664	103	767
	Packing tape & straps	NBEV	0	4	38	15	0	2	2	4	46	19	65
	Plain water (carbonated or non-carb), <1 litre	CDL	0	0	3	0	0	1	0	2	4	2	6
	Plain water (carbonated or non-carb), 1 litre+	CDL	0	0	1	0	0	0	0	0	1	0	1
	Plastic bottle tops	NBEV	19	36	49	49	8	16	3	12	158	34	192
	Sacks - sheeting - other bags	NBEV	1	0	5	2	0	4	1	0	10	3	13
	Snack bags & confectionery wrappers	NBEV	5	24	36	17	9	11	10	9	91	30	121
	Spoons/cutlery	NBEV	8	6	6	10	3	4	4	2	30	13	43
	Straws	NBEV	24	27	32	25	3	5	4	32	113	39	152
	Styrene foam boxes, sheets, etc.	NBEV	0	1	17	18	2	4	2	0	35	9	44
	Take away & cups	NBEV	2	25	75	27	1	6	3	10	124	25	149
White milk, all sizes	BEV	2	0	3	2	11	0	5	0	22	1	23	
Wine cask bladders	BEV	0	0	0	0	0	1	0	0	1	0	1	
<b>TOTAL</b>		<b>125</b>	<b>223</b>	<b>593</b>	<b>297</b>	<b>76</b>	<b>134</b>	<b>65</b>	<b>172</b>	<b>1374</b>	<b>311</b>	<b>1685</b>	
<b>GRAND TOTAL</b>		<b>286</b>	<b>1192</b>	<b>1796</b>	<b>910</b>	<b>213</b>	<b>384</b>	<b>501</b>	<b>930</b>	<b>4749</b>	<b>1463</b>	<b>6212</b>	

# Data Summary - Volumes

KESAB - Litter Strategy Monitoring Wave 79 - May 2020		Volume - Cubic Metres											
		BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS	
<b>CIGARETTE BUTTS</b>		NBEV	0.000013	0.000064	0.000031	0.000020	0.000005	0.000007	0.000034	0.000051	0.00016	0.000060	0.000224
<b>GLASS</b>	Alcoholic sodas/spirit-based mixers, all sizes	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Beer, all colours of glass, <750ml	CDL	0.000000	0.000463	0.004629	0.000926	0.000000	0.000000	0.000000	0.000000	0.002315	0.003703	0.006018
	Beer, all colours of glass, 750ml+	CDL	0.000000	0.000000	0.005444	0.000000	0.000000	0.000000	0.000000	0.000000	0.000907	0.004536	0.005444
	Cider/fruit based etc.	CDL	0.000000	0.000000	0.000458	0.000000	0.000000	0.000000	0.000000	0.000000	0.000458	0.000000	0.000458
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Flav. water/soft drink (carbonated), <1 litre	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Flav. water/soft drink (carbonated), 1 litre+	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Fruit juice, <1 litre	CDL	0.000000	0.000424	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000424	0.000000	0.000424
	Fruit juice, 1 litre+	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Other glass	NBEV	0.000059	0.000903	0.001532	0.000570	0.000000	0.000137	0.000236	0.000079	0.002828	0.000687	0.003516
	Plain water (carbonated or non-carb), <1 litre	CDL	0.000000	0.000000	0.000000	0.000581	0.000000	0.000581	0.000000	0.000000	0.001162	0.000000	0.001162
	Plain water (carbonated or non-carb), 1 litre+	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Wine & spirit, all sizes	BEV	0.000000	0.000891	0.001783	0.000000	0.000000	0.000000	0.000000	0.000000	0.001783	0.000891	0.002674
Wine cooler, all sizes	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
<b>TOTAL</b>		<b>0.000059</b>	<b>0.002682</b>	<b>0.013846</b>	<b>0.002076</b>	<b>0.000000</b>	<b>0.000719</b>	<b>0.000236</b>	<b>0.000079</b>	<b>0.009877</b>	<b>0.009819</b>	<b>0.019696</b>	
<b>METAL</b>	Aerosols - pressure packs	NBEV	0.000000	0.000000	0.001368	0.000684	0.000000	0.000000	0.000000	0.000000	0.002053	0.000000	0.002053
	Alcoholic sodas & spirit-based mixers	CDL	0.000000	0.000431	0.001726	0.001294	0.000000	0.000000	0.000000	0.000000	0.003020	0.000431	0.003451
	Beer, aluminium, all types, all sizes	CDL	0.000000	0.000000	0.000863	0.000863	0.000000	0.000000	0.000000	0.000000	0.000863	0.000863	0.001726
	Cider/fruit based etc.	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Flav. water/soft drink, (carbonated), all sizes	CDL	0.000000	0.000000	0.006383	0.000000	0.000000	0.000000	0.000000	0.000000	0.004255	0.002128	0.006383
	Flav. water/soft drink, (non-carb), all sizes	CDL	0.000000	0.000000	0.000000	0.000382	0.000000	0.000000	0.000000	0.000000	0.000382	0.000000	0.000382
	Foil take away	NBEV	0.000000	0.000000	0.004161	0.001387	0.000462	0.000925	0.000000	0.000462	0.002774	0.004624	0.007398
	Food cans (including pet food)	NBEV	0.000000	0.000000	0.001391	0.000928	0.000000	0.000000	0.000000	0.000000	0.002319	0.000000	0.002319
	Industrial cans - all types	NBEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.004570	0.004570	0.000000	0.004570
	Metal bottle tops and can pull rings	NBEV	0.000028	0.000124	0.000420	0.000096	0.000036	0.000012	0.000028	0.000068	0.000712	0.000100	0.000812
	Metal pieces	NBEV	0.000011	0.000064	0.000424	0.000074	0.000000	0.000053	0.000074	0.000021	0.000562	0.000159	0.000721
	Other foil	NBEV	0.000008	0.000036	0.000066	0.000019	0.000031	0.000012	0.000006	0.000012	0.000145	0.000045	0.000190
<b>TOTAL</b>		<b>0.000046</b>	<b>0.000655</b>	<b>0.016802</b>	<b>0.005727</b>	<b>0.000530</b>	<b>0.001002</b>	<b>0.000108</b>	<b>0.005134</b>	<b>0.021654</b>	<b>0.008350</b>	<b>0.030004</b>	

KESAB - Litter Strategy Monitoring Wave 79 - May 2020			Volume - Cubic Metres										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
MISCELLANEOUS	Clothing & materials	NBEV	0.000000	0.000168	0.000643	0.000275	0.000046	0.000107	0.000061	0.000061	0.000842	0.000520	0.001362
	Condoms	NBEV	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000001	0.000001
	Construction materials	NBEV	0.000720	0.000000	0.000360	0.001080	0.000000	0.000720	0.000360	0.000000	0.001080	0.002160	0.003240
	Disposable nappies	NBEV	0.001125	0.000000	0.000000	0.001125	0.000000	0.000000	0.000000	0.000000	0.002250	0.000000	0.002250
	Ice cream sticks	NBEV	0.000003	0.000001	0.000002	0.000000	0.000000	0.000003	0.000001	0.000001	0.000009	0.000001	0.000010
	Illegal dumping	NBEV	0.000000	0.000000	0.000000	0.120000	0.000000	0.096000	0.024000	0.000000	0.240000	0.000000	0.240000
	Other miscellaneous	NBEV	0.000027	0.000108	0.000203	0.000041	0.000027	0.000014	0.000027	0.000014	0.000216	0.000243	0.000459
	Rubber pieces (not tyres)	NBEV	0.000000	0.000002	0.000007	0.000001	0.000001	0.000001	0.000000	0.000000	0.000008	0.000005	0.000012
	Syringes	NBEV	0.000000	0.000000	0.000000	0.000005	0.000000	0.000000	0.000000	0.000000	0.000005	0.000000	0.000005
	Tyres & pieces	NBEV	0.000000	0.000000	0.003600	0.000225	0.000000	0.000225	0.000450	0.000000	0.003375	0.001125	0.004500
<b>TOTAL</b>			<b>0.001875</b>	<b>0.000280</b>	<b>0.004814</b>	<b>0.122752</b>	<b>0.000074</b>	<b>0.097070</b>	<b>0.024899</b>	<b>0.000076</b>	<b>0.247784</b>	<b>0.004055</b>	<b>0.251839</b>
PAPER/PAPERBOARD	Cartons, flavoured milk, <1 litre	CDL	0.000000	0.000000	0.000000	0.000672	0.000000	0.000000	0.000000	0.000672	0.001345	0.000000	0.001345
	Cartons, flavoured milk, 1 litre+	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Cartons, fruit juice, <1 litre	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Cartons, fruit juice, 1 litre+	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Cartons, milk, plain (white), all sizes	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Cigarette packets	NBEV	0.000000	0.002832	0.004575	0.003050	0.000000	0.000436	0.000000	0.001089	0.010240	0.001743	0.011983
	Cups/take away containers	NBEV	0.000000	0.005103	0.064148	0.004374	0.002916	0.001458	0.000000	0.008747	0.057587	0.029158	0.086745
	Coffee cups	NBEV	0.000000	0.005880	0.018621	0.013721	0.000490	0.003920	0.001960	0.002450	0.032342	0.014701	0.047042
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Ice cream wrappers	NBEV	0.000000	0.000000	0.000000	0.000002	0.000002	0.000005	0.000000	0.000002	0.000012	0.000000	0.000012
	Junk mail/free circulars	NBEV	0.000000	0.000174	0.000522	0.000696	0.000174	0.001566	0.000000	0.000348	0.001218	0.002262	0.003480
	Newspapers & magazines	NBEV	0.000000	0.000000	0.002360	0.005900	0.000000	0.000000	0.001180	0.000000	0.004720	0.004720	0.009440
	Other paper (including tissues)	NBEV	0.000091	0.000717	0.001031	0.000730	0.000162	0.000345	0.000267	0.000632	0.003252	0.000723	0.003975
	Packages & boxes	NBEV	0.000000	0.000160	0.001360	0.001760	0.000080	0.000400	0.000000	0.000560	0.003360	0.000960	0.004320
	Paper bags	NBEV	0.000000	0.000011	0.000201	0.000095	0.000011	0.000011	0.000032	0.000021	0.000169	0.000212	0.000381
	Shopper docketts & related shopping paper (eg. lists)	NBEV	0.000000	0.000032	0.000004	0.000002	0.000000	0.000008	0.000030	0.000108	0.000077	0.000108	0.000185
Tickets, e.g. bus, ATM, vending machine etc.	NBEV	0.000000	0.000003	0.000002	0.000001	0.000000	0.000003	0.000000	0.000004	0.000011	0.000001	0.000011	
<b>TOTAL</b>			<b>0.000091</b>	<b>0.014912</b>	<b>0.092824</b>	<b>0.031004</b>	<b>0.003835</b>	<b>0.008151</b>	<b>0.003469</b>	<b>0.014634</b>	<b>0.114332</b>	<b>0.054587</b>	<b>0.168919</b>

KESAB - Litter Strategy Monitoring Wave 79 - May 2020			Volume - Cubic Metres											
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS	
PLASTIC	6 ring can holders	NBEV	0.000002	0.000000	0.000000	0.000003	0.000000	0.000000	0.000000	0.000000	0.000000	0.000003	0.000002	0.000005
	Bags - heavier glossy typically branded carry bags	NBEV	0.000175	0.000000	0.000175	0.000263	0.000175	0.000263	0.000000	0.000000	0.000000	0.000701	0.000350	0.001051
	Bags - supermarket type light weight carry bags	NBEV	0.000000	0.000068	0.000305	0.000136	0.000000	0.000034	0.000000	0.000000	0.000000	0.000305	0.000238	0.000543
	Bread bag tags	NBEV	0.000000	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000002	0.000000	0.000002
	Containers, domestic type	NBEV	0.016648	0.000000	0.000000	0.000000	0.000000	0.000000	0.008324	0.000000	0.000000	0.024972	0.000000	0.024972
	Containers, industrial e.g. oil	NBEV	0.022458	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.022458	0.000000	0.022458
	Drink pouches	CDL	0.000000	0.000000	0.000000	0.000000	0.000000	0.000086	0.000000	0.000000	0.000000	0.000086	0.000000	0.000086
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0.000000	0.000000	0.000738	0.000000	0.000000	0.000000	0.000000	0.000738	0.000000	0.000738	0.000738	0.001475
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL	0.000000	0.000000	0.003603	0.000000	0.000000	0.001201	0.000000	0.000000	0.000000	0.004804	0.000000	0.004804
	Flav. water/soft drink (carbonated), <1 litre	CDL	0.000000	0.000000	0.000622	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000622	0.000000	0.000622
	Flav. water/soft drink (carbonated), 1 litre+	CDL	0.000000	0.000000	0.000000	0.001654	0.000000	0.000000	0.000000	0.000000	0.000000	0.001654	0.000000	0.001654
	Flavoured milk, <1 litre	CDL	0.000000	0.000000	0.002131	0.000533	0.000533	0.000000	0.000000	0.000000	0.000000	0.002131	0.001065	0.003196
	Flavoured milk, 1 litre+	BEV	0.000000	0.000000	0.006410	0.004273	0.000000	0.000000	0.000000	0.000000	0.000000	0.008547	0.002137	0.010683
	Fruit juice, <1 litre	CDL	0.000400	0.000000	0.000400	0.000800	0.000000	0.000000	0.000000	0.000000	0.000000	0.001600	0.000000	0.001600
	Fruit juice, 1 litre+	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Lollipop sticks	NBEV	0.000001	0.000007	0.000002	0.000002	0.000005	0.000000	0.000002	0.000002	0.000002	0.000013	0.000008	0.000021
	Other plastic	NBEV	0.000069	0.000103	0.000376	0.000141	0.000028	0.000091	0.000033	0.000119	0.000000	0.000830	0.000129	0.000959
	Packing tape & straps	NBEV	0.000000	0.000001	0.000010	0.000004	0.000000	0.000001	0.000001	0.000001	0.000001	0.000012	0.000005	0.000018
	Plain water (carbonated or non-carb), <1 litre	CDL	0.000000	0.000000	0.002364	0.000000	0.000000	0.000788	0.000000	0.001576	0.000000	0.003152	0.001576	0.004727
	Plain water (carbonated or non-carb), 1 litre+	CDL	0.000000	0.000000	0.001542	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.001542	0.000000	0.001542
	Plastic bottle tops	NBEV	0.000152	0.000288	0.000392	0.000392	0.000064	0.000128	0.000024	0.000096	0.000000	0.001265	0.000272	0.001537
	Sacks - sheeting - other bags	NBEV	0.000000	0.000000	0.000002	0.000001	0.000000	0.000001	0.000000	0.000000	0.000000	0.000003	0.000001	0.000004
	Snack bags & confectionery wrappers	NBEV	0.000039	0.000188	0.000282	0.000133	0.000070	0.000086	0.000078	0.000070	0.000019	0.000713	0.000235	0.000947
	Spoons/cutlery	NBEV	0.000077	0.000058	0.000058	0.000096	0.000029	0.000038	0.000038	0.000019	0.000019	0.000288	0.000125	0.000413
	Straws	NBEV	0.000099	0.000111	0.000132	0.000103	0.000012	0.000021	0.000017	0.000132	0.000000	0.000466	0.000161	0.000627
	Styrene foam boxes, sheets, etc.	NBEV	0.000000	0.000038	0.000638	0.000675	0.000075	0.000150	0.000075	0.000000	0.000000	0.001313	0.000338	0.001650
	Take away & cups	NBEV	0.000414	0.005176	0.015527	0.005590	0.000207	0.001242	0.000621	0.002070	0.000000	0.025670	0.005176	0.030846
	White milk, all sizes	BEV	0.004273	0.000000	0.006410	0.004273	0.023504	0.000000	0.010683	0.000000	0.000000	0.047007	0.002137	0.049144
	Wine cask bladders	BEV	0.000000	0.000000	0.000000	0.000000	0.000000	0.000460	0.000000	0.000000	0.000000	0.000460	0.000000	0.000460
	<b>TOTAL</b>			<b>0.044807</b>	<b>0.006037</b>	<b>0.042117</b>	<b>0.019072</b>	<b>0.024703</b>	<b>0.004591</b>	<b>0.019896</b>	<b>0.004824</b>	<b>0.151357</b>	<b>0.014691</b>	<b>0.166047</b>
<b>GRAND TOTAL</b>			<b>0.046891</b>	<b>0.024630</b>	<b>0.170433</b>	<b>0.180651</b>	<b>0.029146</b>	<b>0.111539</b>	<b>0.048642</b>	<b>0.024796</b>	<b>0.545168</b>	<b>0.091561</b>	<b>0.636729</b>	

# Appendix 1: Tracking Graphs



## Weighting of Previous Results

Since February 2006 (Wave 32), 11 revised sites have been surveyed concurrently with the 151 original sites included within the litter monitor program since its inception in February 1998. The new and old sites were surveyed simultaneously across four Waves of the monitor.

These 11 revised sites have previously been surveyed concurrently with the 151 original sites to replace 11 of the original sites that were found to be unusual in nature, and analyses have typically focused on results for the 151 sites including the 11 new sites and the 151 sites including the 11 old sites separately.

However, in counts since the February 2007 Monitor only the 151 revised sites (incorporating the 11 new locations) have been surveyed. In order to facilitate tracking comparisons, figures prior to February 2007 have been weighted based upon the variations between results corresponding to the 151 sites including the 11 new sites and the 151 sites including the 11 old sites.

Weighting techniques were based upon comparisons of figures for items and volumes recorded during Waves 32, 33, 34 and 35 across all sites incorporating either the 11 original or 11 revised sites. Differences between such figures provided indices of the degree of consistent variation between original and revised site litter data, and reliable weightings were thereby established.

Figures which have been weighted included:

- **Absolute values (counts and volumes) within material categories and site types**, since the inclusion of the revised sites resulted in differences in nearly all absolute values of counted litter.
- **Comparisons between proportional representation of litter across site types**, due to the fact that site revision altered the proportions of litter contributed to the total litter stream within certain site categories whilst others remained unchanged.

However, preliminary investigations demonstrated that proportional contribution to the total litter stream within material types was consistently similar between the original and revised site sets. This finding supports the assumption that whilst the quantities of litter recorded differed between old and new sites, the types of materials present within such litter were relatively consistent. For this reason, proportional figures within material types did not require weighting.

Items within material categories across all 151 sites including either 11 original or 11 revised sites	Wave 32				Wave 33				Wave 34				Wave 35			
	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old
Glass	419	311	108	0.74224344	349	293	56	0.83954155	321	281	40	0.87538941	305	249	56	0.81639344
Metal	1505	1218	287	0.80930233	1450	1099	351	0.75793103	1440	1086	354	0.75416667	1517	1183	334	0.77982861
Plastic	5447	3819	1628	0.70111988	5261	3866	1395	0.73484128	5057	3575	1482	0.70694087	5332	3827	1505	0.71774194
Paper/ paperboard	4299	2969	1330	0.69062573	3820	3003	817	0.78612565	4017	2961	1056	0.73711725	3616	2752	864	0.76106195
Miscellaneous	1286	975	311	0.75816485	1057	814	243	0.77010407	1025	815	210	0.79512195	1150	944	206	0.82086957
Cigarette Butts	7600	5744	1856	0.75578947	9606	6814	2792	0.70934832	10950	6959	3991	0.63552511	10875	6474	4401	0.59531034
<b>TOTAL</b>	20556	15036	5520	0.73146527	21543	15889	5654	0.73754816	22810	15677	7133	0.68728628	22795	15429	7366	0.67685896
<b>AVERAGE New as % of Old</b>				0.74124442				0.76220572				0.74164965				0.73829497
<b>OVERALL Mean New as % of Old</b>	0.7458															

Items within site type across all 151 sites including either 11 original or 11 revised sites		Residential	Beach	Industrial	Car Park	Shopping Centre	Retail	Recreational Park	Highway	Metropolitan	Regional	TOTAL
Wave 32	Old	1187	1016	2395	2194	1261	1517	617	10369	17020	3536	20556
	New	1187	1016	2196	2064	1292	1517	617	5147	11500	3536	15036
	Diff	0	0	199	130	-31	0	0	5222	5520	0	5520
	<b>New as % of Old</b>	1	1	0.92	0.94	1.02	1	1	0.50	0.68	1	7.3786248
Wave 33	Old	1227	737	2573	3142	2323	1659	590	9292	17788	3755	21543
	New	1227	737	2428	2722	1919	1659	590	4607	12134	3755	15889
	Diff	0	0	145	420	404	0	0	4685	5654	0	5654
	<b>New as % of Old</b>	1	1	0.94	0.87	0.83	1	1	0.50	0.68	1	7.1318625
Wave 34	Old	1185	721	2498	3365	1853	1670	479	11039	18749	4061	22810
	New	1185	721	2077	2724	1155	1670	479	5666	11616	4061	15677
	Diff	0	0	421	641	698	0	0	5373	7133	0	7133
	<b>New as % of Old</b>	1	1	0.83	0.81	0.62	1	1	0.51	0.62	1	6.7775595
Wave 35	Old	1134	728	2705	2601	2232	1801	729	10865	18640	4155	22795
	New	1134	728	2399	2156	1157	1801	729	5325	11274	4155	15429
	Diff	0	0	306	445	1075	0	0	5540	7366	0	7366
	<b>New as % of Old</b>	1	1	0.89	0.83	0.52	1	1	0.49	0.60	1	6.7242631
<b>Average New as % of Old</b>		1	1	0.89	0.86	0.75	1	1	0.50	0.65	1	7.0030775

Proportions of total items within site type across all 151 sites including either 11 original or 11 revised sites		Residential	Beach	Industrial	Car Park	Shopping Centre	Retail	Recreational Park	Highway	Metropolitan	Regional	TOTAL
<b>Wave 32</b>	Old	1187	1016	2395	2194	1261	1517	617	10369	17020	3536	<b>20556</b>
	New	1187	1016	2196	2064	1292	1517	617	5147	11500	3536	<b>15036</b>
	Old % of total items	5.8%	4.9%	11.7%	10.7%	6.1%	7.4%	3.0%	50.4%	82.8%	17.2%	
	New % of total items	7.9%	6.8%	14.6%	13.7%	8.6%	10.1%	4.1%	34.2%	76.5%	23.5%	
	<b>% change from Old to New</b>	<b>2.1%</b>	<b>1.8%</b>	<b>3.0%</b>	<b>3.1%</b>	<b>2.5%</b>	<b>2.7%</b>	<b>1.1%</b>	<b>-16.2%</b>	<b>-6.3%</b>	<b>6.3%</b>	
<b>Wave 33</b>	Old	1227	737	2573	3142	2323	1659	590	9292	17788	3755	<b>21543</b>
	New	1227	737	2428	2722	1919	1659	590	4607	12134	3755	<b>15889</b>
	Old % of total items	5.7%	3.4%	11.9%	14.6%	10.8%	7.7%	2.7%	43.1%	82.6%	17.4%	
	New % of total items	7.7%	4.6%	15.3%	17.1%	12.1%	10.4%	3.7%	29.0%	76.4%	23.6%	
	<b>% change from Old to New</b>	<b>2.0%</b>	<b>1.2%</b>	<b>3.3%</b>	<b>2.5%</b>	<b>1.3%</b>	<b>2.7%</b>	<b>1.0%</b>	<b>-14.1%</b>	<b>-6.2%</b>	<b>6.2%</b>	
<b>Wave 34</b>	Old	1185	721	2498	3365	1853	1670	479	11039	18749	4061	<b>22810</b>
	New	1185	721	2077	2724	1155	1670	479	5666	11616	4061	<b>15677</b>
	Old % of total items	5.2%	3.2%	11.0%	14.8%	8.1%	7.3%	2.1%	48.4%	82.2%	17.8%	
	New % of total items	7.6%	4.6%	13.2%	17.4%	7.4%	10.7%	3.1%	36.1%	74.1%	25.9%	
	<b>% change from Old to New</b>	<b>2.4%</b>	<b>1.4%</b>	<b>2.3%</b>	<b>2.6%</b>	<b>-0.8%</b>	<b>3.3%</b>	<b>1.0%</b>	<b>-12.3%</b>	<b>-8.1%</b>	<b>8.1%</b>	
<b>Wave 35</b>	Old	1134	728	2705	2601	2232	1801	729	10865	18640	4155	<b>22795</b>
	New	1134	728	2399	2156	1157	1801	729	5325	11274	4155	<b>15429</b>
	Old % of total items	5.0%	3.2%	11.9%	11.4%	9.8%	7.9%	3.2%	47.7%	81.8%	18.2%	
	New % of total items	7.3%	4.7%	15.5%	14.0%	7.5%	11.7%	4.7%	34.5%	73.1%	26.9%	
	<b>% change from Old to New</b>	<b>2.4%</b>	<b>1.5%</b>	<b>3.7%</b>	<b>2.6%</b>	<b>-2.3%</b>	<b>3.8%</b>	<b>1.5%</b>	<b>-13.2%</b>	<b>-8.7%</b>	<b>8.7%</b>	
<b>Average % difference from Old to New</b>		<b>2%</b>	<b>1%</b>	<b>3%</b>	<b>3%</b>	<b>0%</b>	<b>3%</b>	<b>1%</b>	<b>-14%</b>	<b>-7%</b>	<b>7%</b>	

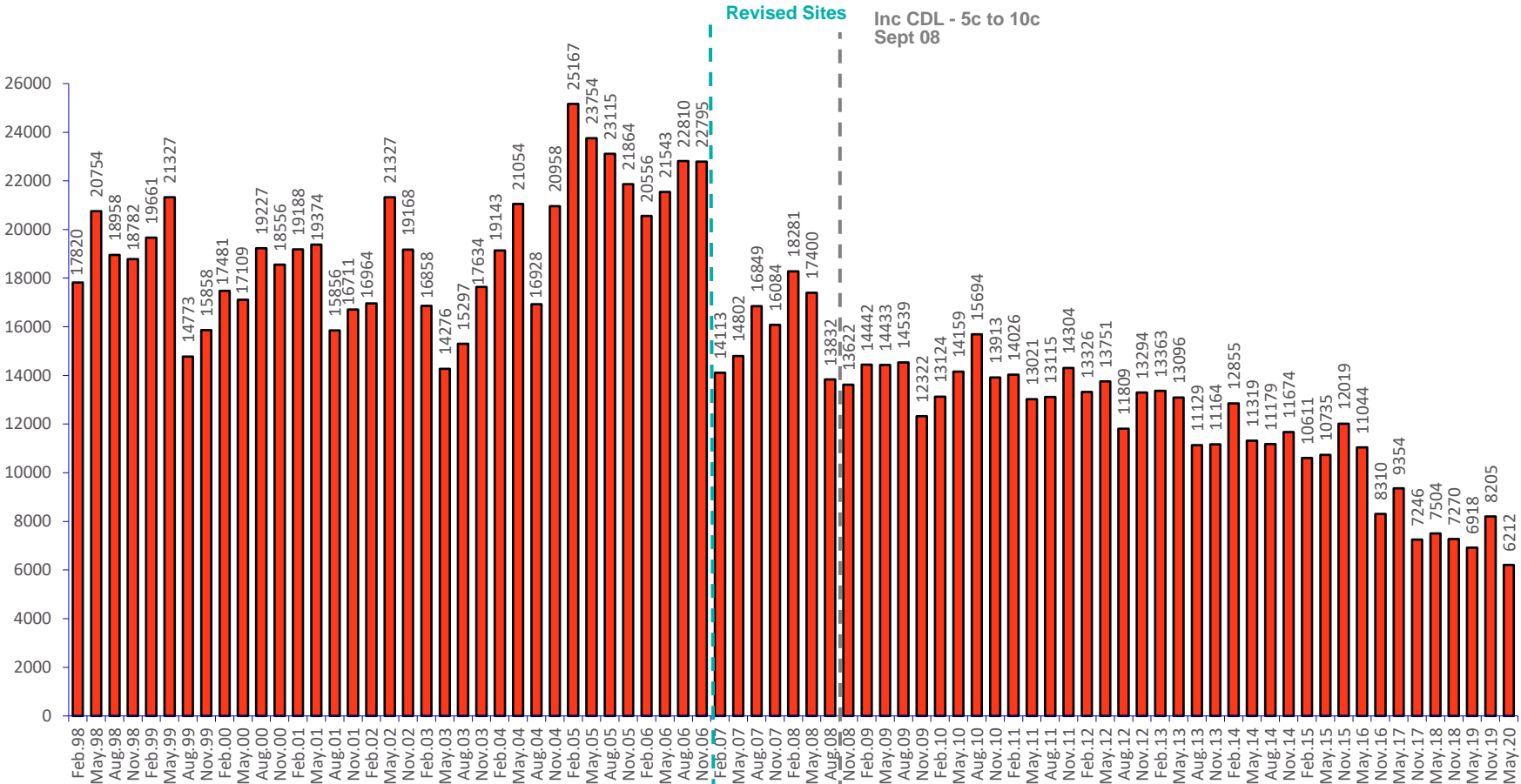
Volumes within material categories across all 151 sites including either 11 original or 11 revised sites	Wave 32				Wave 33				Wave 34				Wave 35			
	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old
Glass	0.11965	0.09027	0.02939	<b>0.75438</b>	0.08663	0.06859	0.01804	<b>0.79173</b>	0.08559	0.07086	0.01473	<b>0.82789</b>	0.06907	0.05316	0.01591	<b>0.76962</b>
Metal	0.22261	0.19846	0.02415	<b>0.8915</b>	0.15196	0.13181	0.02015	<b>0.86741</b>	0.15085	0.10952	0.04132	<b>0.72605</b>	0.17499	0.15130	0.02369	<b>0.86463</b>
Plastic	1.16278	0.72042	0.44235	<b>0.61957</b>	0.90407	0.71848	0.18559	<b>0.79472</b>	0.93411	0.63312	0.30099	<b>0.67778</b>	0.88814	0.67589	0.21225	<b>0.76102</b>
Paper/ paperboard	0.71375	0.41932	0.29443	<b>0.58749</b>	0.47904	0.36017	0.11888	<b>0.75184</b>	0.54568	0.35535	0.19033	<b>0.6512</b>	0.50410	0.35413	0.14998	<b>0.70249</b>
Miscellaneous	1.11014	0.83415	0.27599	<b>0.75139</b>	0.84900	0.61172	0.23727	<b>0.72052</b>	0.78143	0.71261	0.06882	<b>0.91194</b>	2.14021	1.97182	0.16839	<b>0.92132</b>
Cigarette Butts	0.00009	0.00007	0.00002	<b>0.75515</b>	0.00011	0.00008	0.00003	<b>0.70935</b>	0.00013	0.00008	0.00005	<b>0.63553</b>	0.00013	0.00007	0.00005	<b>0.59531</b>
<b>TOTAL</b>	<b>3.32902</b>	<b>2.26269</b>	<b>1.06633</b>	<b>0.67969</b>	<b>2.47082</b>	<b>1.89085</b>	<b>0.57996</b>	<b>0.76528</b>	<b>2.49778</b>	<b>1.88155</b>	<b>0.61624</b>	<b>0.75329</b>	<b>3.77664</b>	<b>3.20638</b>	<b>0.57026</b>	<b>0.849</b>
<b>AVERAGE New as % of Old</b>				<b>0.71988</b>				<b>0.77155</b>				<b>0.74052</b>				<b>0.78049</b>
<b>OVERALL MEAN DIFFERENCE</b>	<b>0.7531</b>															

Volumes within site type across all 151 sites including either 11 original or 11 revised sites		Residential	Beach	Industrial	Car Park	Shopping Centre	Retail	Recreational Park	Highway	Metropolitan	Regional	TOTAL
Wave 32	Old	0.05441	0.02998	0.57970	0.13090	0.01177	0.01877	0.02922	2.47428	2.54585	0.78318	3.32902
	New	0.05441	0.02998	0.57922	0.17275	0.00965	0.01877	0.02922	1.36868	1.47951	0.78318	2.26269
	Diff			0.00048	-0.04186	0.00212			1.10559	1.06633		
	<b>New as % of Old</b>	1	1	0.99917	1.31979	0.82005	1	1	0.55317	0.58115	1	
Wave 33	Old	0.06600	0.03600	0.54200	0.07100	0.03000	0.02100	0.04100	1.66400	1.85500	0.61500	2.47100
	New	0.06600	0.03600	0.53900	0.07000	0.01000	0.02100	0.04100	1.10700	1.27500	0.61500	1.89000
	Diff			0.00300	0.00100	0.02000			0.55700	0.58000		
	<b>New as % of Old</b>	1	1	0.99446	0.98592	0.33333	1	1	0.66526	0.68733	1	
Wave 34	Old	0.07800	0.06500	0.41100	0.14100	0.05000	0.01200	0.00600	1.73400	1.87300	0.62500	2.49700
	New	0.07800	0.06500	0.40000	0.14000	0.00900	0.01200	0.00600	1.17100	1.25700	0.62500	1.88100
	Diff			0.01100	0.00100	0.04100			0.56300	0.61600		
	<b>New as % of Old</b>	1	1	0.97324	0.99291	0.18000	1	1	0.67532	0.67112	1	
Wave 35	Old	0.17400	0.01700	0.58800	0.13000	0.05300	0.05900	0.01700	2.73700	2.12500	1.65200	3.77500
	New	0.17400	0.01700	0.58600	0.14600	0.03700	0.05900	0.01700	2.16900	1.55500	1.65200	3.20500
	Diff			0.00200	-0.01600	0.01600			0.56800	0.57000		
	<b>New as % of Old</b>	1	1	1.00	1.12	0.70	1	1	0.79	0.73	1	
<b>Average New as % of Old</b>		<b>1</b>	<b>1</b>	<b>0.99</b>	<b>1.11</b>	<b>0.51</b>	<b>1</b>	<b>1</b>	<b>0.67</b>	<b>0.67</b>	<b>1</b>	

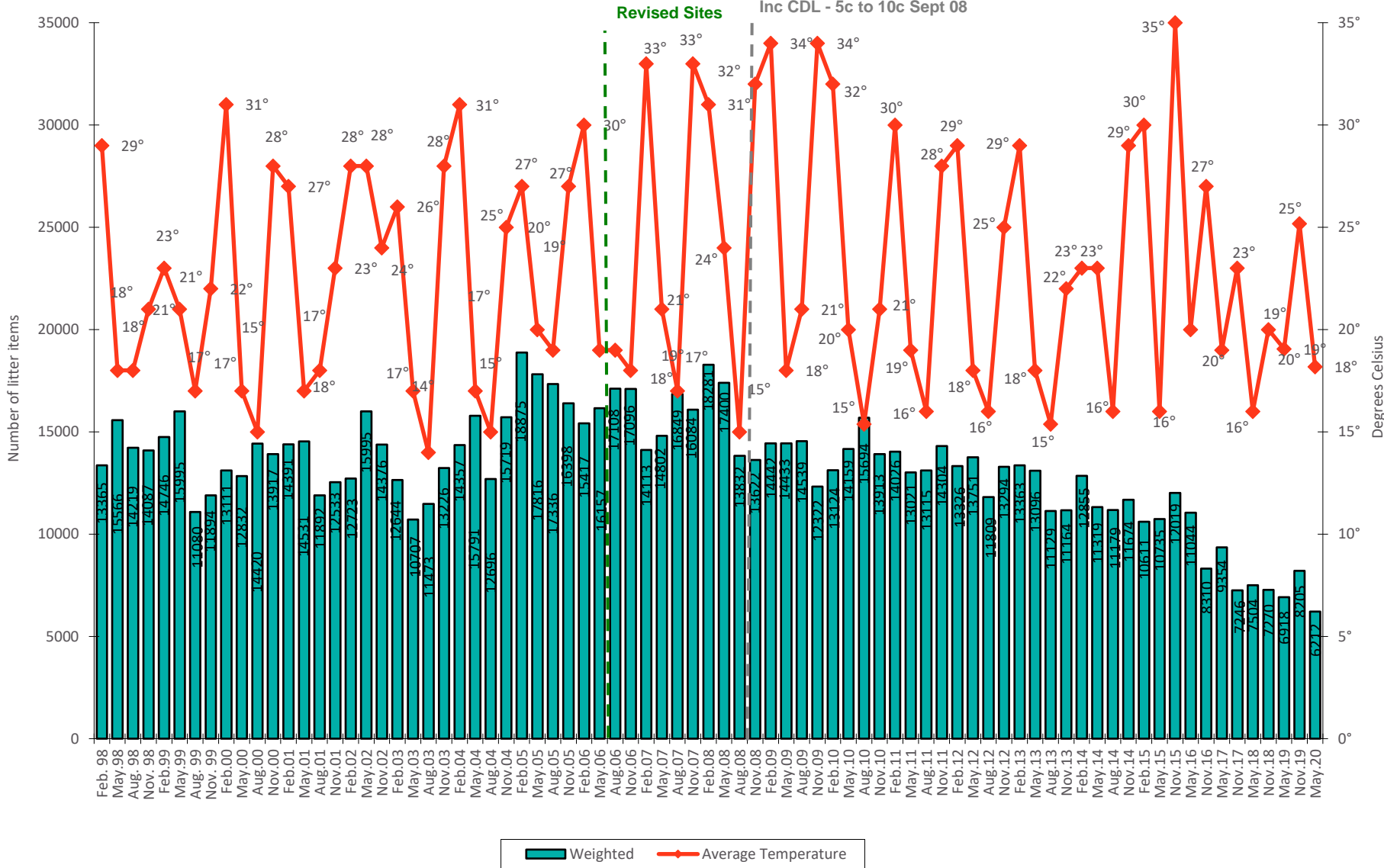
Proportions of total volume within site type across all 151 sites including either 11 original or 11 revised sites		Residential	Beach	Industrial	Car Park	Shopping Centre	Retail	Recreational Park	Highway	Metropolitan	Regional	TOTAL
Wave 32	Old	0.05441	0.02998	0.57970	0.13090	0.01177	0.01877	0.02922	2.47428	2.54585	0.78318	<b>3.32902</b>
	New	0.05441	0.02998	0.57922	0.17275	0.00965	0.01877	0.02922	1.36868	1.47951	0.78318	<b>2.26269</b>
	Old % of total volume	1.6%	0.9%	17.4%	3.9%	0.4%	0.6%	0.9%	74.3%	76.5%	23.5%	
	New % of total volume	2.4%	1.3%	25.6%	7.6%	0.4%	0.8%	1.3%	60.5%	65.4%	34.6%	
	<b>% change from Old to New</b>	<b>0.8%</b>	<b>0.4%</b>	<b>8.2%</b>	<b>3.7%</b>	<b>0.1%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>-13.8%</b>	<b>-11.1%</b>	<b>11.1%</b>	
Wave 33	Old	0.06600	0.03600	0.54200	0.07100	0.03000	0.02100	0.04100	1.66400	1.85500	0.61500	<b>2.47100</b>
	New	0.06600	0.03600	0.53900	0.07000	0.01000	0.02100	0.04100	1.10700	1.27500	0.61500	<b>1.89000</b>
	Old % of total volume	2.7%	1.5%	21.9%	2.9%	1.2%	0.8%	1.7%	67.3%	75.1%	24.9%	
	New % of total volume	3.5%	1.9%	28.5%	3.7%	0.5%	1.1%	2.2%	58.6%	67.5%	32.5%	
	<b>% change from Old to New</b>	<b>0.8%</b>	<b>0.4%</b>	<b>6.6%</b>	<b>0.8%</b>	<b>-0.7%</b>	<b>0.3%</b>	<b>0.5%</b>	<b>-8.8%</b>	<b>-7.6%</b>	<b>7.7%</b>	
Wave 34	Old	0.07800	0.06500	0.41100	0.14100	0.05000	0.01200	0.00600	1.73400	1.87300	0.62500	<b>2.49700</b>
	New	0.07800	0.06500	0.40000	0.14000	0.00900	0.01200	0.00600	1.17100	1.25700	0.62500	<b>1.88100</b>
	Old % of total volume	3.1%	2.6%	16.5%	5.6%	2.0%	0.5%	0.2%	69.4%	75.0%	25.0%	
	New % of total volume	4.1%	3.5%	21.3%	7.4%	0.5%	0.6%	0.3%	62.3%	66.8%	33.2%	
	<b>% change from Old to New</b>	<b>1.0%</b>	<b>0.9%</b>	<b>4.8%</b>	<b>1.8%</b>	<b>-1.5%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>-7.2%</b>	<b>-8.2%</b>	<b>8.2%</b>	
Wave 35	Old	0.17400	0.01700	0.58800	0.13000	0.05300	0.05900	0.01700	2.73700	2.12500	1.65200	<b>3.77500</b>
	New	0.17400	0.01700	0.58600	0.14600	0.03700	0.05900	0.01700	2.16900	1.55500	1.65200	<b>3.20500</b>
	Old % of total volume	4.6%	0.5%	15.6%	3.4%	1.4%	1.6%	0.5%	72.5%	56.3%	43.8%	
	New % of total volume	5.4%	0.5%	18.3%	4.6%	1.2%	1.8%	0.5%	67.7%	48.5%	51.5%	
	<b>% change from Old to New</b>	<b>0.8%</b>	<b>0.1%</b>	<b>2.7%</b>	<b>1.1%</b>	<b>-0.2%</b>	<b>0.3%</b>	<b>0.1%</b>	<b>-4.8%</b>	<b>-7.8%</b>	<b>7.8%</b>	
<b>Average % difference from Old to New</b>		<b>1%</b>	<b>0%</b>	<b>6%</b>	<b>2%</b>	<b>-1%</b>	<b>0%</b>	<b>0%</b>	<b>-9%</b>	<b>-9%</b>	<b>9%</b>	

# Unweighted Tracking Graphs - Items

Total Litter - Number of Items

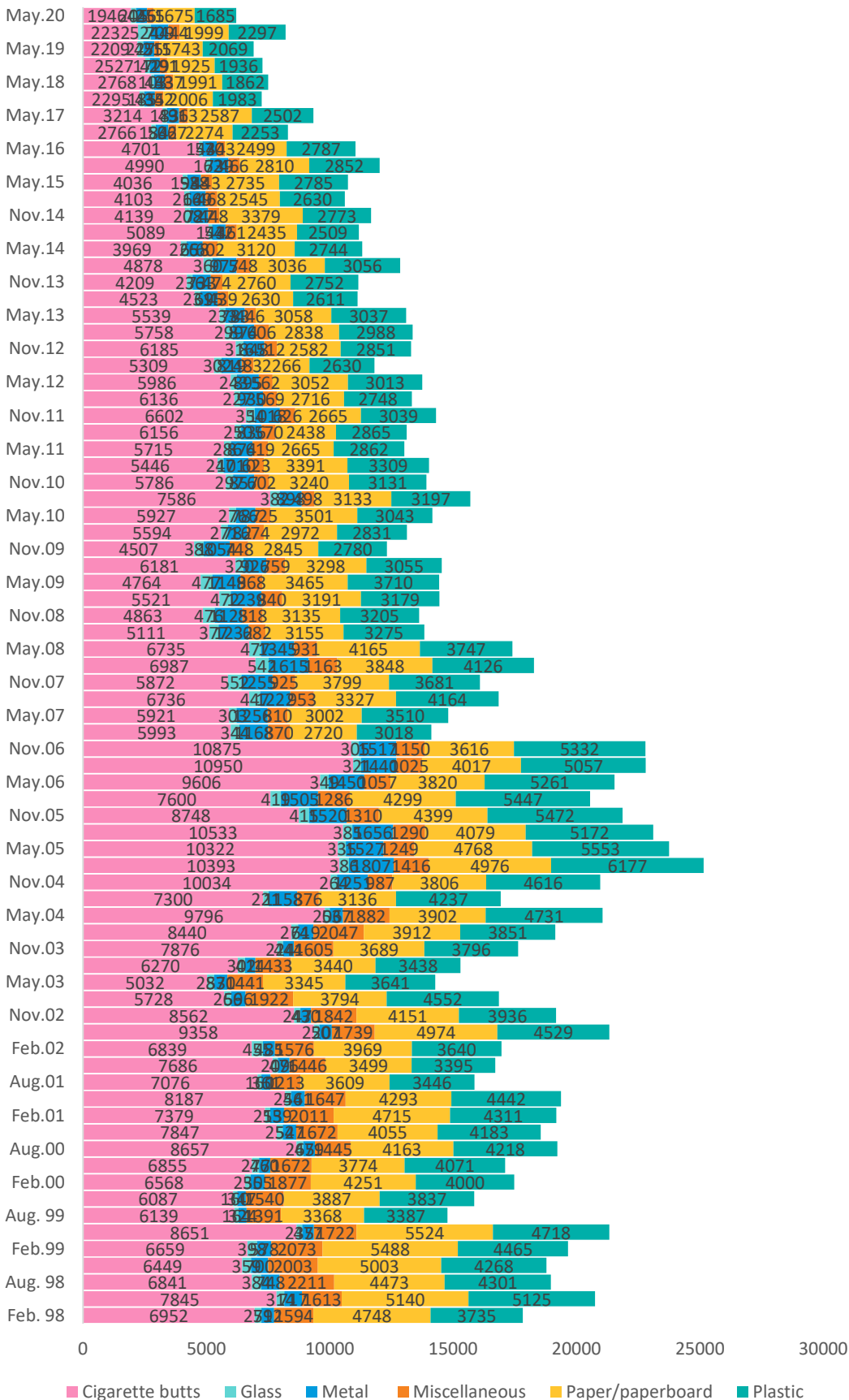


Weather Temperature and Total Number of Litter Items

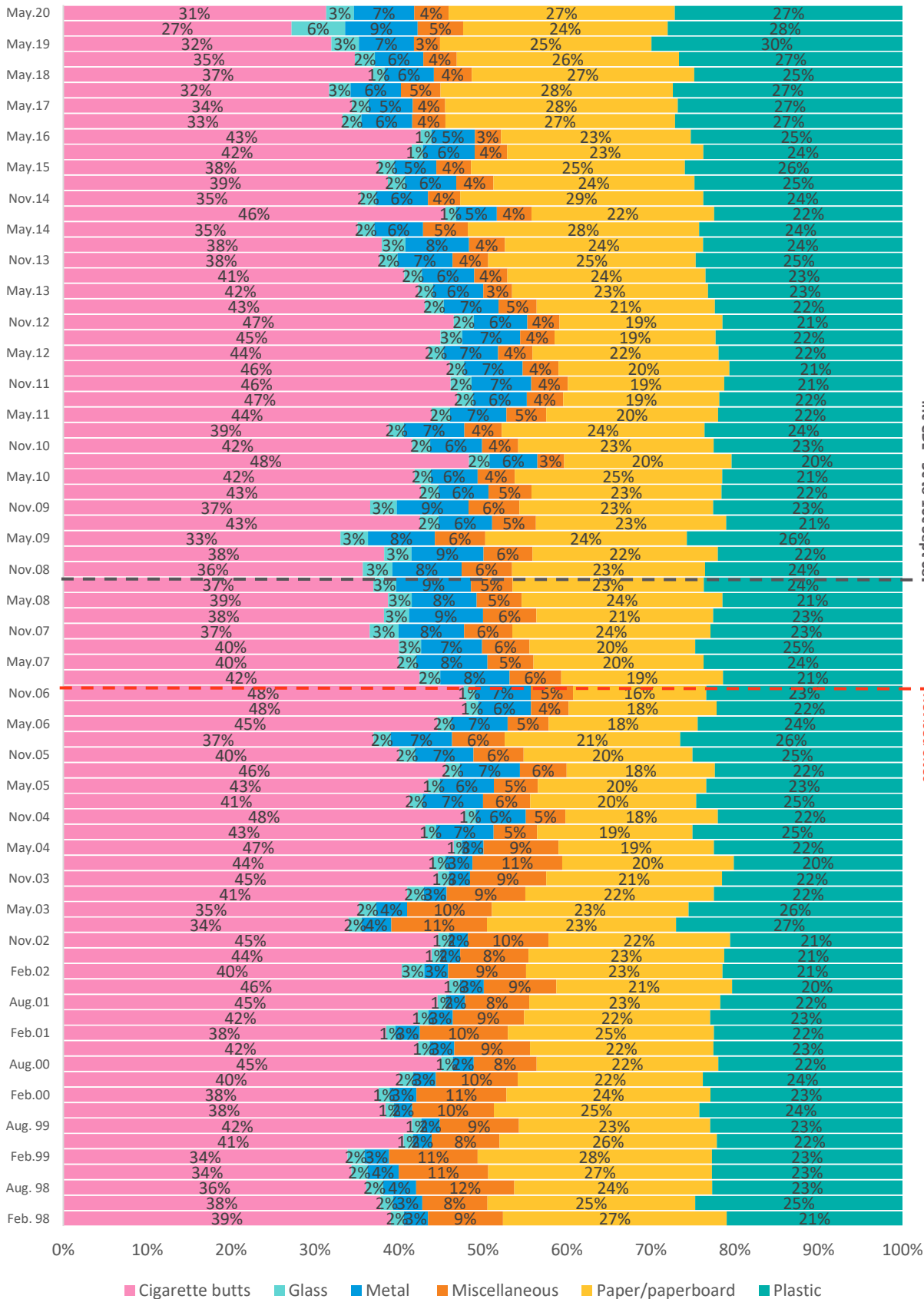




Number of Litter Items by Material Type



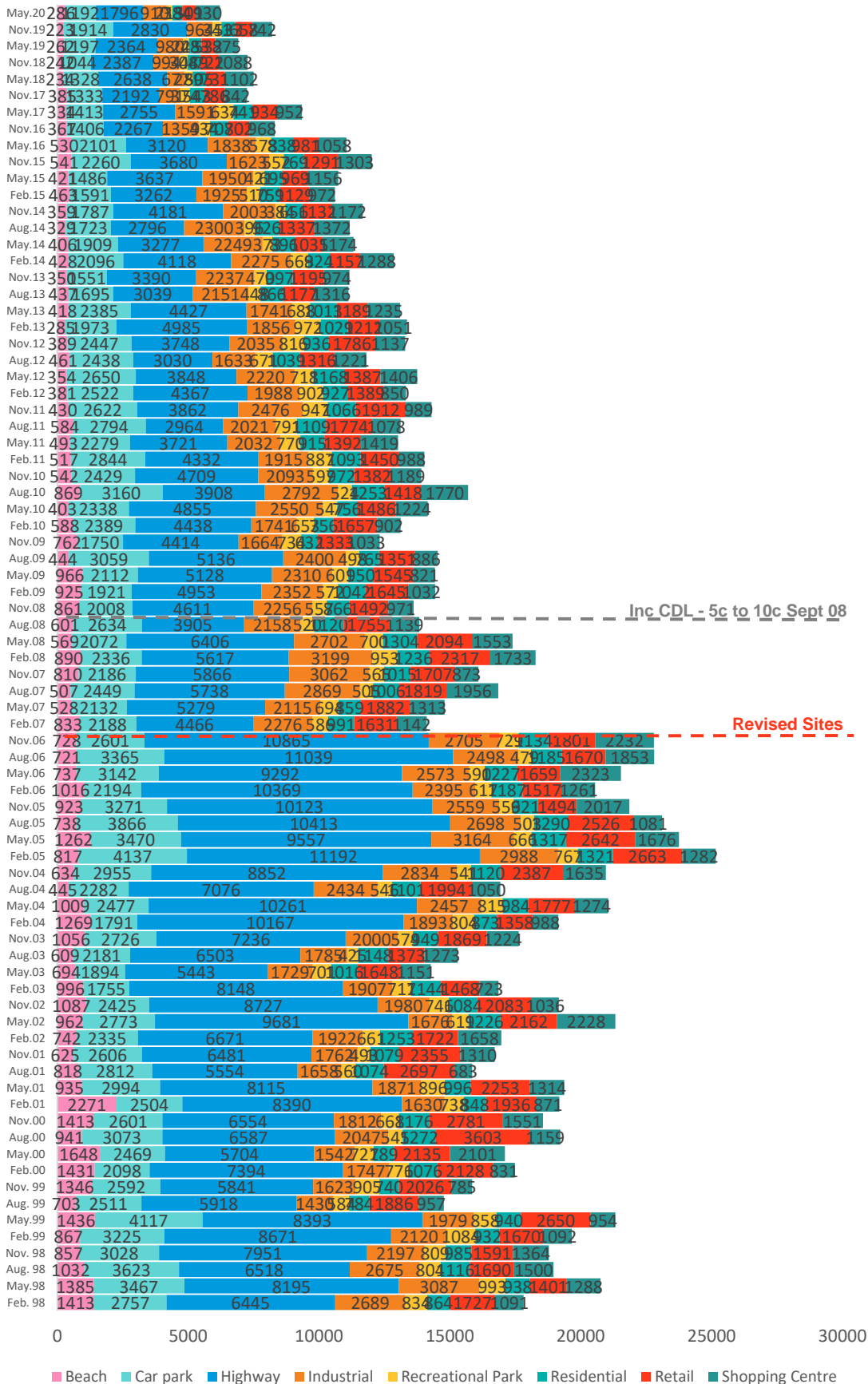
Proportion of Total Litter Stream by Material Type



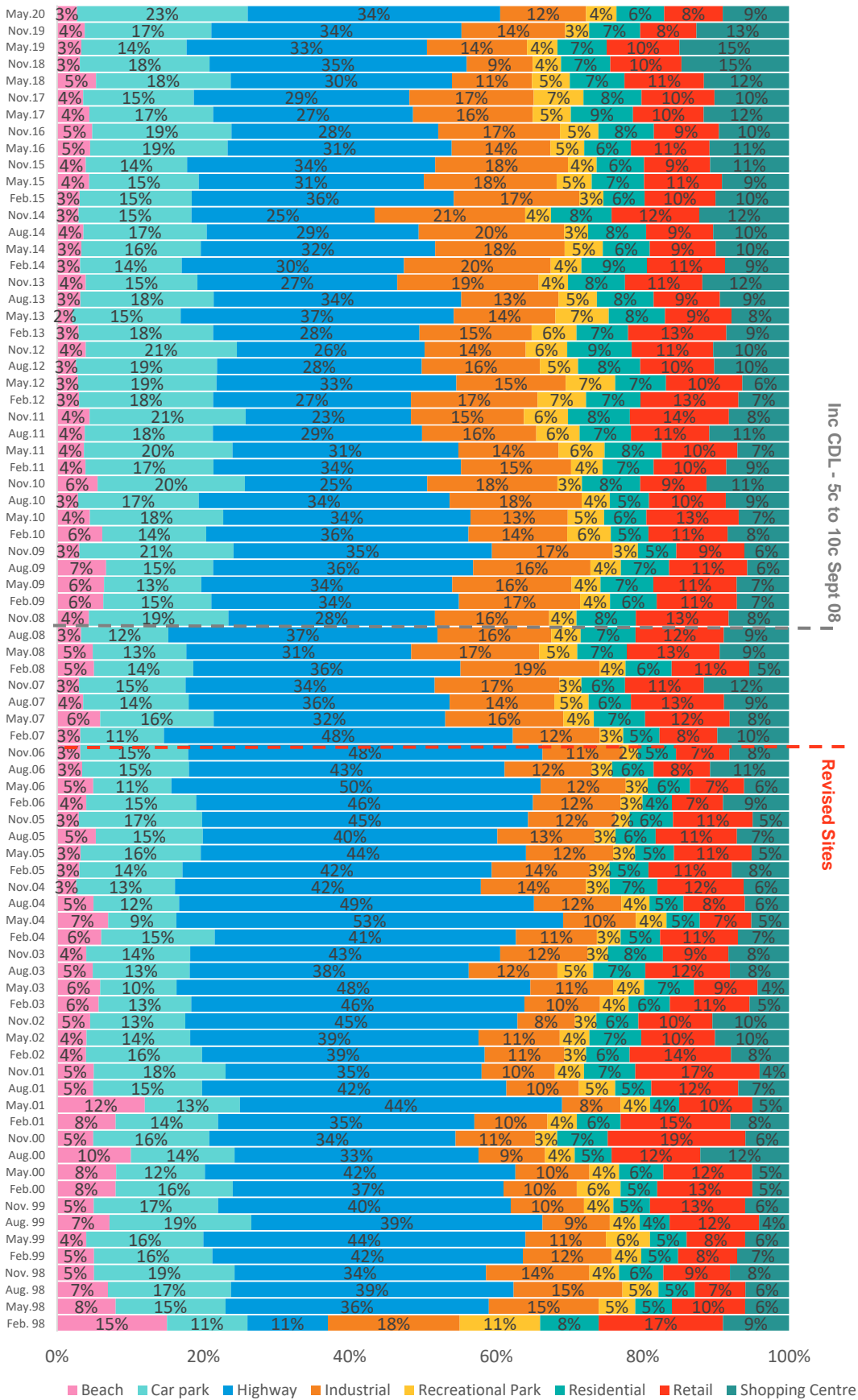
Inc CDL - Sc to 10c Sept 081

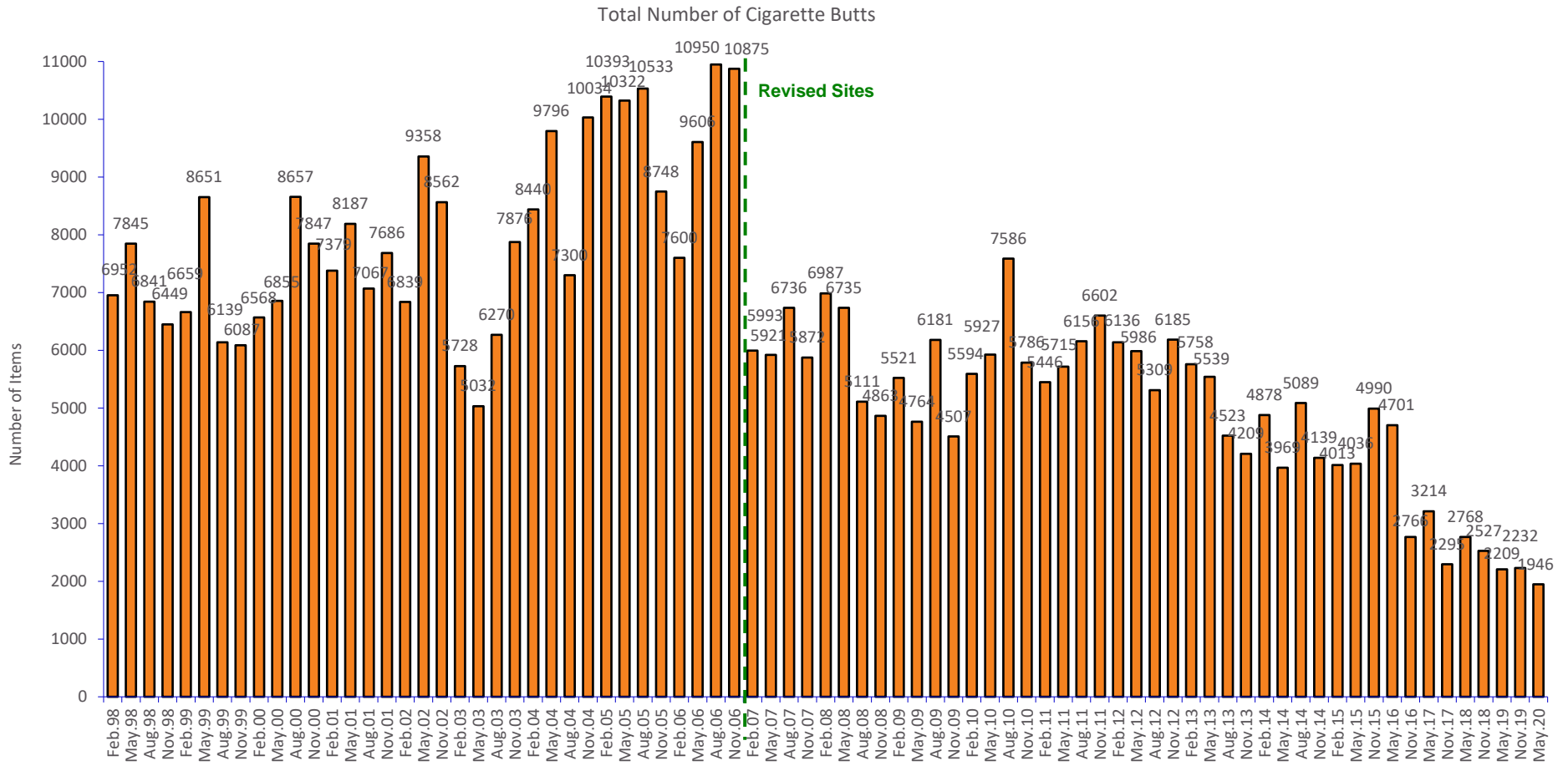
Revised Sites

Number of Litter Items by Material Type

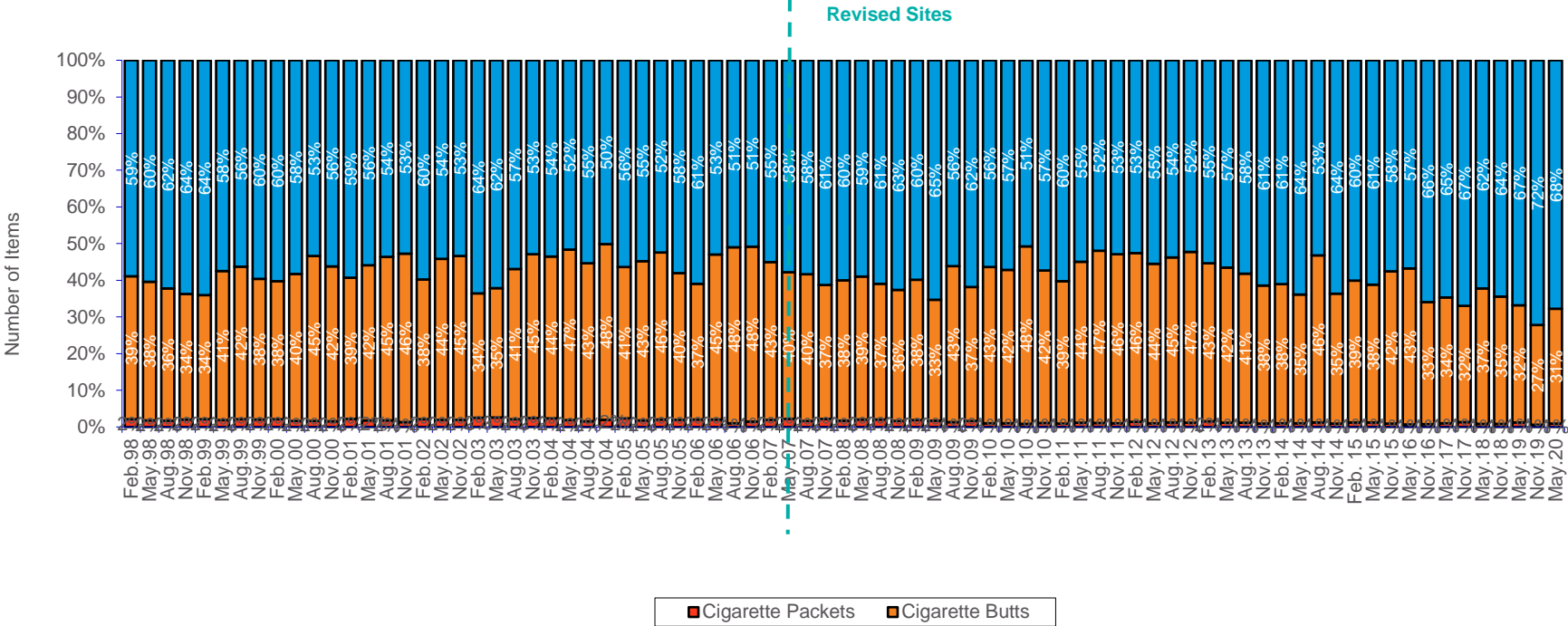


Proportion of Total Litter by Site Type

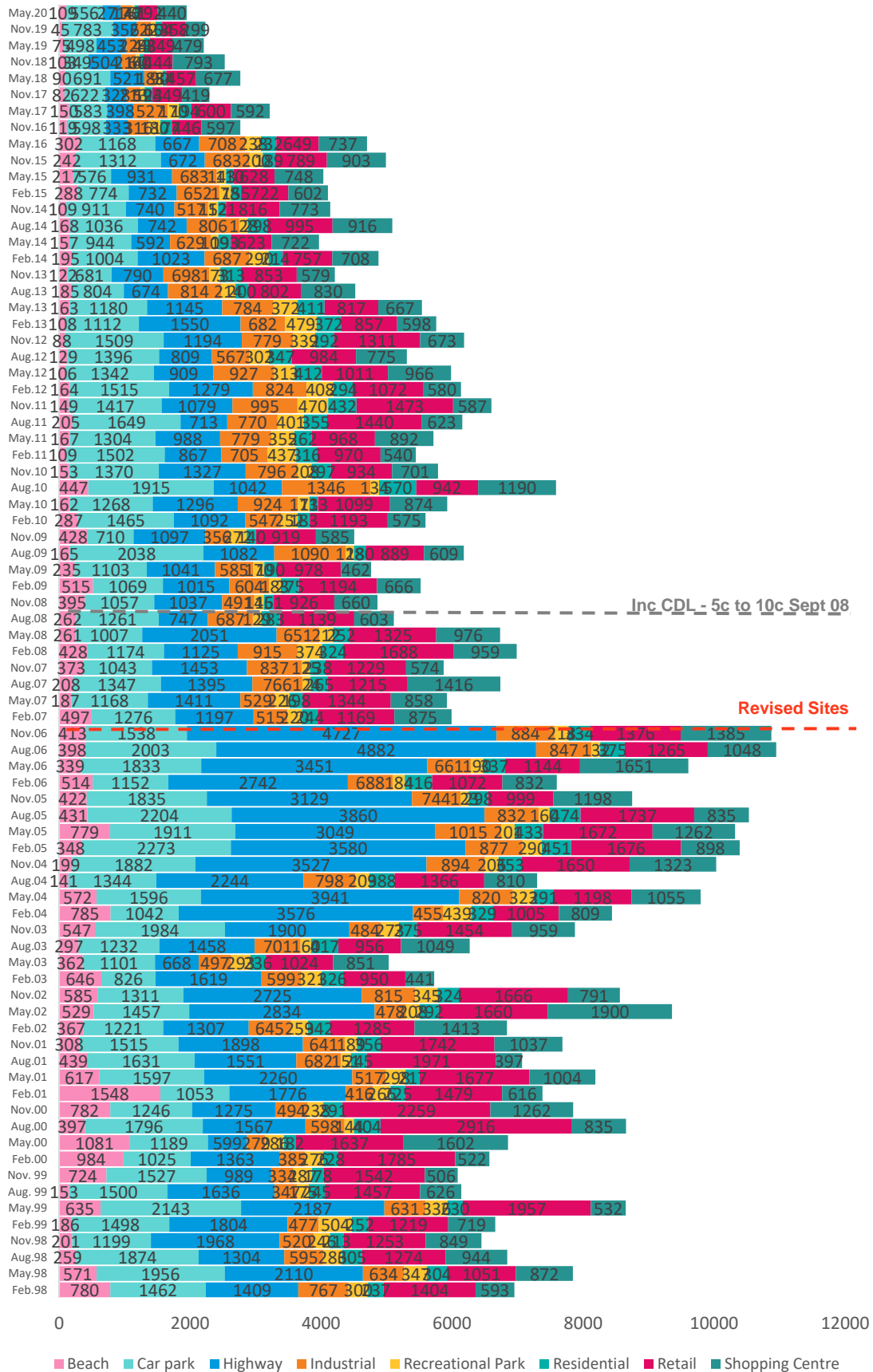




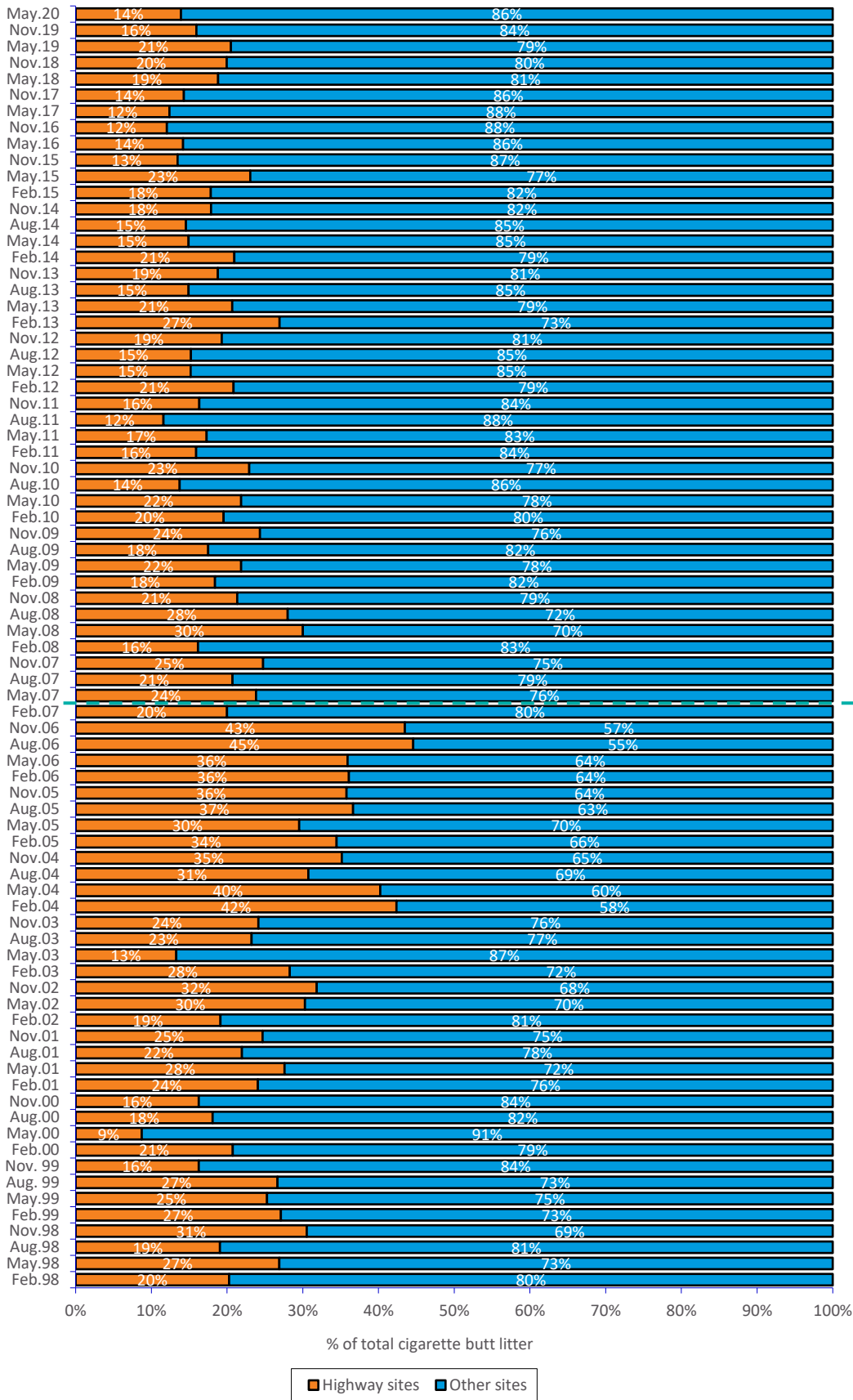
Proportion of Cigarette Related Litter Items in Total Litter Stream



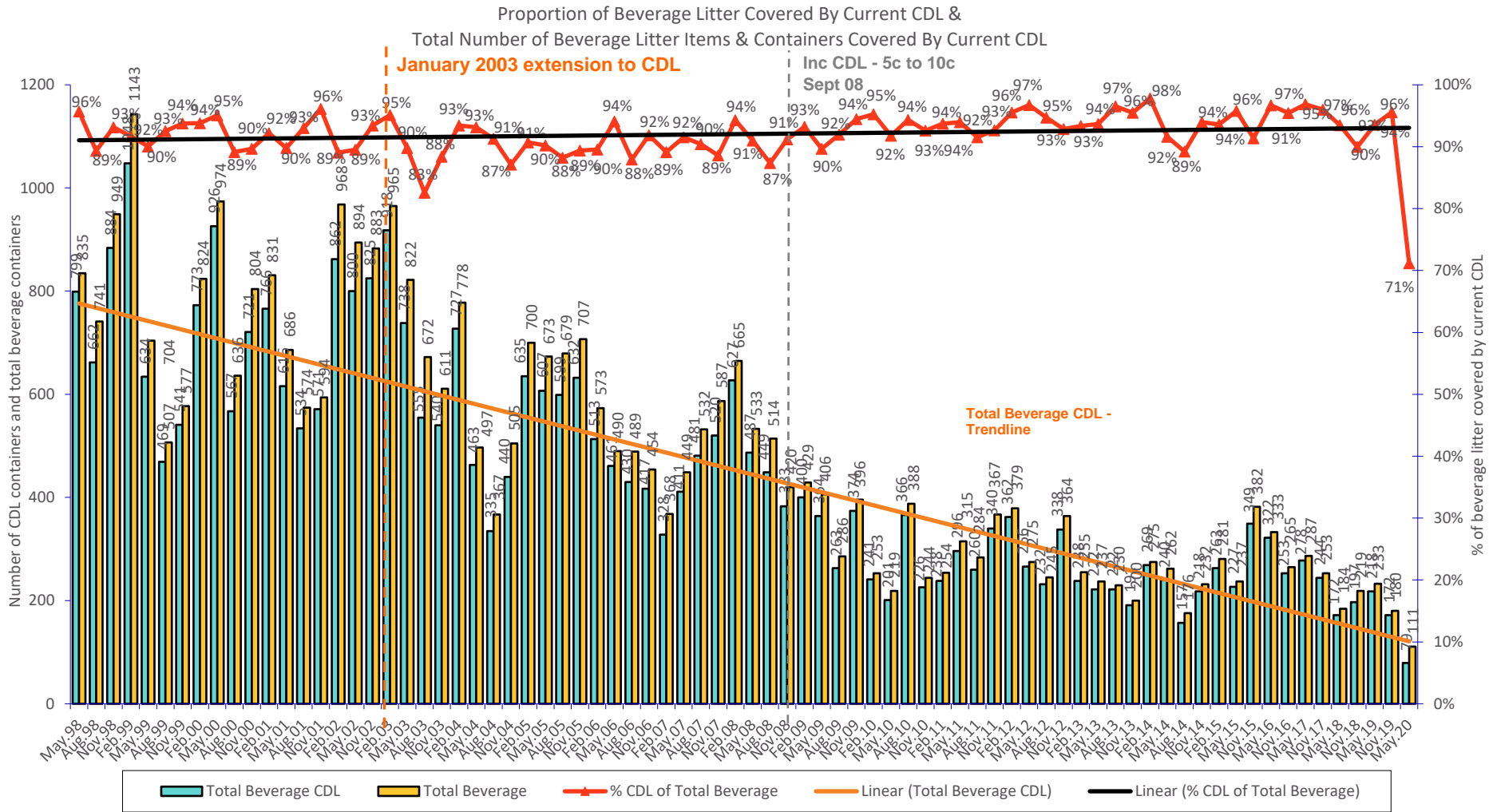
### Number of Cigarette Butts by Site Type



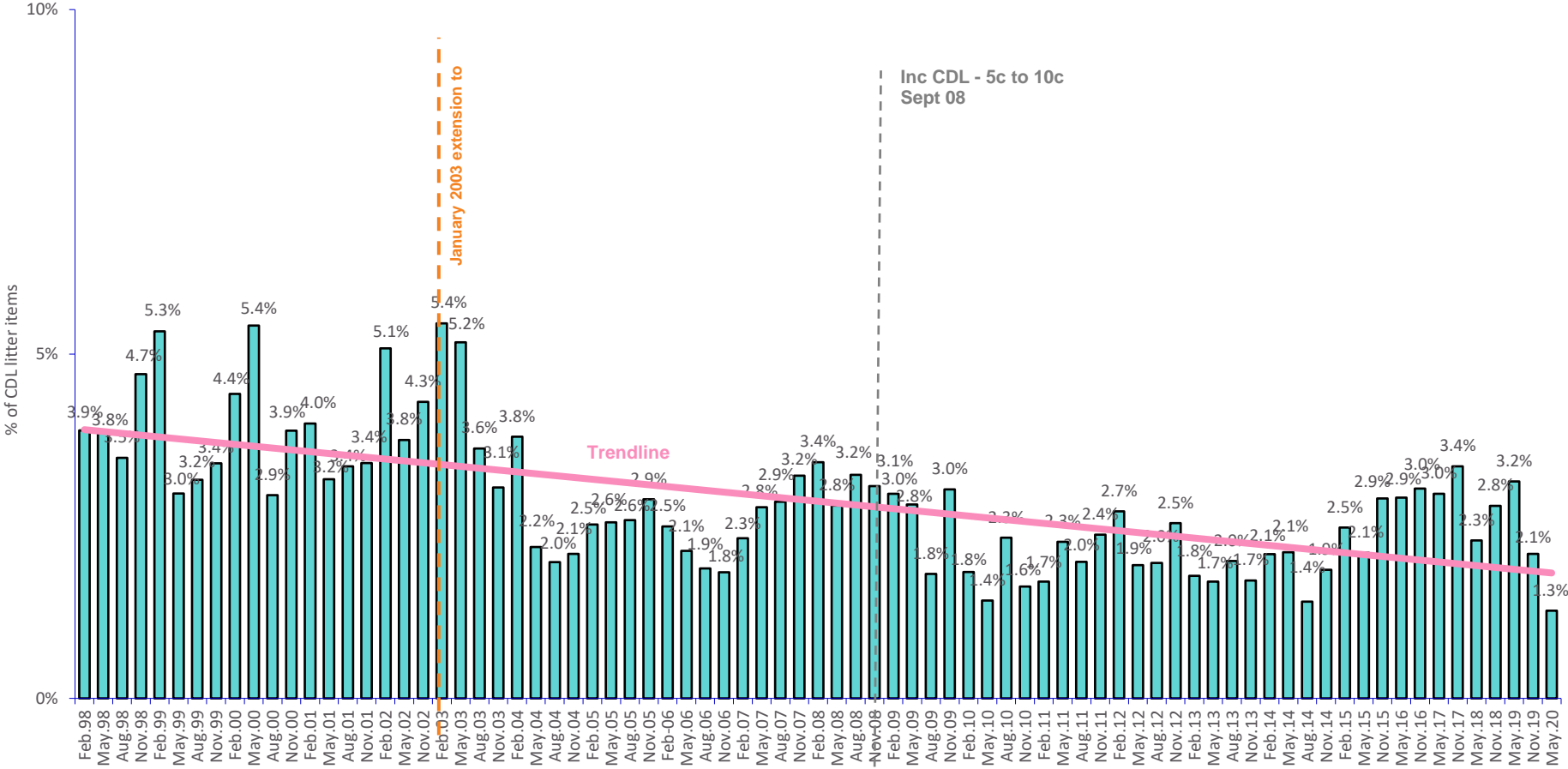
Proportion of Total Cigarette Butt Litter at  
Highway sites & Other sites



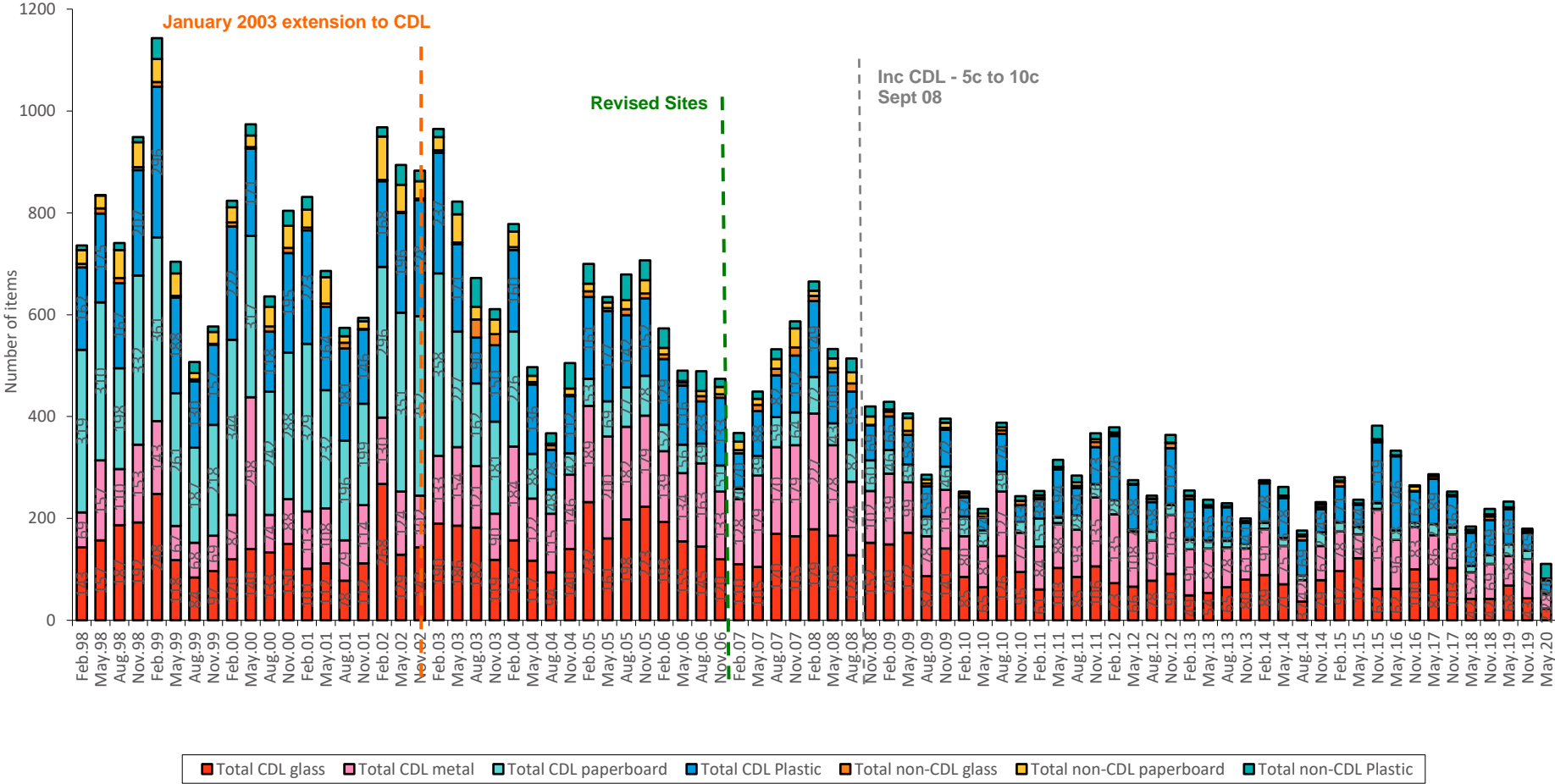




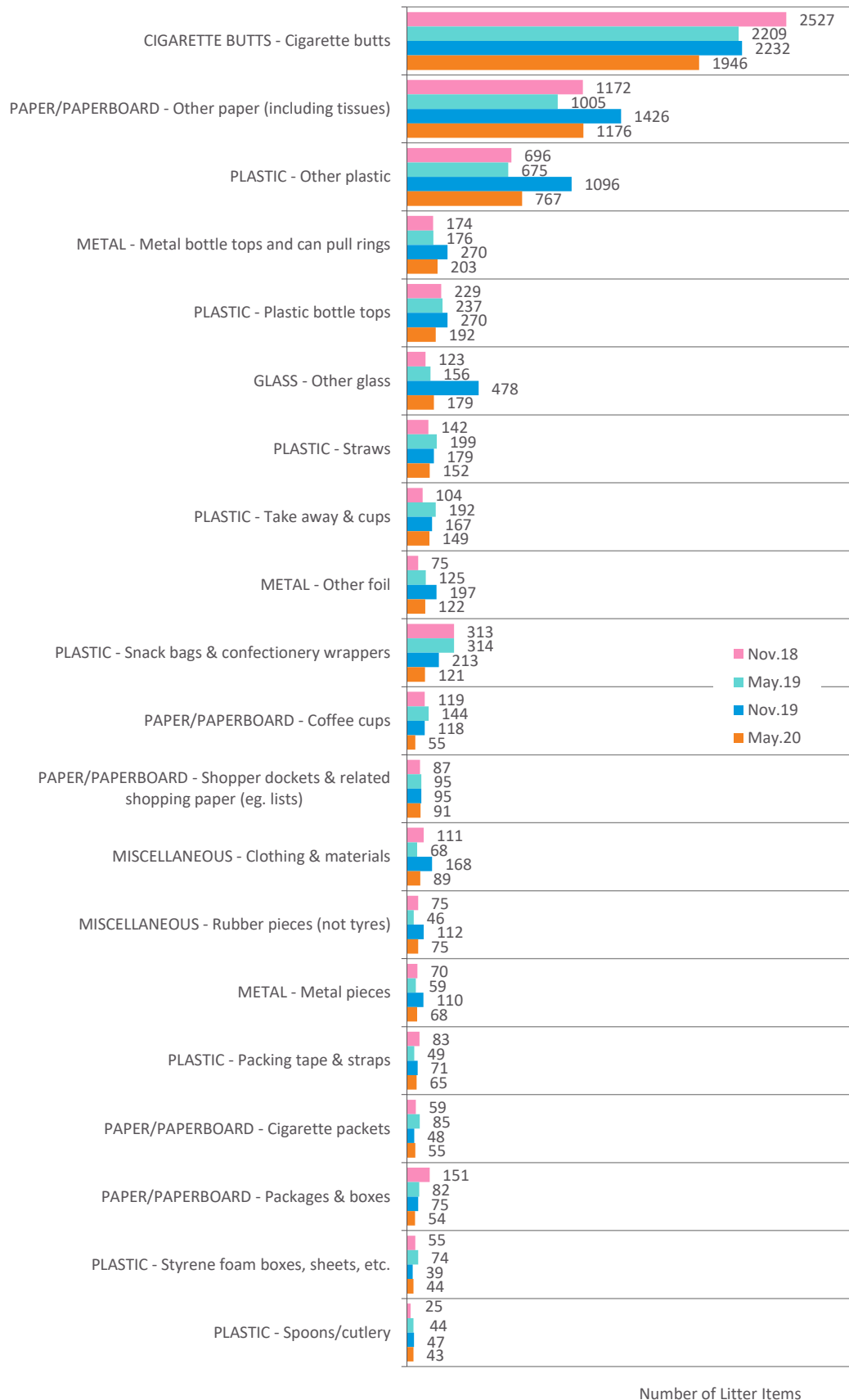
Proportion of Current CDL Litter Items in Total Litter Stream



CDL and Non-CDL Beverage Items Within Material Categories

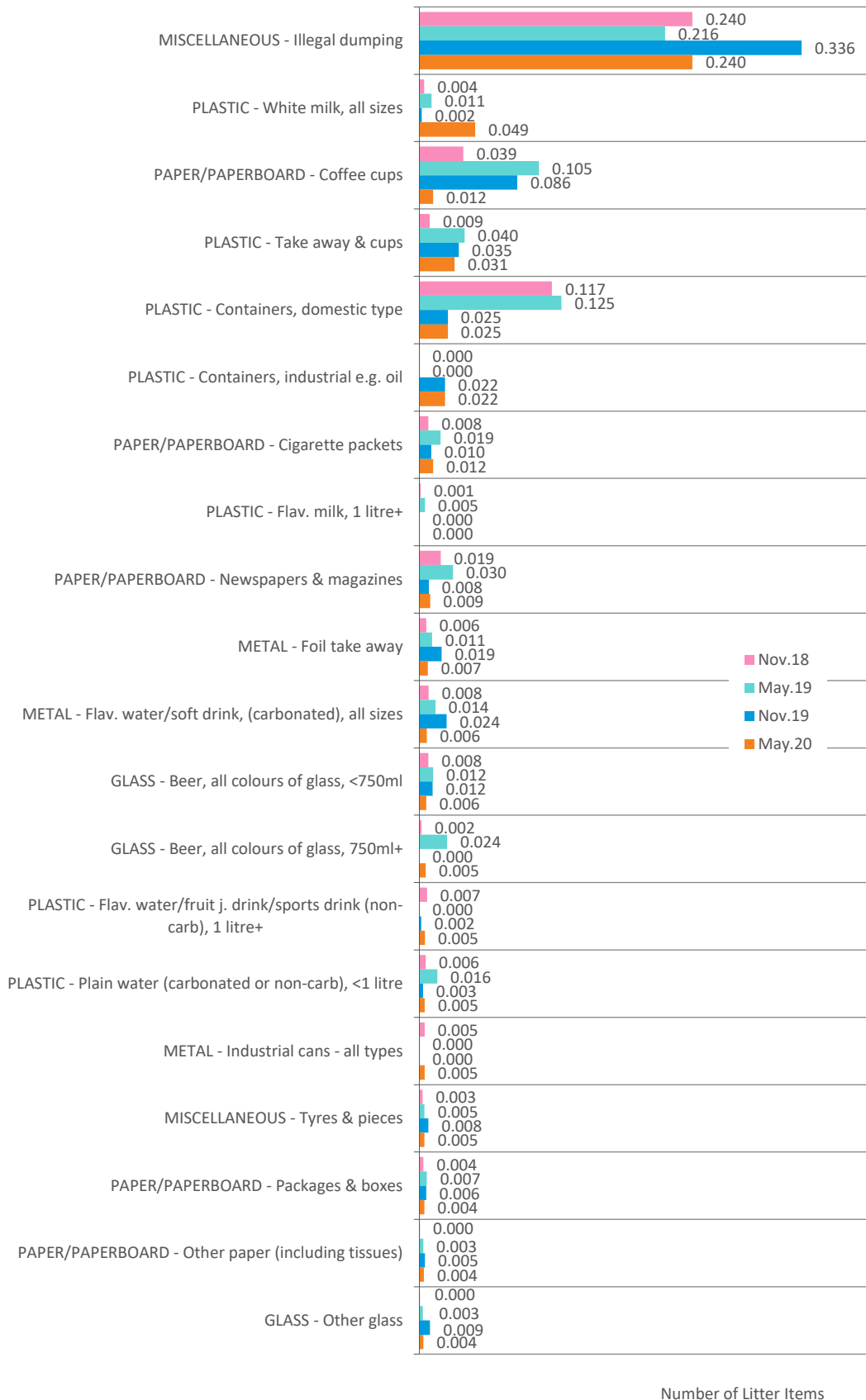


Top 20 Litter Items - Highest Counts - Weighted

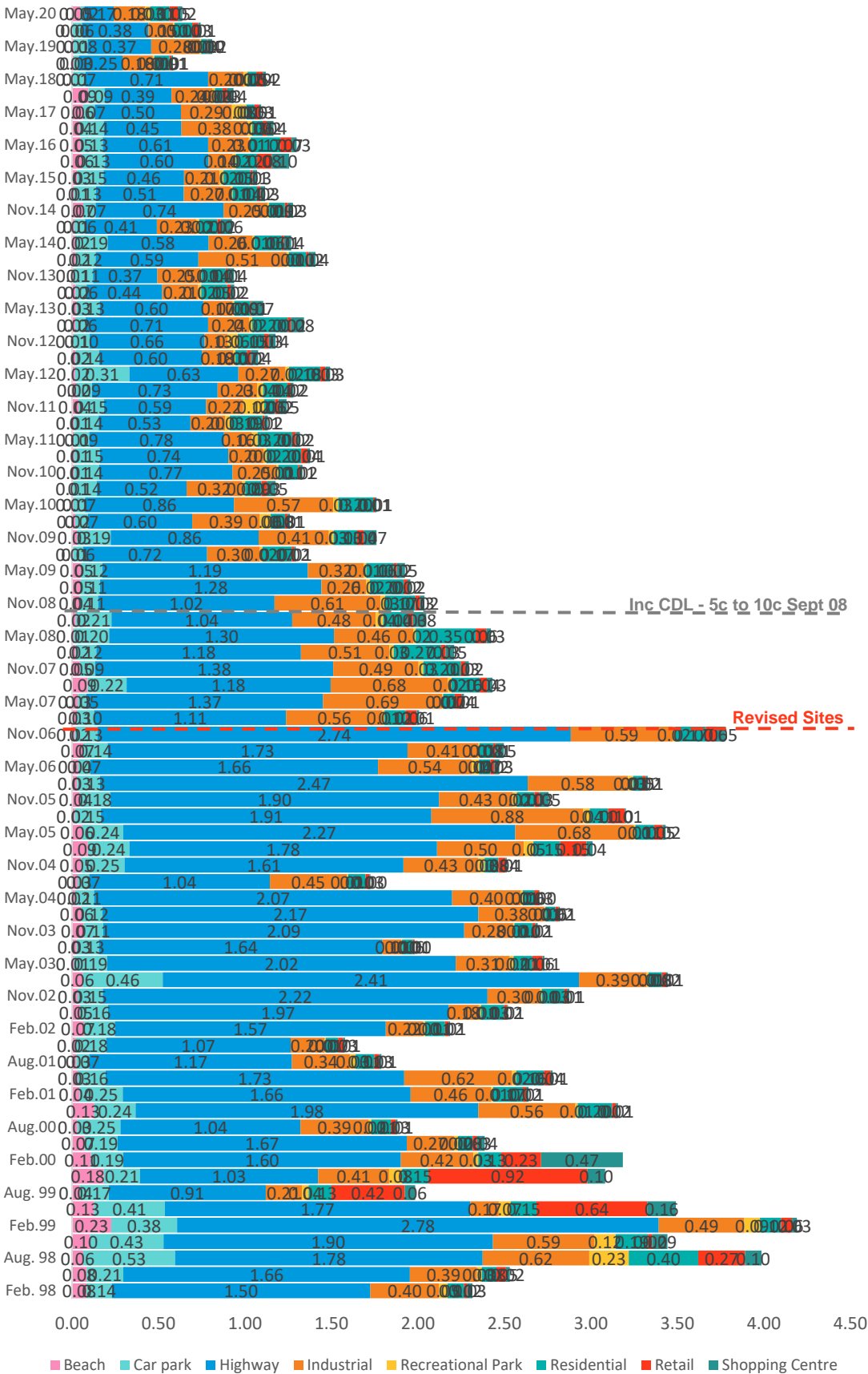


# Unweighted Tracking Graphs - Volume

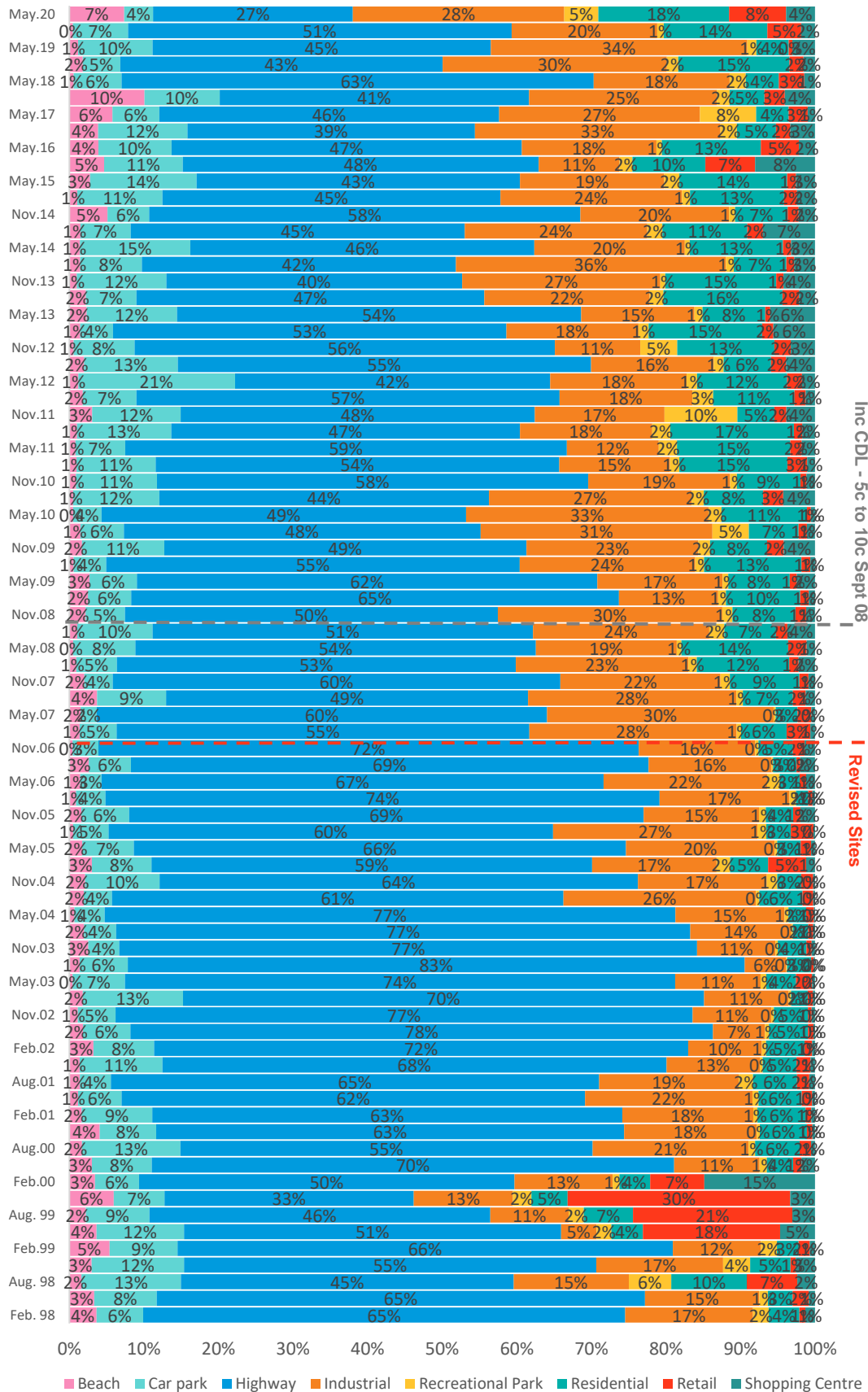
### Top 20 Litter Items by Volume



Volume of Litter by Site Type

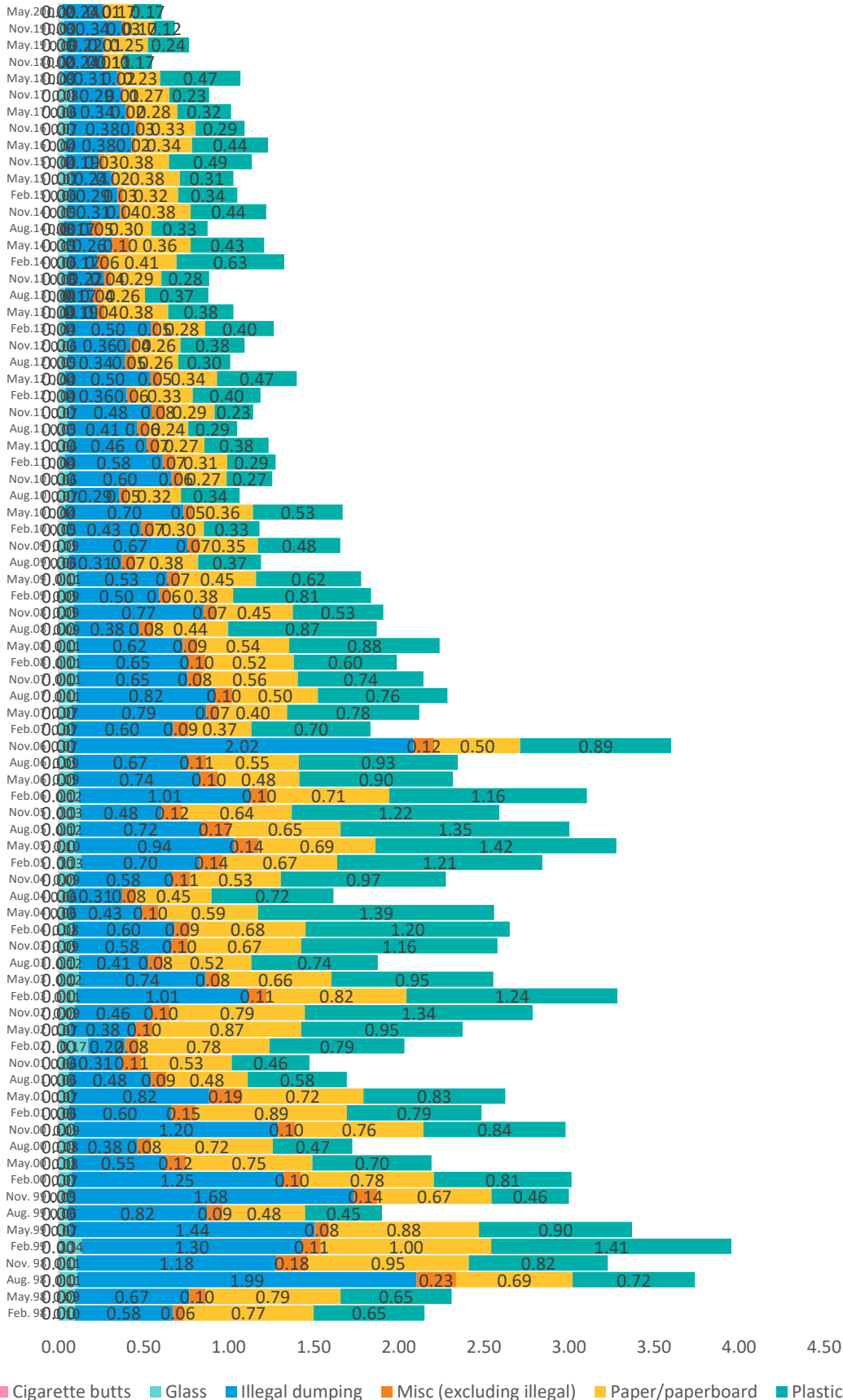


Proportion of Litter Volume in Total Litter Stream by Site Type



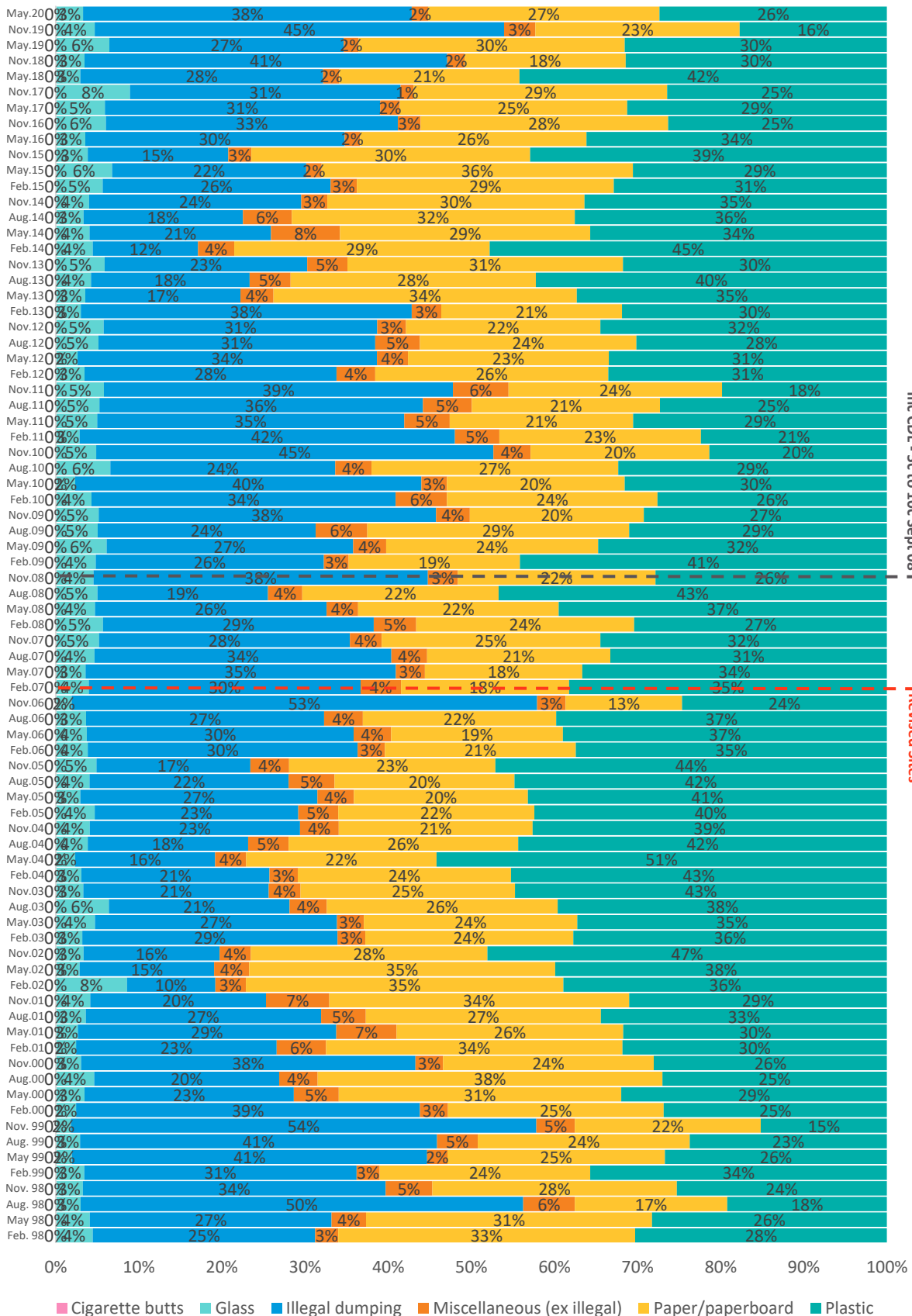


Volume of Litter Items by Material Type

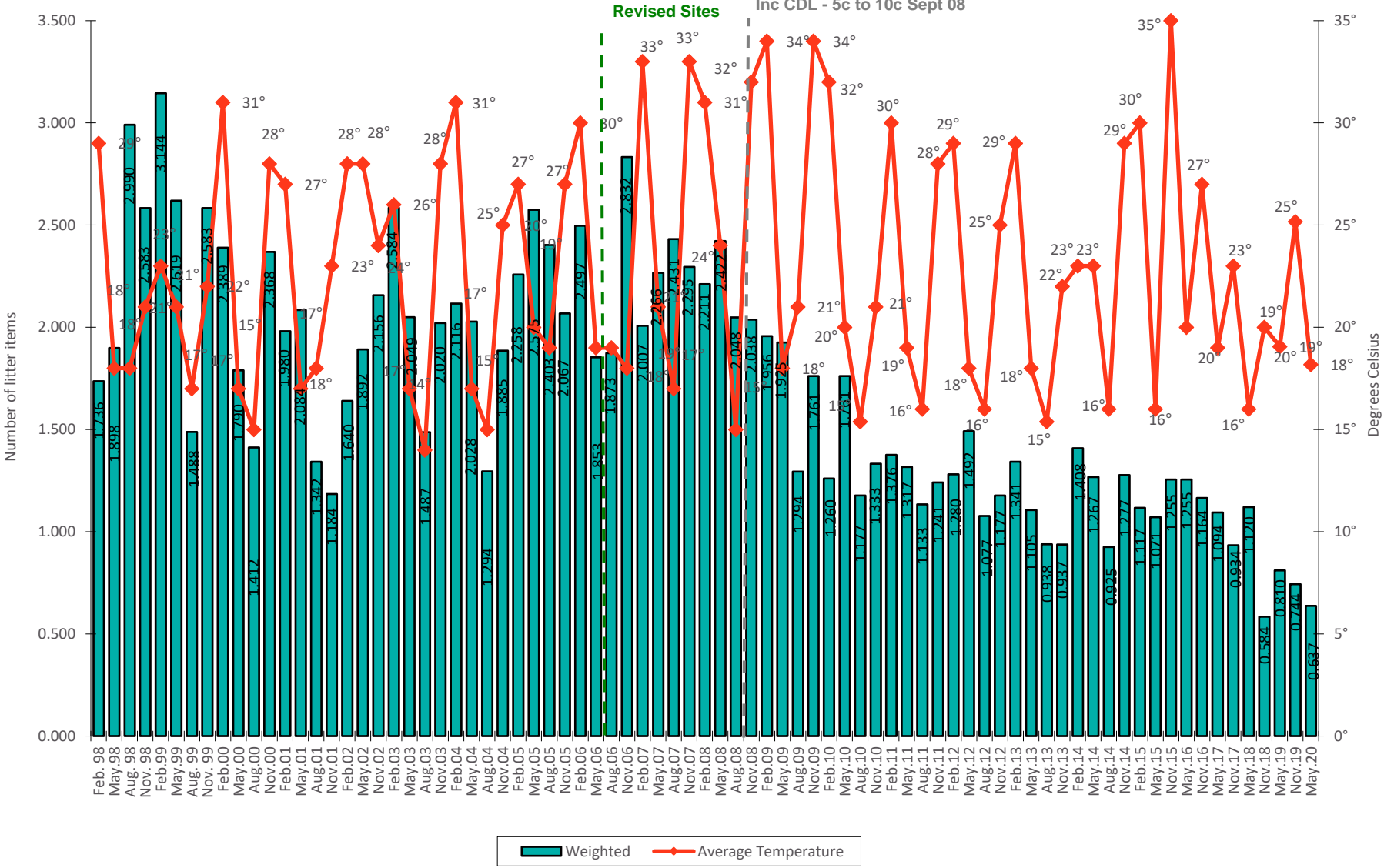


Proportion of Total Litter Volume by Material Type

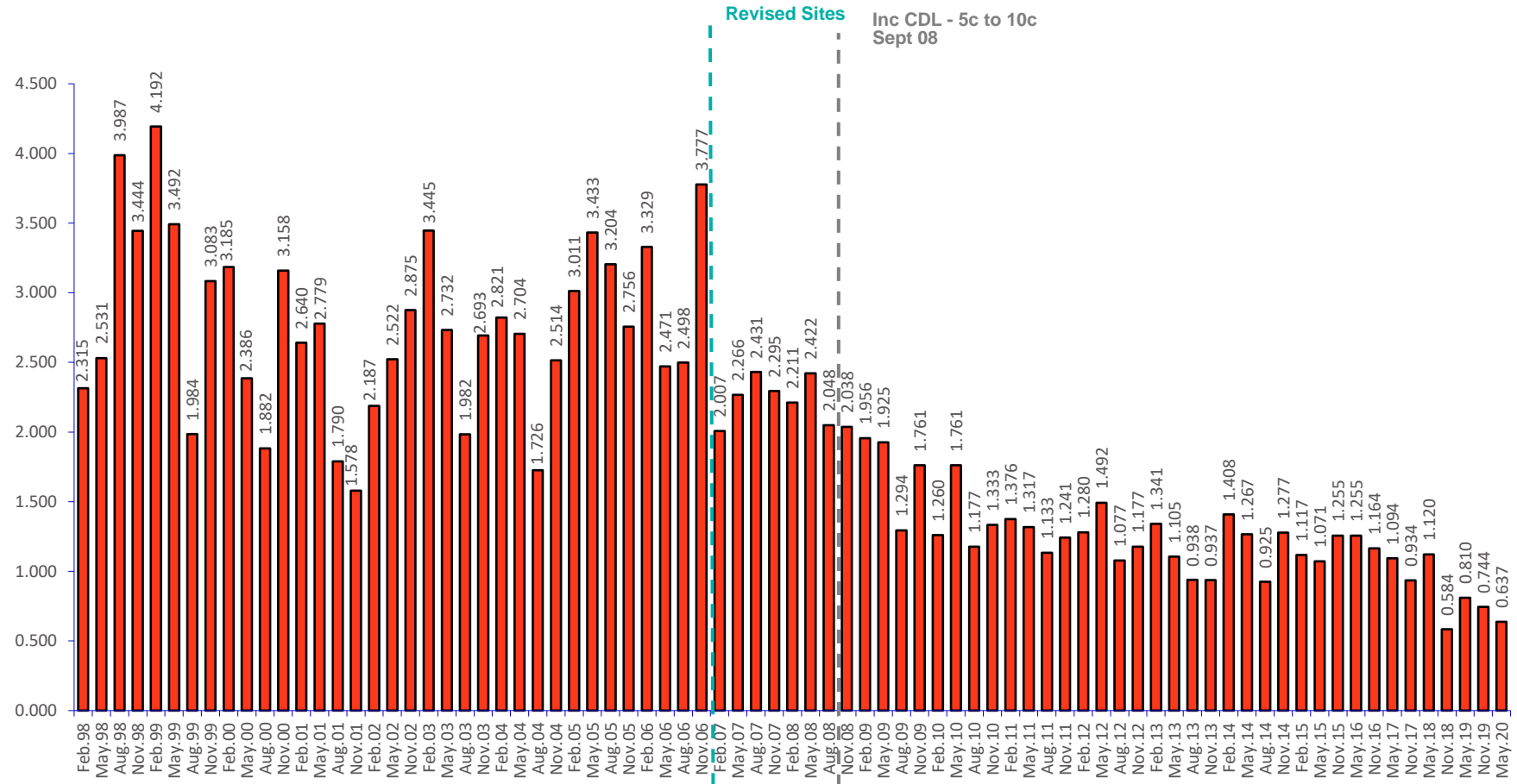
- Please note that cigarette butts are not included as the volumes are consistently negligible -



Weather Temperature and Total Volume of Litter Items

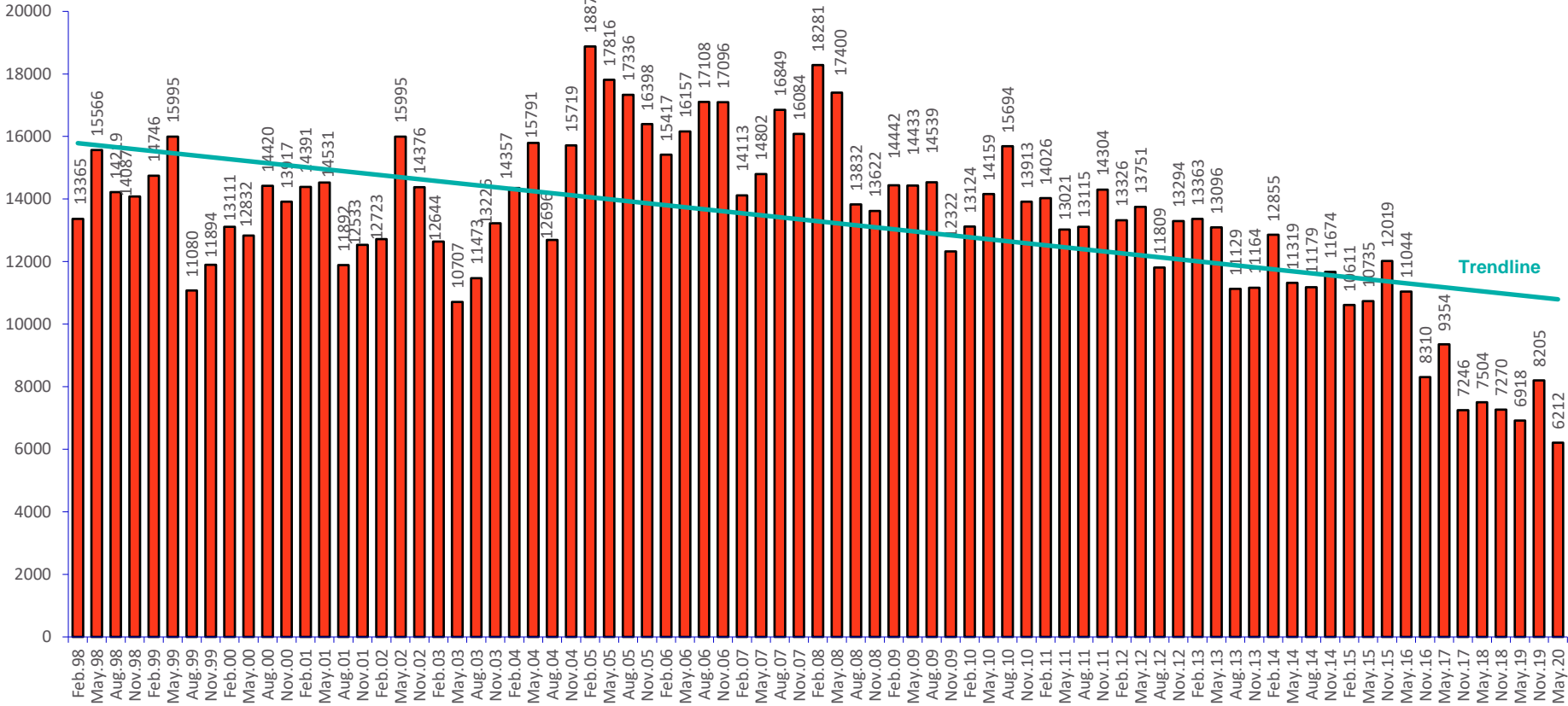


Total Volume (Cubic Metres) of Litter

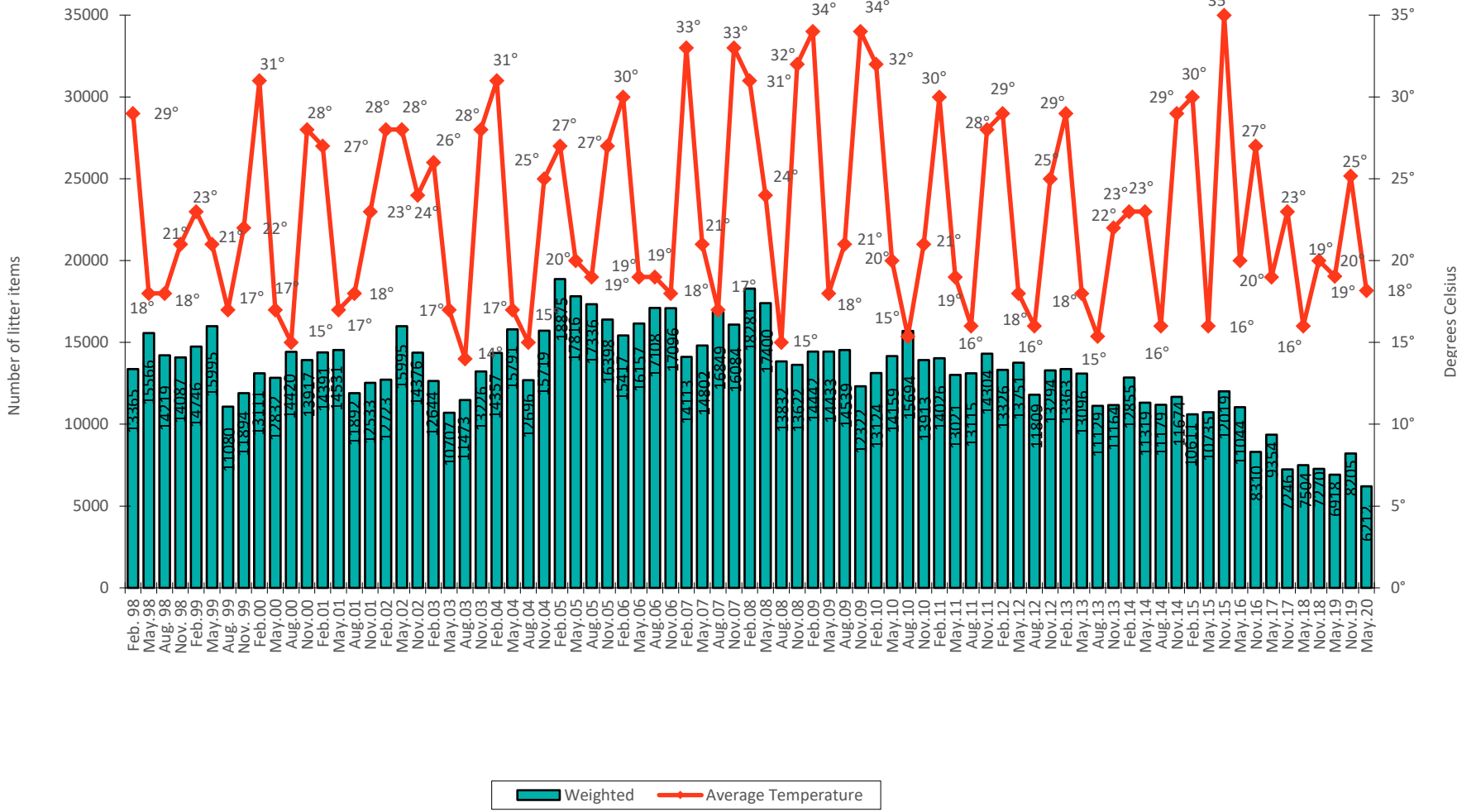


# Weighted Tracking Graphs - Items

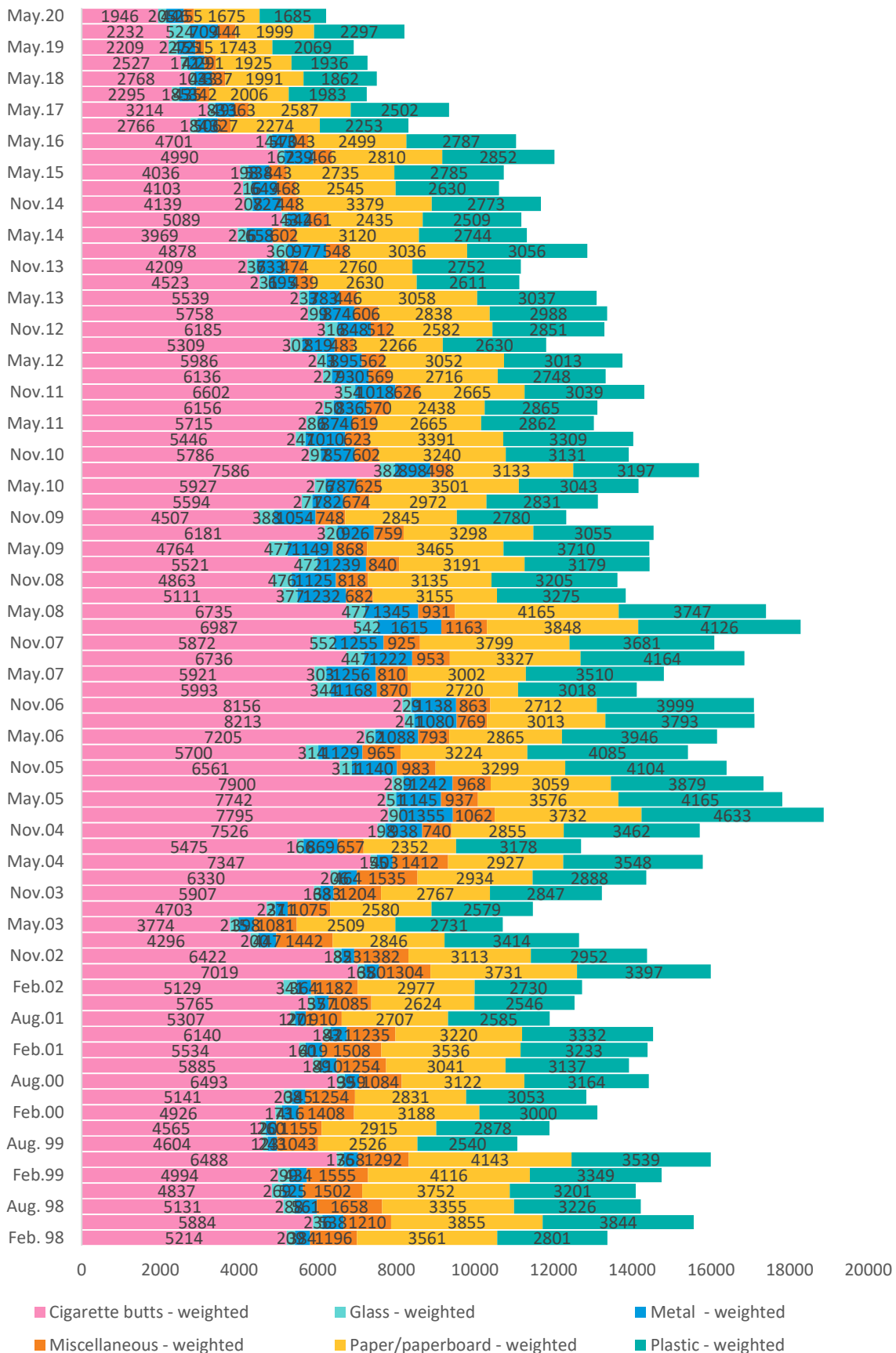
Total Litter - Number of Items - Weighted



Weather Temperature and Total Number of Litter Items - Weighted

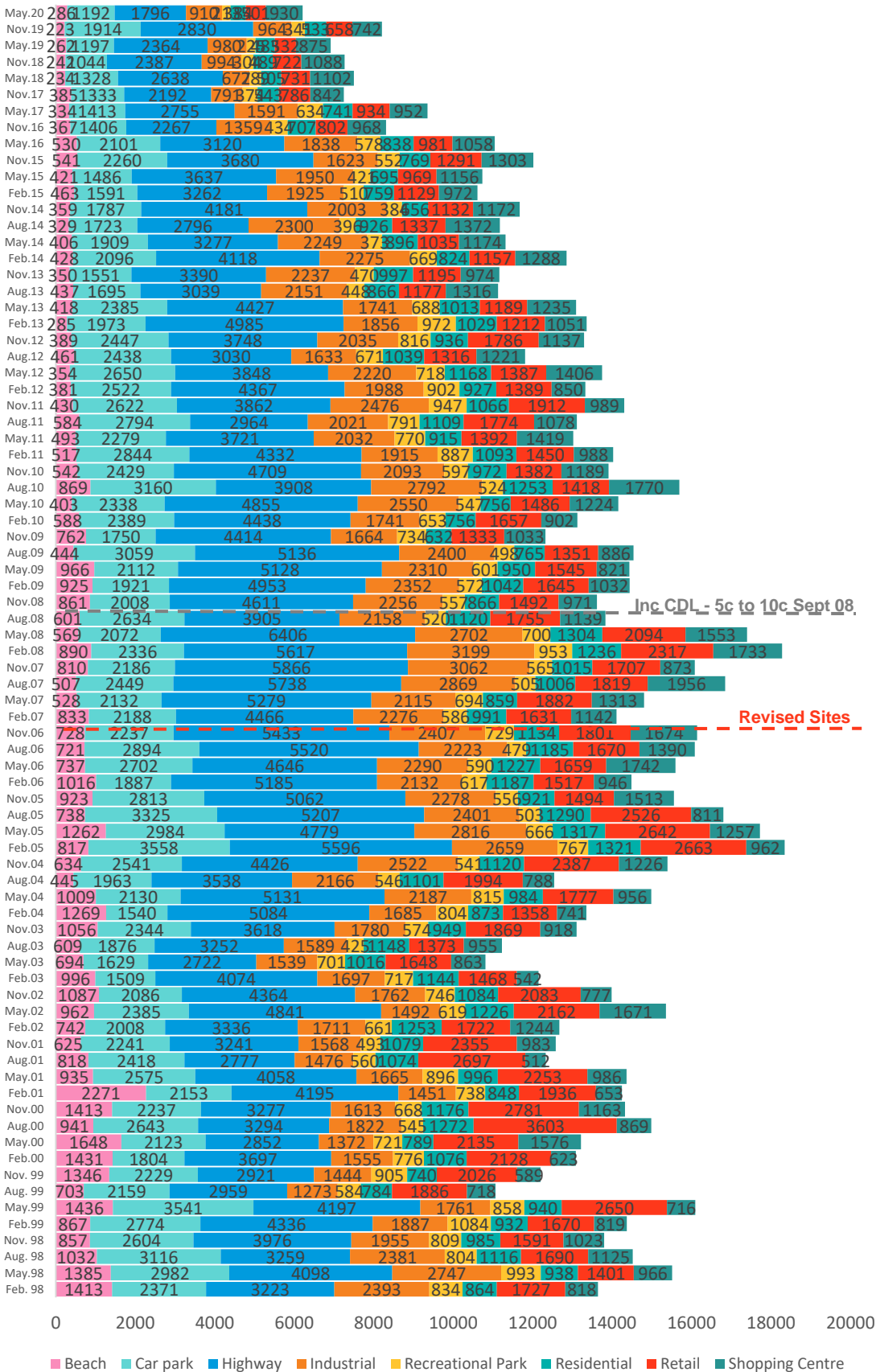


Number of Litter Items by Material Type - Weighted

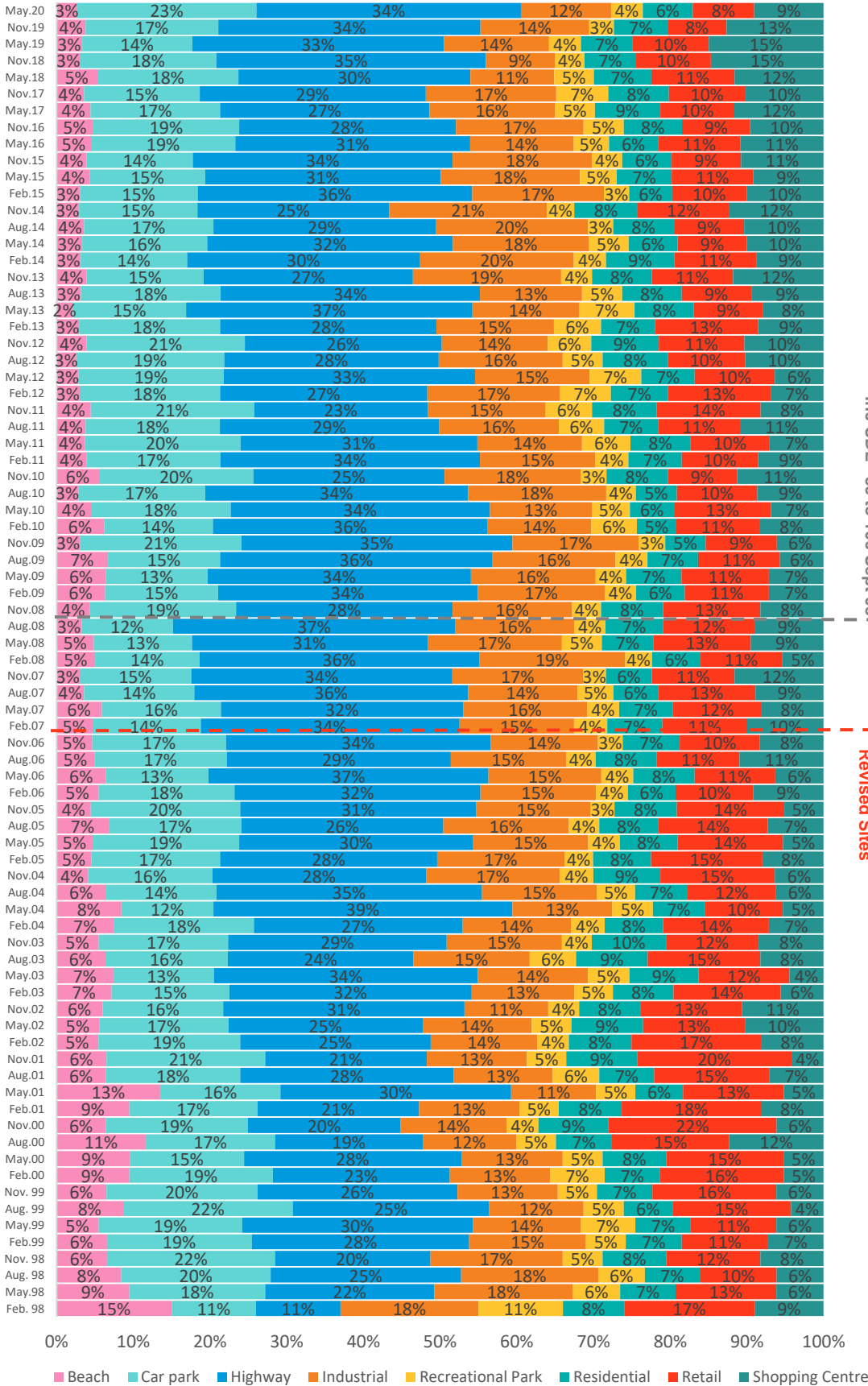


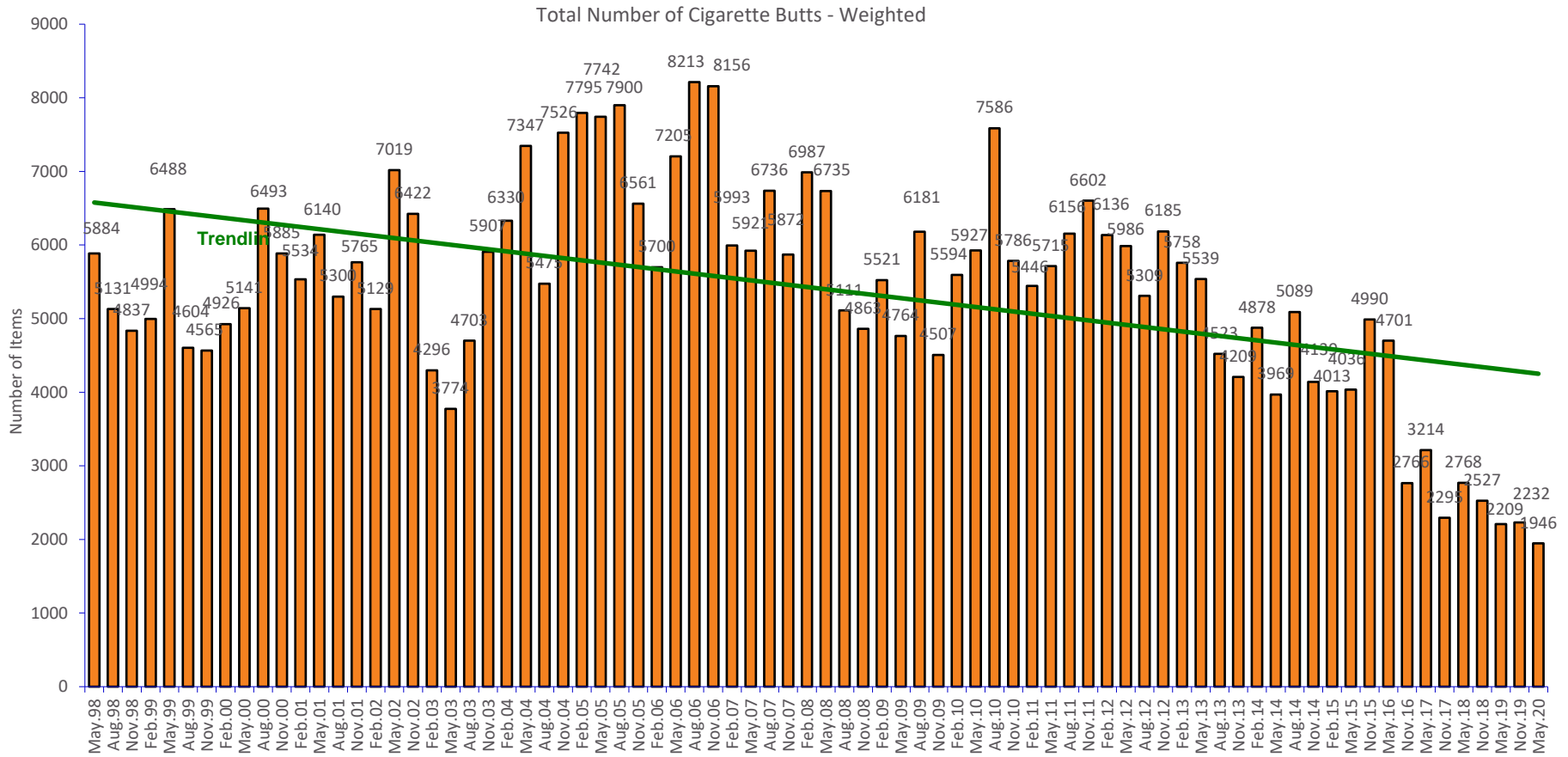


Number of Litter Items by Site Type - Weighted

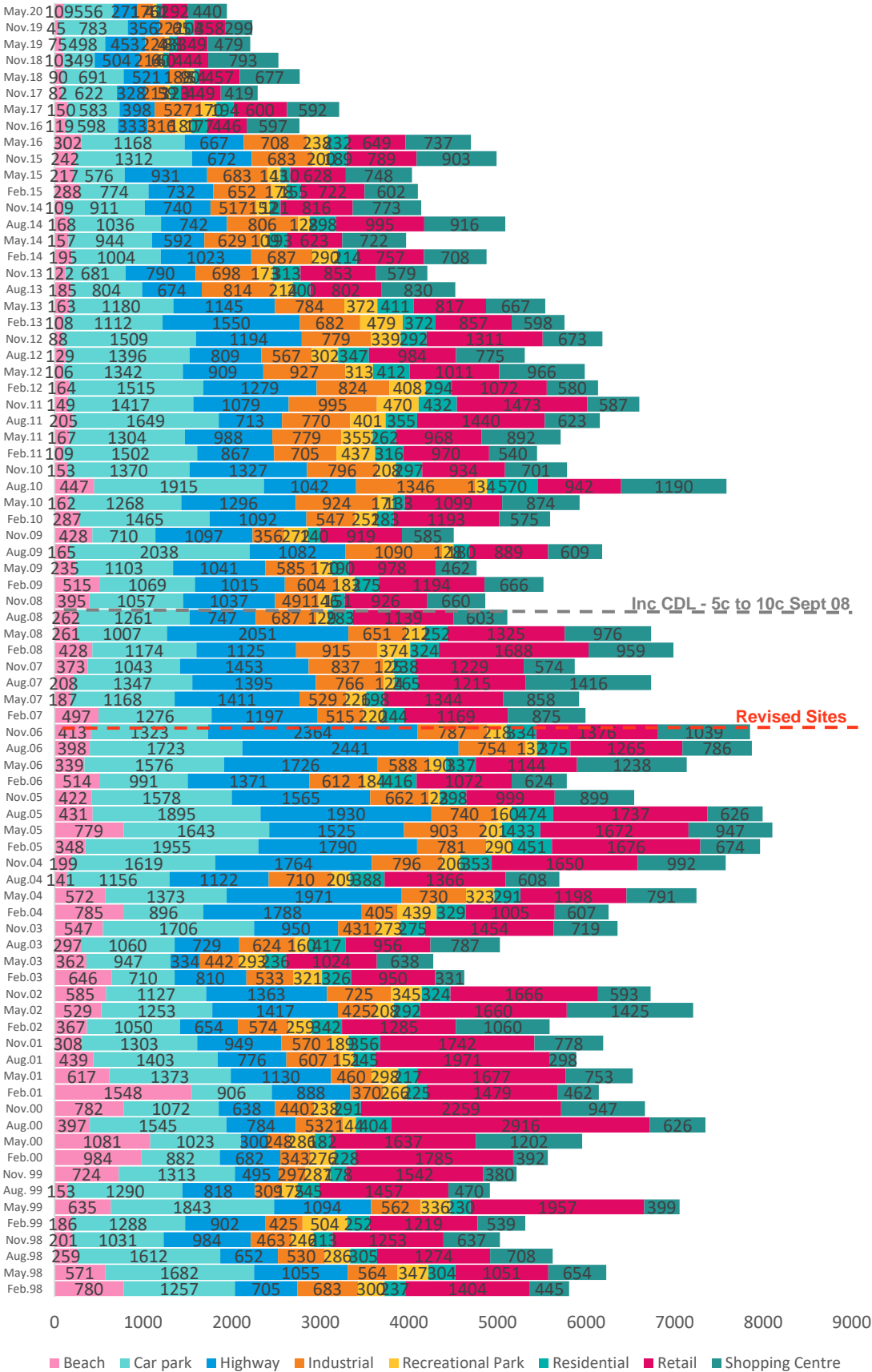


Proportion of Total Litter by Site Type - Weighted

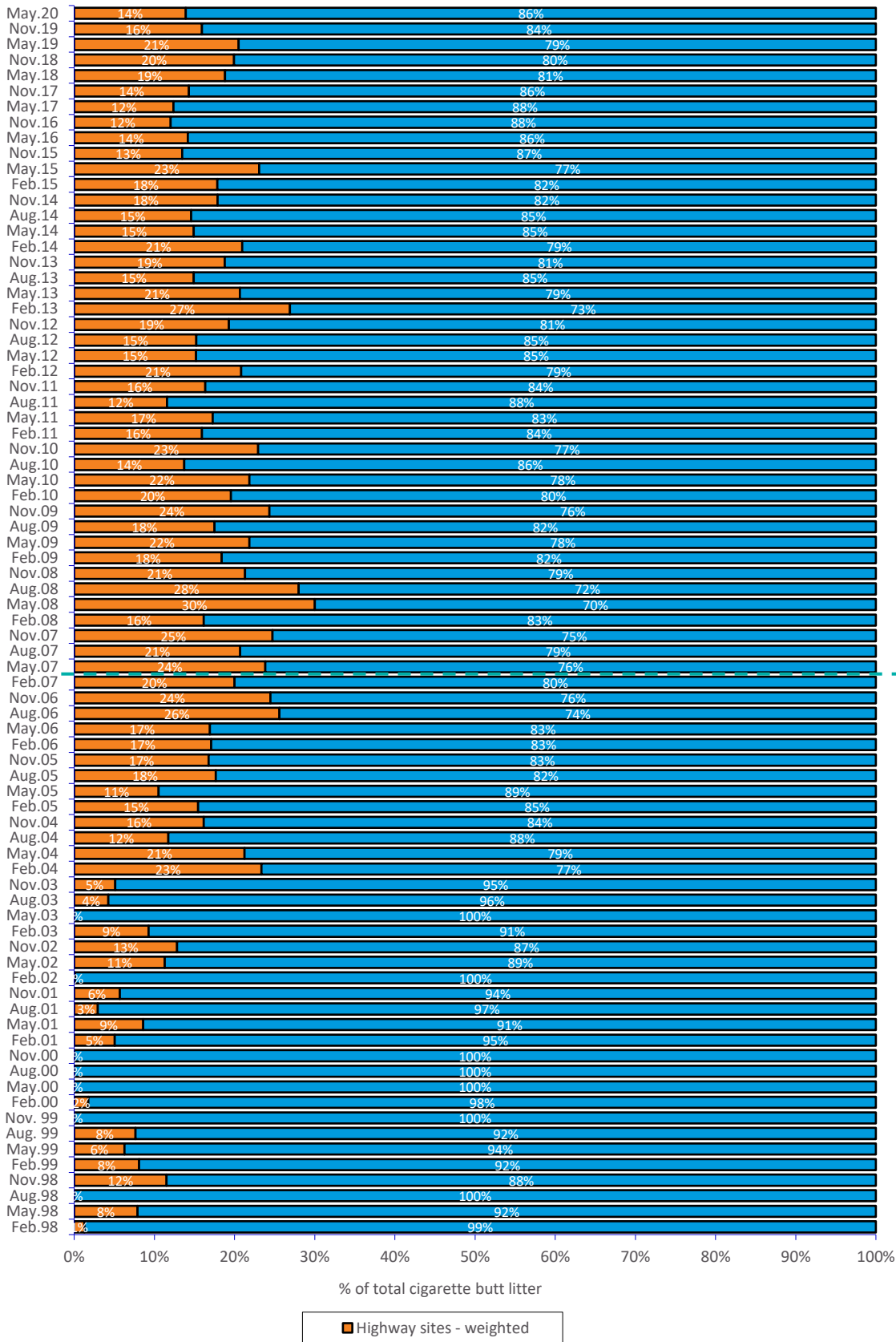




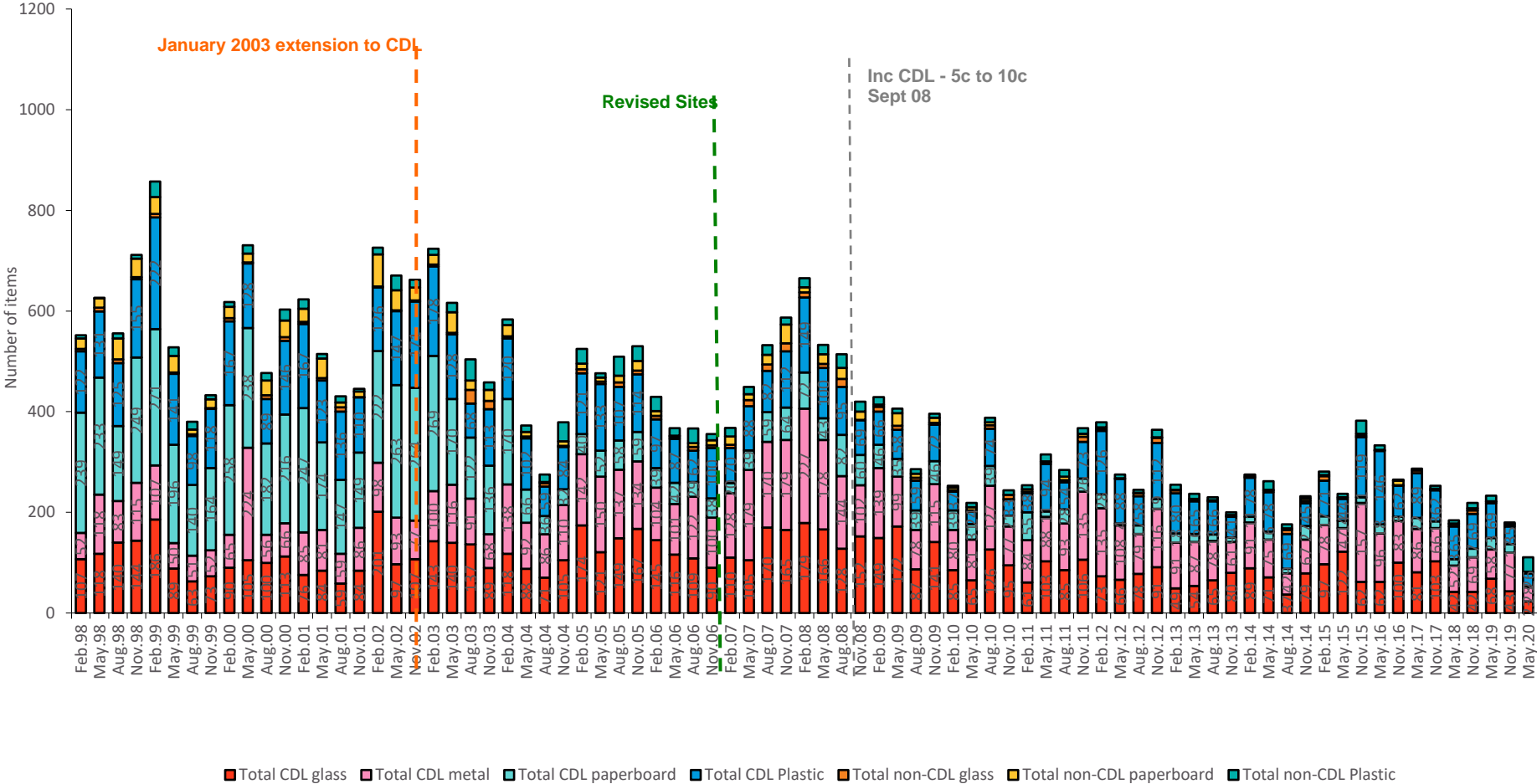
Number of Cigarette Butts by Site Type - Weighted



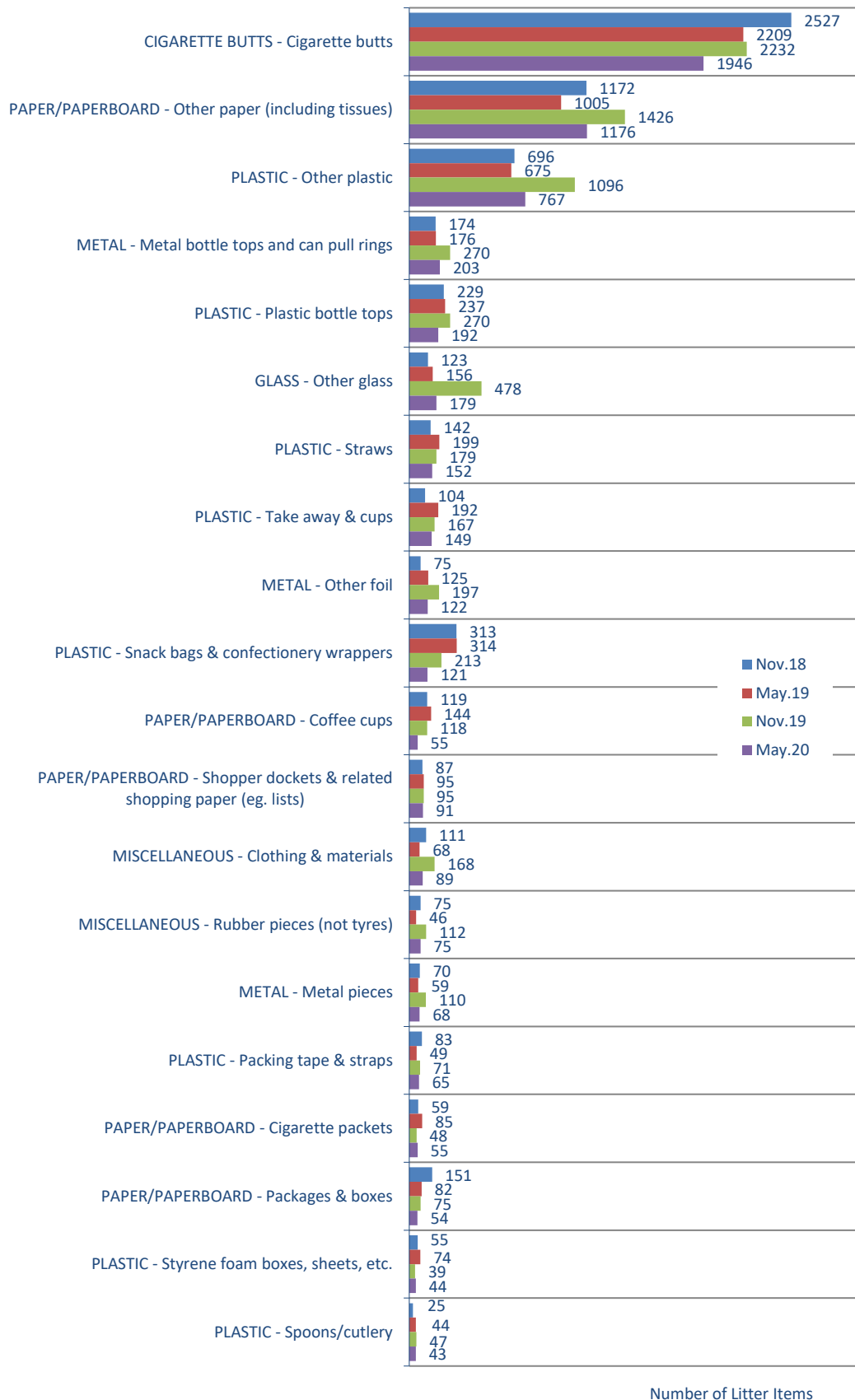
Proportion of Total Cigarette Butt Litter at Highway sites & Other sites - Weighted



CDL and Non-CDL Beverage Items Within Material Categories - Weighted



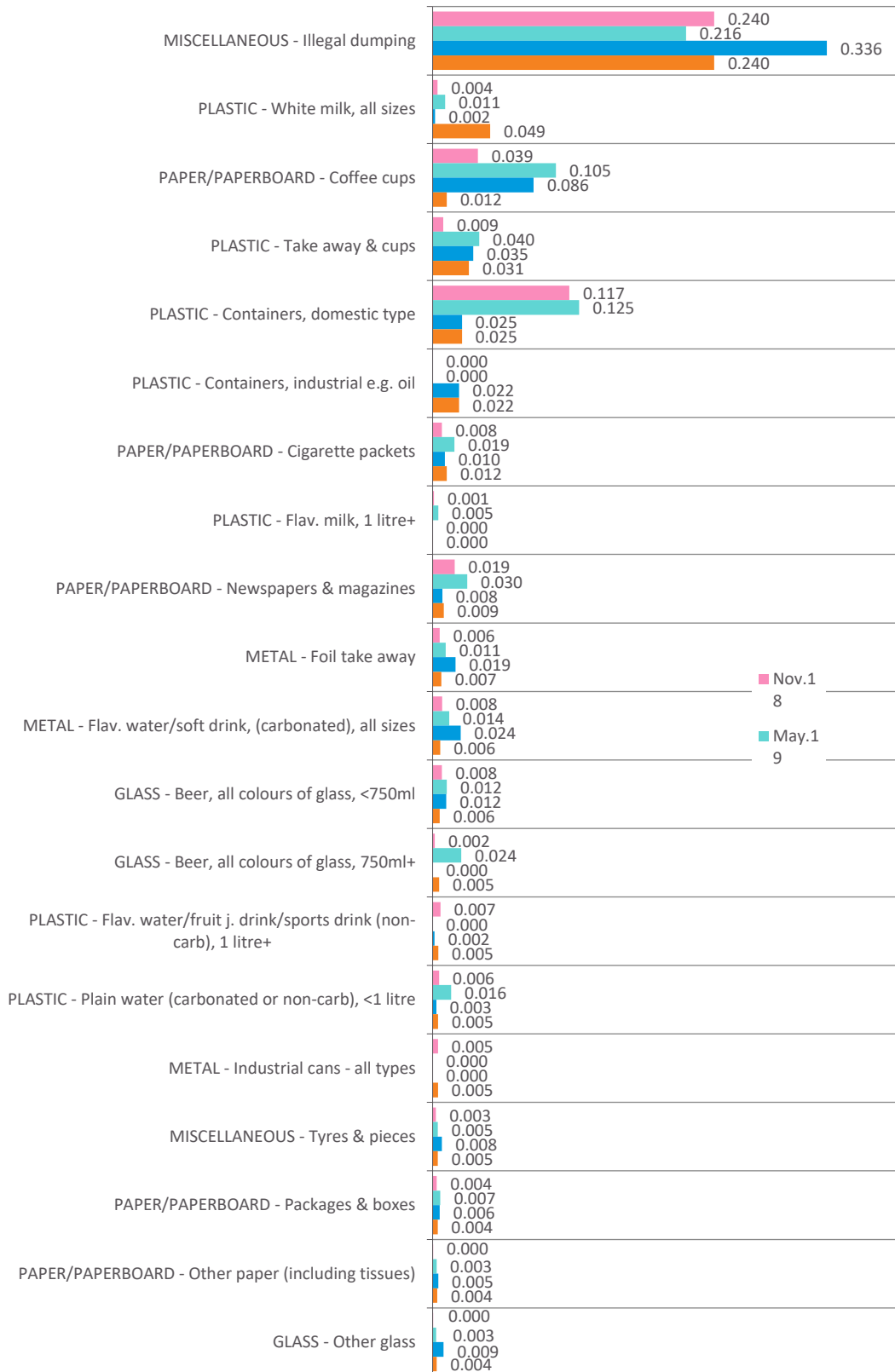
### Top 20 Litter Items - Highest Counts - Weighted



# Weighted Tracking Graphs - Volumes

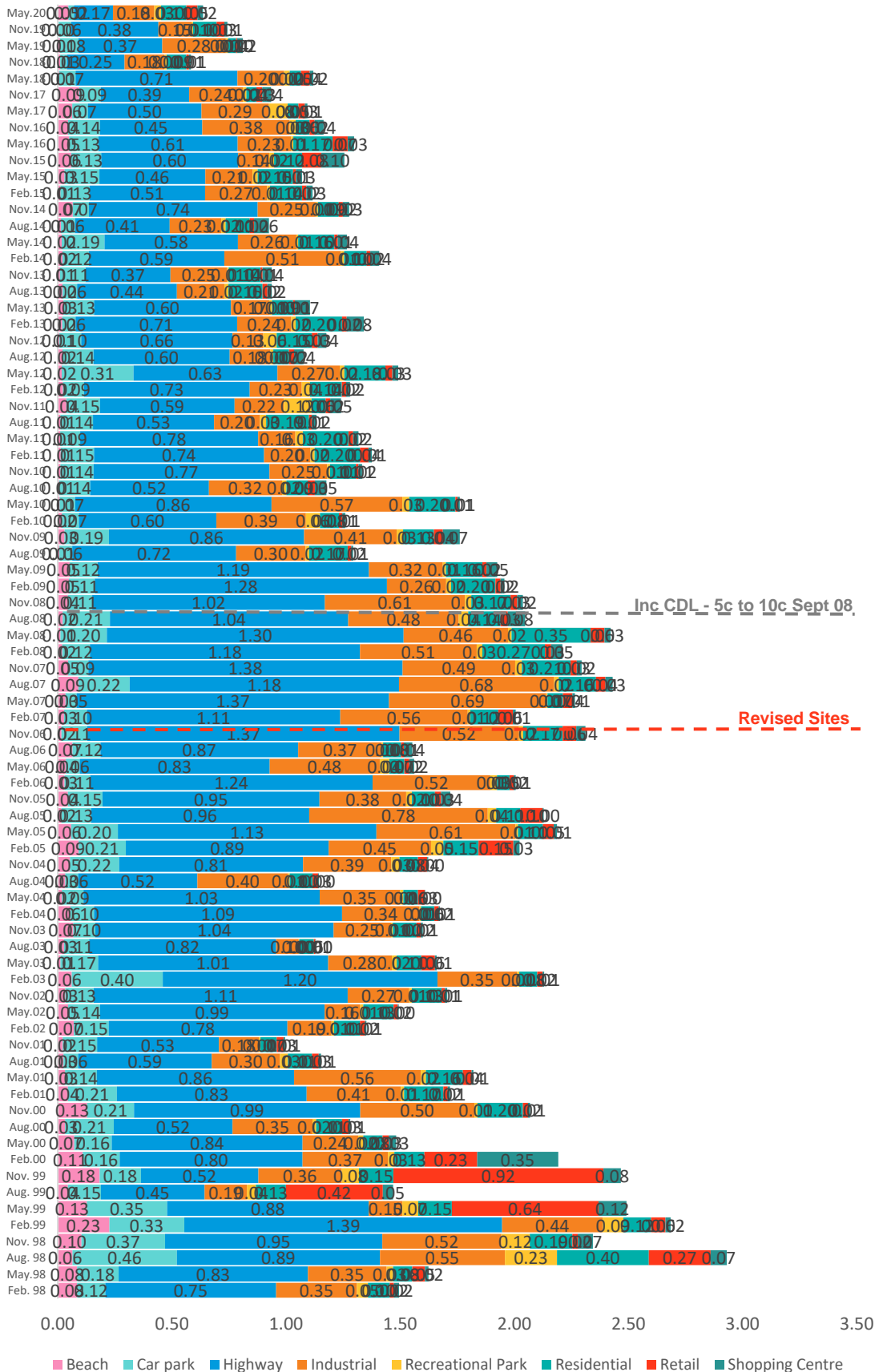


Top 20 Litter Items by Volume - Weighted

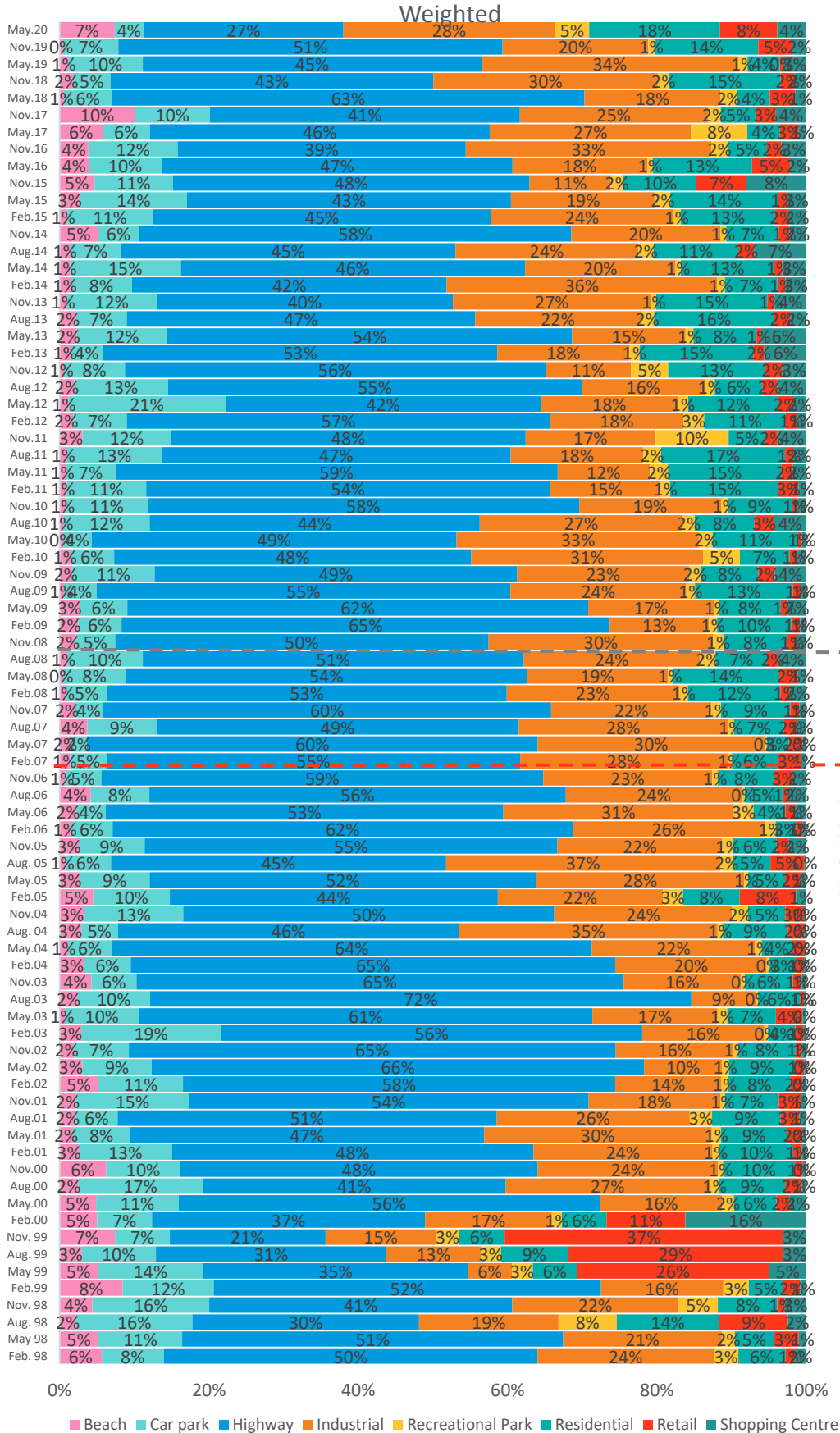


Number of Litter Items

Volume of litter by Site Type - Weighted



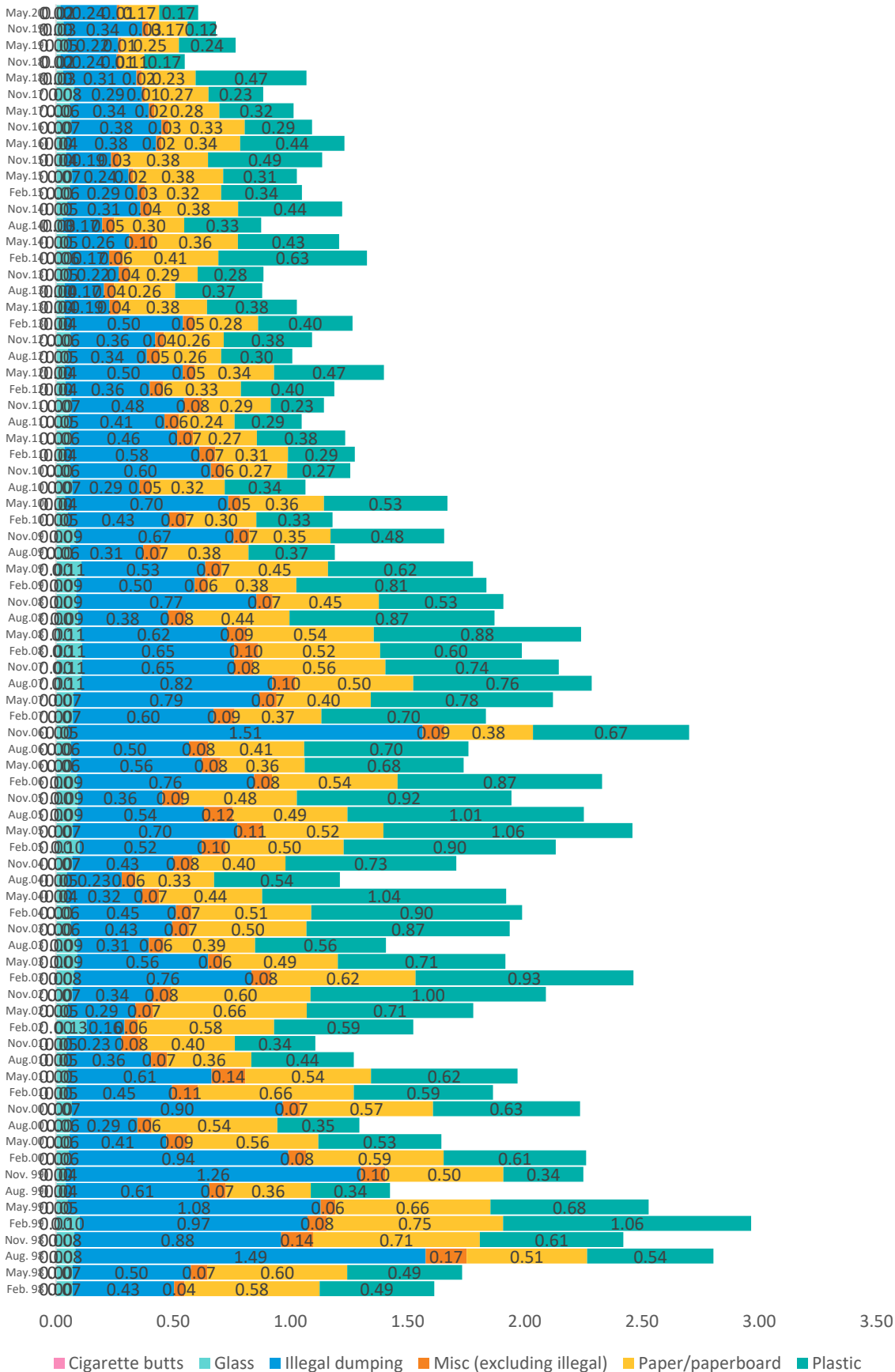
Proportion of Litter Volume in Total Litter Stream by Site Type -



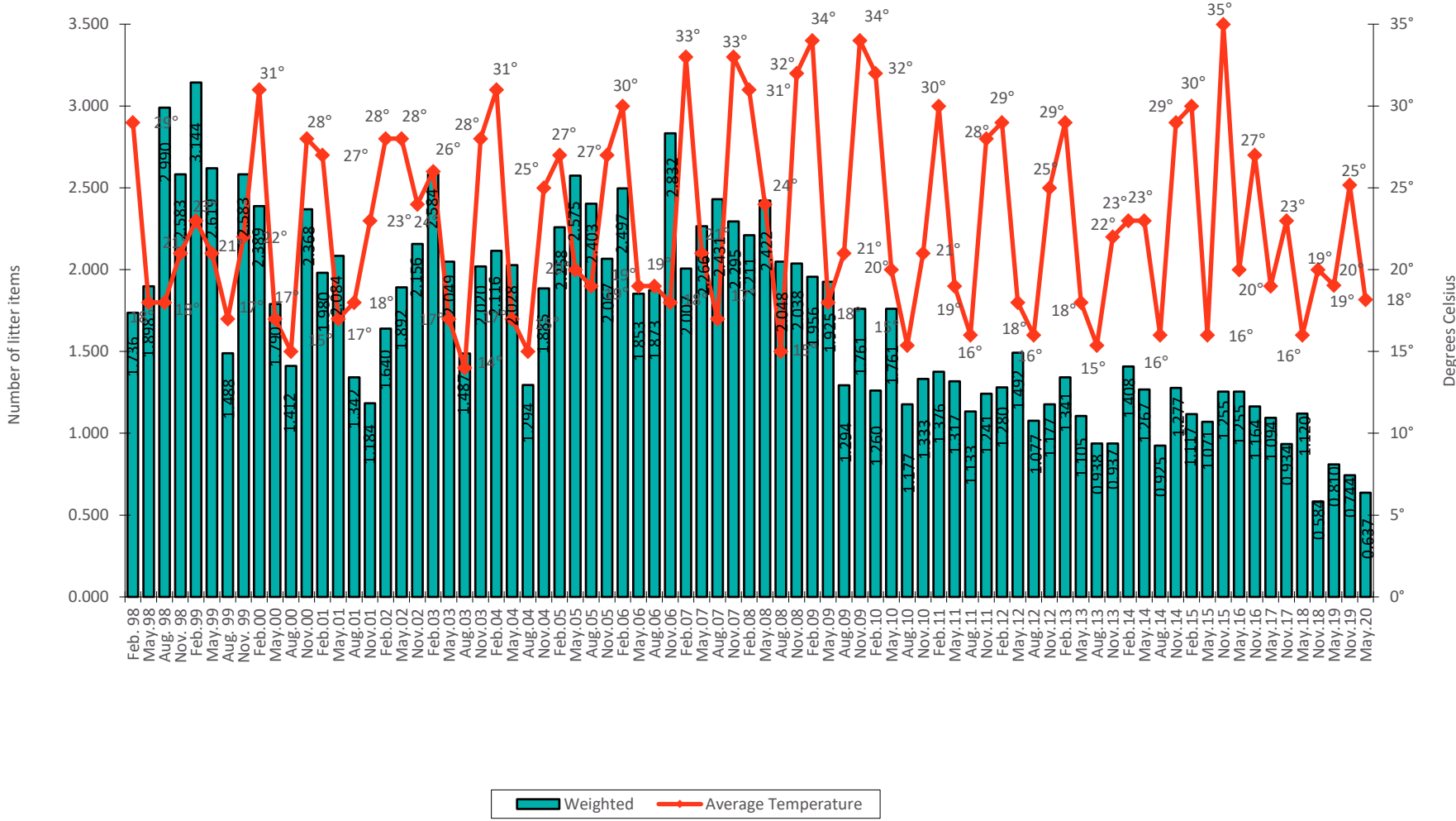
Inc CDL - 5c to 10c Sept 08

Revised Sites

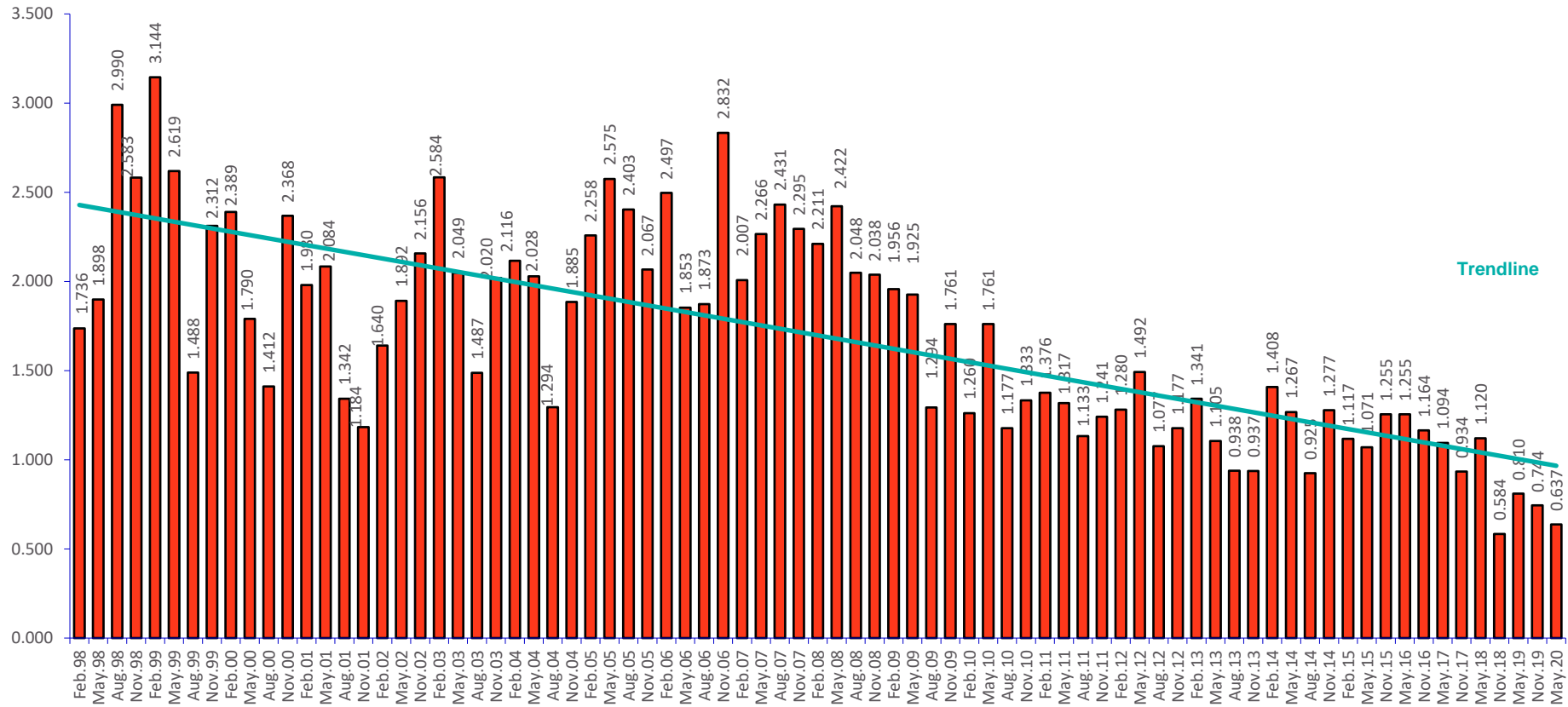
Volume of Litter Items by Material Type - Weighted



Weather Temperature and Total Volume of Litter Items- Weighted



Total Volume (Cubic Metres) of Litter - Weighted



# **Appendix 2: Data Collection Form**

## KESAB - LITTER COUNT COVER SHEET

SITE CODE:

PLEASE ENSURE THAT A COPY OF THIS COVER SHEET IS FILLED OUT AND ATTACHED TO THE COMPLETED LITTER COUNT FORM FOR EVERY SITE.

Date of count: \_\_\_/\_\_\_/\_\_\_ Site description: \_\_\_\_\_

Site responsible person: \_\_\_\_\_

Wet? (Y/N)  Windy? (Y/N)  Temp? °C

### Conditions: (Circle appropriate numbers)

1. Area appeared to be cleaned before count.
2. Area was mowed before count causing proliferation
3. Very recent storm/flood damage litter build-up
4. Very recent or current high winds causing build-up
5. Recent public event held in area – **specify:** \_\_\_\_\_
6. Uncovered load spilled in area causing litter

### Please record number and type of bins in site area

No. of litter bins: \_\_\_\_\_

No. of butt bins: \_\_\_\_\_

No. and type of other bins: \_\_\_\_\_

### Illegal dumping incidents (Xc)

No. of Illegal dumpings: .....

Illegal dumpings description: .....  
.....

### Plastic Domestic Containers (Pm)

No. of incidents: .....

Description: .....  
.....

### Plastic Industrial Containers (PI)

No. of incidents: .....

Messages: .....  
.....

### Litter Signage

No. of signs.....

Messages: .....  
.....

### Graffiti

None

Medium (2m<sup>2</sup> to 10m<sup>2</sup>)

Low (less than 2m<sup>2</sup>)

High (more than 10m<sup>2</sup>)

(REF: 10705)



SITE CODE:		SITE RESPONSIBLE PERSON:			DATE:						
Item Type		Brand	Work Area	Total	Item Type		Brand	Work Area	Total		
<b>GLASS</b>	Ga	Plain water (carbonated or non-carb.), 1 litre+	NONE		<b>METAL</b>	Ma	Beer, aluminium, all types, all sizes	NONE			
	Gb	Plain water (carbonated or non-carb.), <1 litre	NONE			Mb	Alcoholic sodas & spirit-based mixers	NONE			
	Gc	Flavoured water/soft drink (carbonated) 1 litre+	NONE			Mc	Cider/fruit based etc.	NONE			
	Gd	Flavoured water/soft drink (carbonated) <1 litre	NONE			Md	Water, carbonated & flavoured/soft drink	NONE			
	Ge	Flav. water / fruit juice drink/ sports drink, (non carb), 1 litre+	NONE			Me	Water, non-carbonated & flavoured, all sizes	NONE			
	Gf	Flav. water / fruit juice drink/ sports drink, (non carb), <1 litre	NONE			Mf	Food cans (including pet food)	NONE			
	Gg	Fruit juice, 1 litre or more	NONE			Mg	Industrial cans - all types	NONE			
	Gh	Fruit juice, < 1 litre	NONE			Mh	Aerosols - pressure packs	NONE			
	Gi	Wine cooler, all sizes	NONE			Mi	Metal bottle tops and can pull rings	NONE			
	Gj	Alcoholic sodas / spirit-based mixers, all sizes	NONE			Mj	Metal pieces	NONE			
	Gk	Cider/fruit based etc.	NONE			Mk	Foil take away	NONE			
	Gl	Wine & spirit, all sizes	NONE			Ml	Other foil	NONE			
	Gm	Beer, 750ml or more, all colours of glass	NONE			<b>MISCELLANEOUS</b>	Xa	Tyres & pieces	NONE		
	Gn	Beer, < 750ml, all colours of glass	NONE				Xb	Clothing & materials	NONE		
	Go	Other glass	NONE				Xc	Illegal dumping	NONE		
	<b>CIGARETTE BUTTS</b>							Xd	Syringes - Do Not Touch	NONE	
								Xe	Ice creamsticks	NONE	
								Xf	Rubber pieces (not tyres)	NONE	
								Xg	Condoms	NONE	
								Xh	Construction materials	NONE	
					Xi		Disposable nappies	NONE			
					OTHER MISC -(Please specify item types and brands below)						
					Xj						

PAPER / PAPERBOARD					PLASTIC				
Item Type	Brand	Work Area	Total	Item Type	Brand	Work Area	Total		
<b>Ka</b> Packages & boxes	NONE			<b>Pt</b> Plain water (carbonated or non-carb), 1 litre+	NONE				
<b>Kb</b> Cigarette packets	NONE			<b>Pg</b> Plain water (carbonated or non-carb), <1 litre	NONE				
<b>Kc</b> Cartons, milk, plain (white), all sizes	NONE			<b>Ph</b> Flav. water/soft drink (carbonated) 1 litre+	NONE				
<b>Kd</b> Cartons, flavoured milk, 1 litre+	NONE			<b>Pi</b> Flav. water/soft drink (carbonated) <1 litre	NONE				
<b>Ke</b> Cartons, flavoured milk, <1 litre	NONE			<b>Pj</b> Flav. water/fruit juice drinks, sports drinks etc. (non-carb), 1 litre+	NONE				
<b>Kf</b> Cartons, flav. water/fruit juice drink/sports drink, (non-carb), 1 litre+	NONE			<b>Pk</b> Flav. water/fruit juice drinks, sports drinks etc. (non-carb), <1 litre	NONE				
<b>Kg</b> Cartons, flav. water/fruit juice drink/sports drink, (non-carb), <1 litre	NONE			<b>Pl</b> Containers, industrial e.g. oil	NONE				
<b>Kh</b> Cartons, fruit juice, 1 litre+	NONE			<b>Pm</b> Containers, domestic type	NONE				
<b>Ki</b> Cartons, fruit juice, <1 litre	NONE			<b>Pn</b> Bags – light weight plastic shopping type carry bags	NONE				
<b>Kj</b> Newspapers & magazines	NONE			<b>Po</b> Bags – heavier glossy typically branded carry bags	NONE				
<b>Kk</b> Junk mail / free circulars	NONE			<b>Pp</b> Sacks – sheeting – other bags	NONE				
<b>Kl</b> Coffee cups	NONE			<b>Pq</b> Wine cask bladders	NONE				
<b>Kr</b> Other cups/take away containers	NONE			<b>Pr</b> Straws	NONE				
<b>Km</b> Tickets, e.g. bus, ATM, vending machine etc.	NONE			<b>Ps</b> 6 ring can holders	NONE				
<b>Kn</b> Ice cream wrappers	NONE			<b>Pt</b> Snack bags & confectionery wrappers	NONE				
<b>Ko</b> Paper bags	NONE			<b>Pu</b> Styrene foam boxes, sheets, etc.	NONE				
<b>Kp</b> Shopper docket & related shopping paper (eg, lists)	NONE			<b>Pv</b> Packing tape & straps	NONE				
<b>Kq</b> Other paper (including tissues)	NONE			<b>Pw</b> Take away & cups	NONE				
<b>Pa</b> White milk, all sizes	NONE			<b>Px</b> Plastic bottle tops	NONE				
<b>Pb</b> Flavoured milk, 1 litre+	NONE			<b>Py</b> Bread bag tags	NONE				
<b>Pc</b> Flavoured milk, <1 litre	NONE			<b>Pz</b> Lollipop sticks	NONE				
<b>Pd</b> Fruit juice, 1 litre+	NONE			<b>P1</b> Spoons/cutlery	NONE				
<b>Pe</b> Fruit juice, <1 litre	NONE			<b>P2</b> Drink pouches	NONE				
	NONE			<b>P3</b> Other plastic	NONE				