

**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 76 – November 2018  
Report**

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Prepared for: John Phillips

On behalf of: KESAB Environmental Solutions

Project No: 10705

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## Contents

<b>Section 1 Introduction.....</b>	<b>1</b>
Background.....	2
<b>Section 2 Wave 75 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.....	28
<b>Data Summary - Items.....</b>	<b>29</b>
<b>Data Summary - Volumes.....</b>	<b>33</b>
<b>Appendix 1: Tracking Graphs.....</b>	<b>37</b>
<b>Unweighted Tracking Graphs - Items.....</b>	<b>43</b>
<b>Unweighted Tracking Graphs - Volume.....</b>	<b>58</b>
<b>Weighted Tracking Graphs - Items.....</b>	<b>66</b>
<b>Weighted Tracking Graphs - Volumes.....</b>	<b>77</b>
<b>Appendix 2: Data Collection Form.....</b>	<b>84</b>

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

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# **Section 1**

## **Introduction**

- 1.1 This document has been prepared by McGregor Tan Research to report on Wave 74 of the quarterly KESAB Litter Monitor. Surveys for the current wave were conducted in South Australia during November 2018.

## **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 was continued throughout 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 and is planned to continue.
- 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 76 of the longitudinal study. The litter count was conducted during November 2018. 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 76**

### **Executive Summary**

The following Executive Summary covers the findings of the November 2018 KESAB Litter Monitor (Wave 76). Where possible, results have been tracked against those derived from any previous Waves which incorporated revised sites. All 151 sites were counted during the November 2018 count.

## **Items Counted**

A total of 7,270 litter items were counted across the 151 South Australian sites during Wave 76. This figure is lower than the previous monitors in May 2018 (7,504) but just above the monitor conducted in November 2017 (7,246) at the same time last year.

Cigarette butts remained the main contributor (35%) to the litter count with 2,527 butts counted in Wave 76, down from (2,768) in May 2018 but higher than Wave 74 (2,295) in and November 2017 conducted at the same time in the previous year.

The overall increase in number of items counted was most strongly demonstrated by several litter types in Wave 76, including:

- PLASTIC - Other plastic - 696 items, up from 627 items in Wave 75 (11% increase)
- GLASS - Other glass – 123 items, up from 56 items in Wave 75 (120% increase)
- PAPER/PAPERBOARD - Packages & boxes 151 items, up from 97 items in Wave 75 (56% increase)
- PLASTIC - Plastic bottle tops - 229 items, up from 199 items in Wave 75 (15% increase)
- PLASTIC - Styrene foam boxes, sheets, etc. - 55 items, up from 32 items in Wave 75 (72% increase)
- PLASTIC - Snack bags & confectionery wrappers - 313 items, up from 298 items in Wave 75 (5% increase)
- PAPER/PAPERBOARD - Newspapers & magazines - 38 items, up from 24 items in Wave 75 (58% increase)

Litter types that experienced a decrease in the number of items in Wave 76 included:

- CIGARETTE BUTTS - Cigarette butts – 2,527 items, down from 2,768 items (9% decrease)
- MISCELLANEOUS - Other miscellaneous - 28 items, down from 66 items (58% decrease)
- PLASTIC - Take away & cups - 104 items, down from 139 items (25% decrease)
- PAPER/PAPERBOARD - Other paper (including tissues) – 1,172 items, down from 1,202 items (2% decrease)
- PLASTIC - Straws - 142 items, down from 171 items (17% decrease)

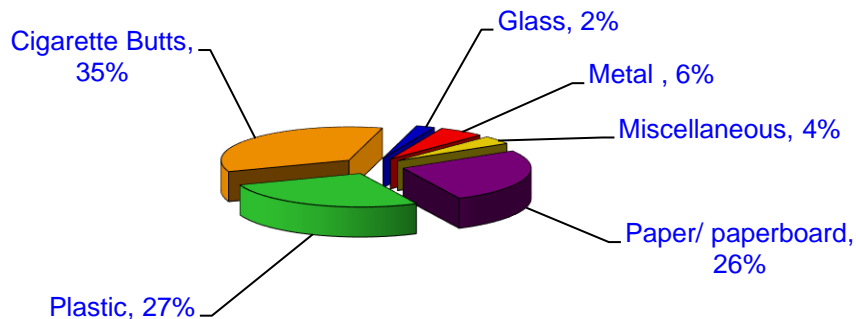


- PAPER/PAPERBOARD - Coffee cups - 89 items, down from 114 items (22% decrease)
- PAPER/PAPERBOARD - Paper bags - 73 items, down from 96 items (24% decrease)
- PAPER/PAPERBOARD - Tickets, e.g. bus, ATM, vending machine etc. - 26 items, down from 49 items (47% decrease)

Cigarette butts accounted for the largest proportion of all litter items counted (35%), down from 37% in Wave 75 and up from 32% in Wave 74 counted at the same time in the previous year. Other material types represented the following proportions of the litter items counted:

- Plastic items (27%, up from 25% in Wave 75)
- Paper/ paperboard (26%, down from 27% in Wave 75)
- Metal items (6%, unchanged from 6% in Wave 75)
- Miscellaneous items (4%, down from 4% in Wave 75)
- Glass items (2%, up from 1% in Wave 75)

### Items as Proportions of Total by Material Type



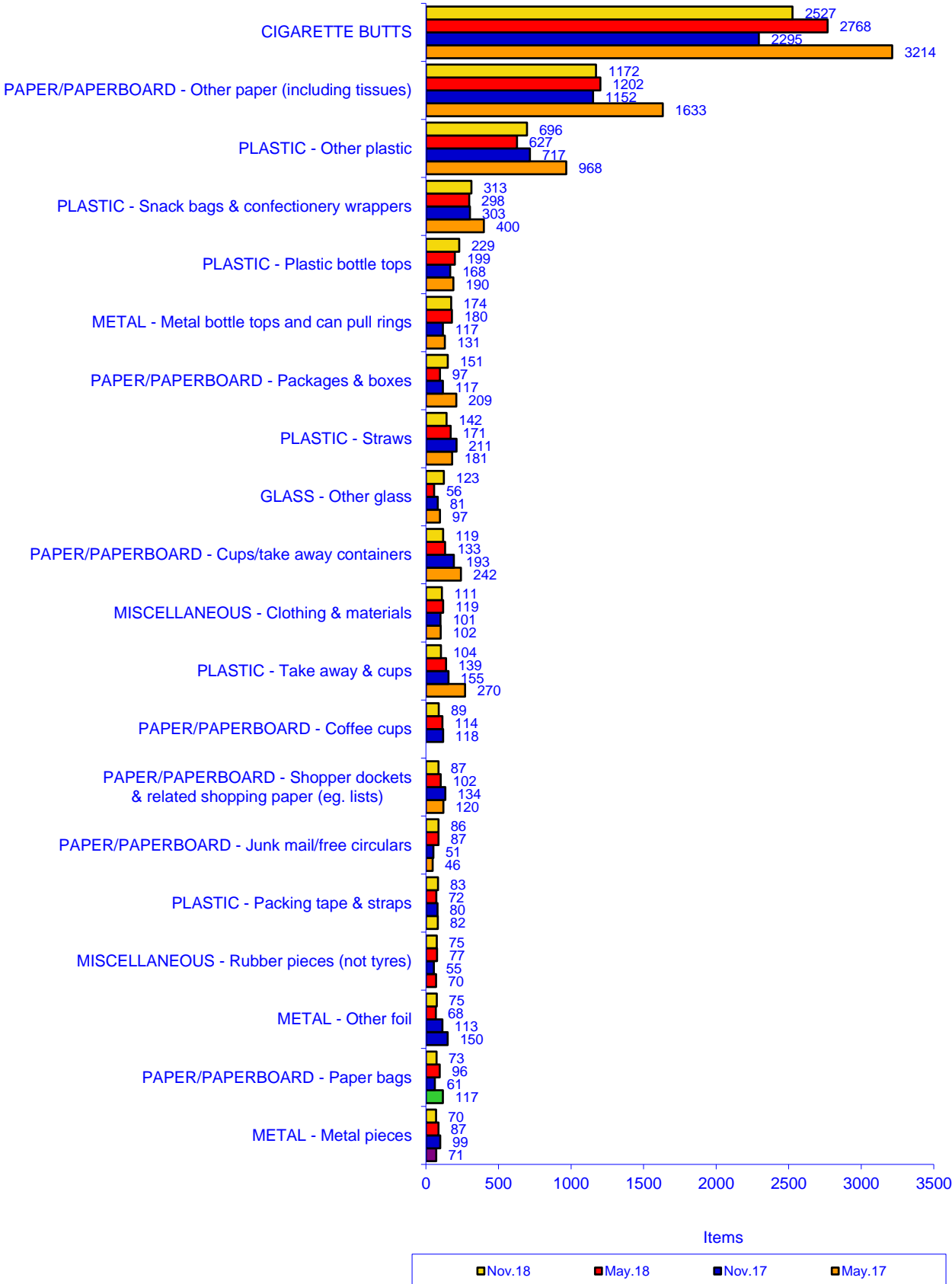
The top 20 ranking of litter type by number of items in Wave 76 was similar to the results for Wave 75, with new items entering the Top 20:

- GLASS – Other glass

With new entrants, there are always those items that exit from the top 20 item list, in Wave 75 these items were:

- MISCELLANEOUS - Other miscellaneous

TOP 20 CATEGORIES - HIGHEST COUNTS



## Litter Volume

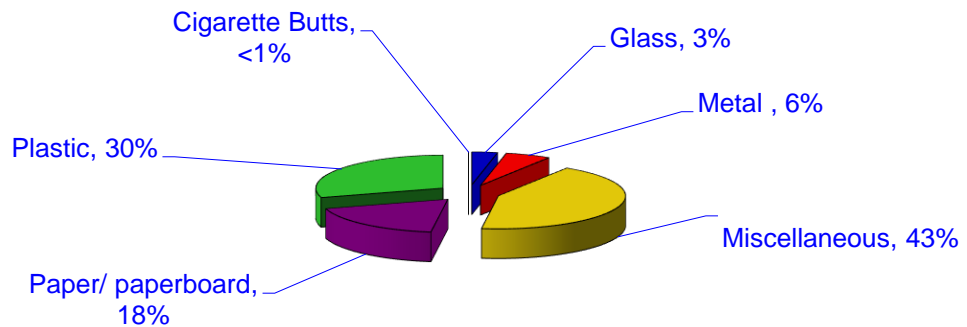
The total volume of litter recorded in November 2018 amounted to 0.583 cubic metres, lower than the estimated litter volume from the previous monitor in May 2018 (1.120m<sup>3</sup>) and the monitor in November 2017 (0.934m<sup>3</sup>) conducted at the same time in the previous year.

The largest proportion of litter volume for Wave 76 was contributed by miscellaneous items, with 43% of the total estimated volume (up from 30% in Wave 75).

Other material types represented the following proportions of the total volume of litter items counted:

- Plastic items (30%, down from 42% in Wave 75).
- Paper/ paperboard items (18%, down from 21% in Wave 75)
- Metal (6%, up from 5% in Wave 75)
- Glass (3%, unchanged from 3% in Wave 75)
- Cigarette butts (<1%, unchanged from Wave 75)

### Litter Volume as a Proportion of Total Volume



MISCELLANEOUS - Illegal dumping accounted for the highest volume of litter in Wave 76, with an estimated volume of 0.240m<sup>3</sup> (down from 0.312m<sup>3</sup> in Wave 75). Other items associated with large estimated litter volumes in Wave 76 included:

- PLASTIC - Containers, domestic type 0.117m<sup>3</sup> (down from 0.200m<sup>3</sup> in Wave 75)
- PAPER/PAPERBOARD - Cups/take away containers 0.039m<sup>3</sup> (down from 0.097 m<sup>3</sup> in Wave 75)
- PAPER/PAPERBOARD - Coffee cups 0.021m<sup>3</sup> (down from 0.056m<sup>3</sup> in Wave 75)
- PAPER/PAPERBOARD – Newspapers & magazines 0.019m<sup>3</sup> (down from 0.028m<sup>3</sup> in Wave 75)
- PLASTIC - Take away & cups 0.009m<sup>3</sup> (down from 0.029m<sup>3</sup> in Wave 75)
- METAL - Flav. water/soft drink, (carbonated), all sizes 0.008m<sup>3</sup> (down from 0.011m<sup>3</sup> in Wave 75)
- GLASS - Beer, all colours of glass, <750ml 0.008m<sup>3</sup> (down from 0.010m<sup>3</sup> in Wave 75)
- PAPER/PAPERBOARD - Cigarette packets 0.008m<sup>3</sup> (down from 0.014m<sup>3</sup> in Wave 75)
- PLASTIC - Flav. water/soft drink (carbonated), 1 litre+ 0.007m<sup>3</sup> (up from 0.002m<sup>3</sup> in Wave 75)

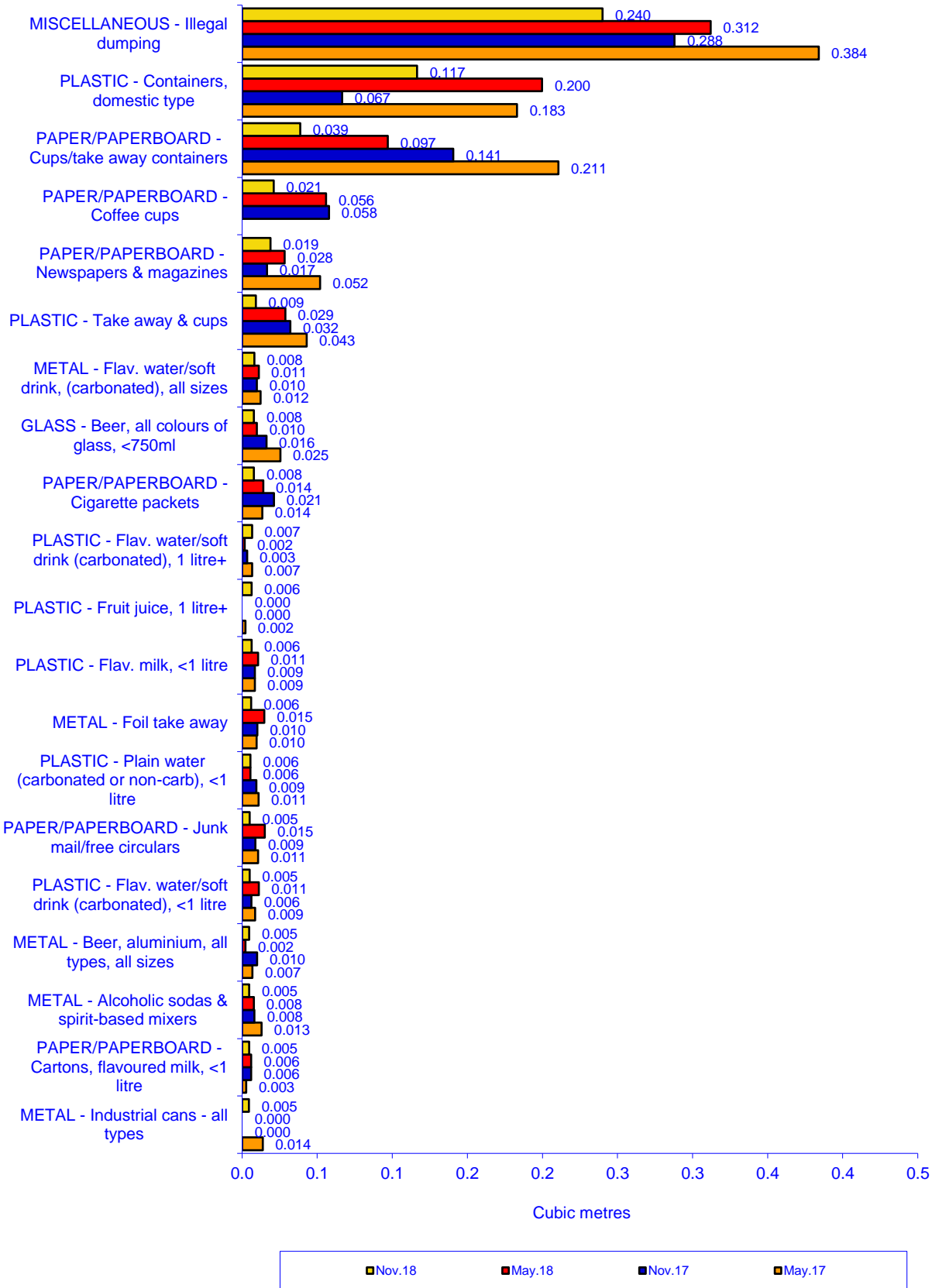
The top 20 ranking of litter items by volume in Wave 76 many similar items as Wave 75, with 6 new items entering the Top 20. These items were:

- PLASTIC – Flavoured water/soft drink (carbonated), 1 litre +
- PLASTIC – Fruit juice, 1 litre+
- PLASTIC – Plain water (carbonated or non-carbonated), <1 litre
- METAL – Beer, aluminium, all types, all sizes
- PAPER/PAPERBOARD – Flavoured milk, <1 litre
- METAL – Industrial cans – all types

With new entrants, there are always those items that exit from the top 20 volume list, in Wave 76 the following items were removed:

- PLASTIC – Containers, industrial e.g. oil
- MISCELLANEOUS – Construction materials
- GLASS - Beer, all colours of glass, <750ml
- METAL – Food cans (including pet food)
- PAPER/PAPERBOARD – Packages & boxes
- PLASTIC – Flavoured water/ fruit juice / sports drink (non-carbonated) <1 litre+

TOP 20 CATEGORIES - LARGEST VOLUMES

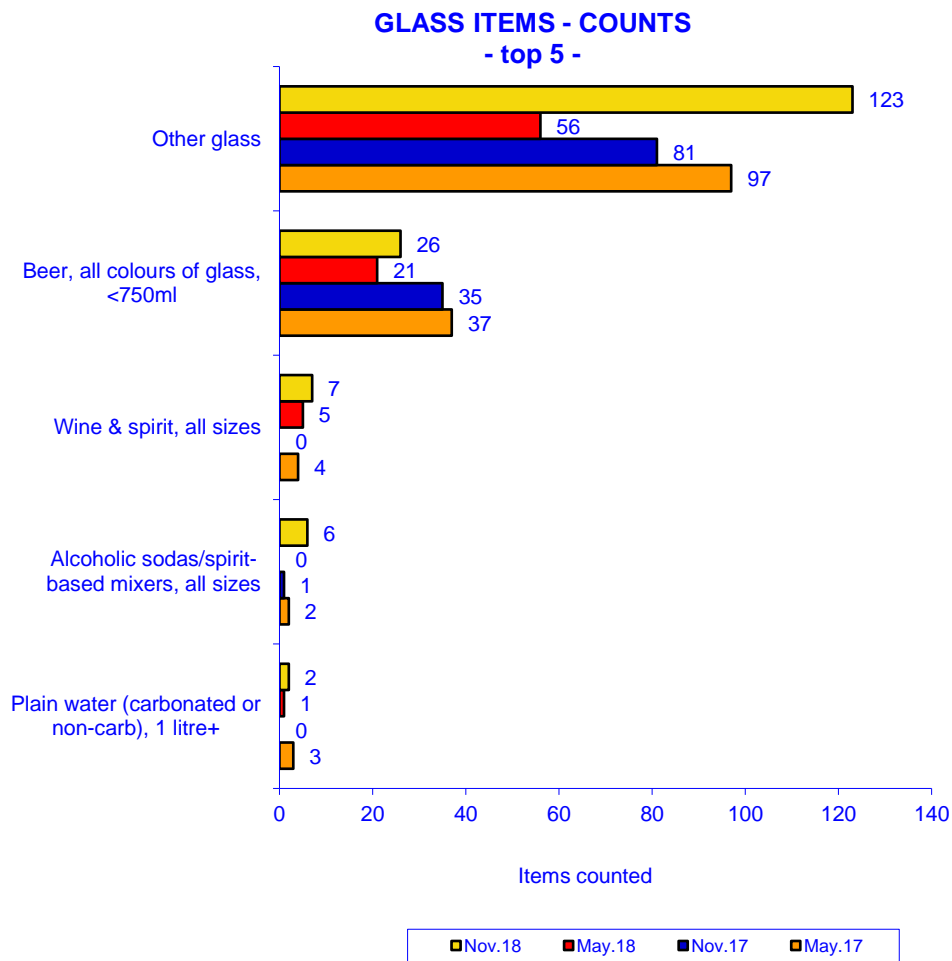


### 3.1 Glass

#### Items

A total of 172 glass litter items (up from 103 items in Wave 75) were counted during Wave 76. The most frequently recorded glass items included:

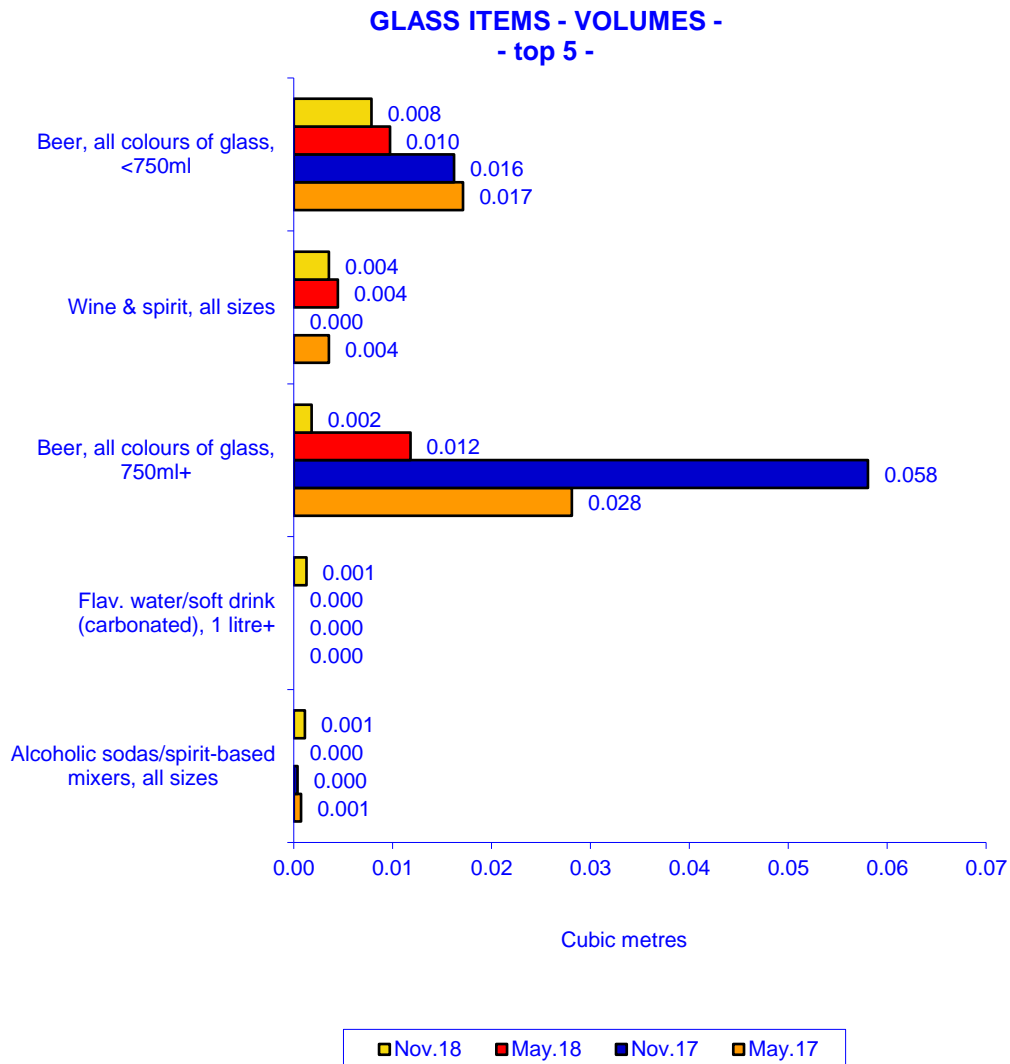
- Other glass (123 items, up from 56 items in Wave 75)
- Beer, all colours of glass <750ml (26 items, up from 21 items in Wave 75)
- Wine & spirits, all sizes (7 items, up from 5 items in Wave 75)
- Alcoholic sodas/ spirit-based mixers, all sizes (6 items, up from 0 items in Wave 75)
- Plain water (carbonated or non-carbonated), 1 litre+ (2 items, up from 1 item in Wave 75)



## Volume

Glass litter items accounted for 0.019m<sup>3</sup>, (down from 0.031m<sup>3</sup> in Wave 75) in estimated litter volume during Wave 76. Glass items which contributed the largest volumes to the total included:

- Beer, all colours of glass <750ml (0.008m<sup>3</sup>, down from 0.010m<sup>3</sup> in Wave 75)
- Wine & spirit, all sizes (0.004m<sup>3</sup>, unchanged from 0.004m<sup>3</sup> in Wave 75)
- Beer, all colours of glass 750ml+ (0.002m<sup>3</sup>, down from 0.012m<sup>3</sup> in Wave 75)
- Flavoured water/ soft drink (carbonated) 1 litre+ (0.001m<sup>3</sup>, up from 0.000m<sup>3</sup> in Wave 75)
- Alcoholic sodas/ spirit-based mixers, all sizes (0.001m<sup>3</sup>, up from 0.000m<sup>3</sup> in Wave 75)

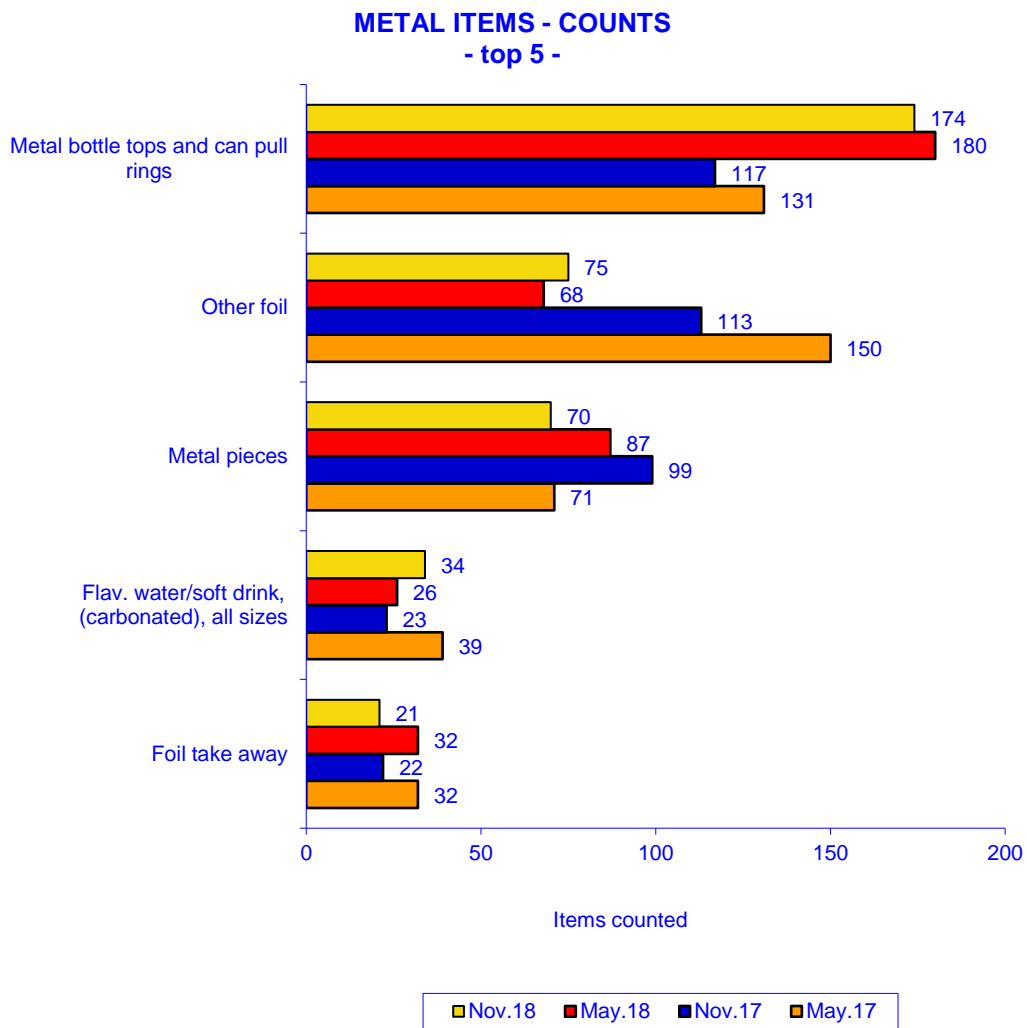


## 3.2 Metal

### Items

A total of 419 metal litter items (down from 443 items in Wave 75) were counted during Wave 76. The most frequently counted metal litter items included:

- Metal bottle tops and can pull rings (174 items, down from 180 items in Wave 75)
- Other foil (75 items, up from 68 items in Wave 75)
- Metal pieces (70 items, down from 87 items in Wave 75)
- Flavoured water/soft drink (carbonated), all sizes (34 items, up from 26 items in Wave 75)
- Foil take away (21 items, down from 32 items in Wave 75)

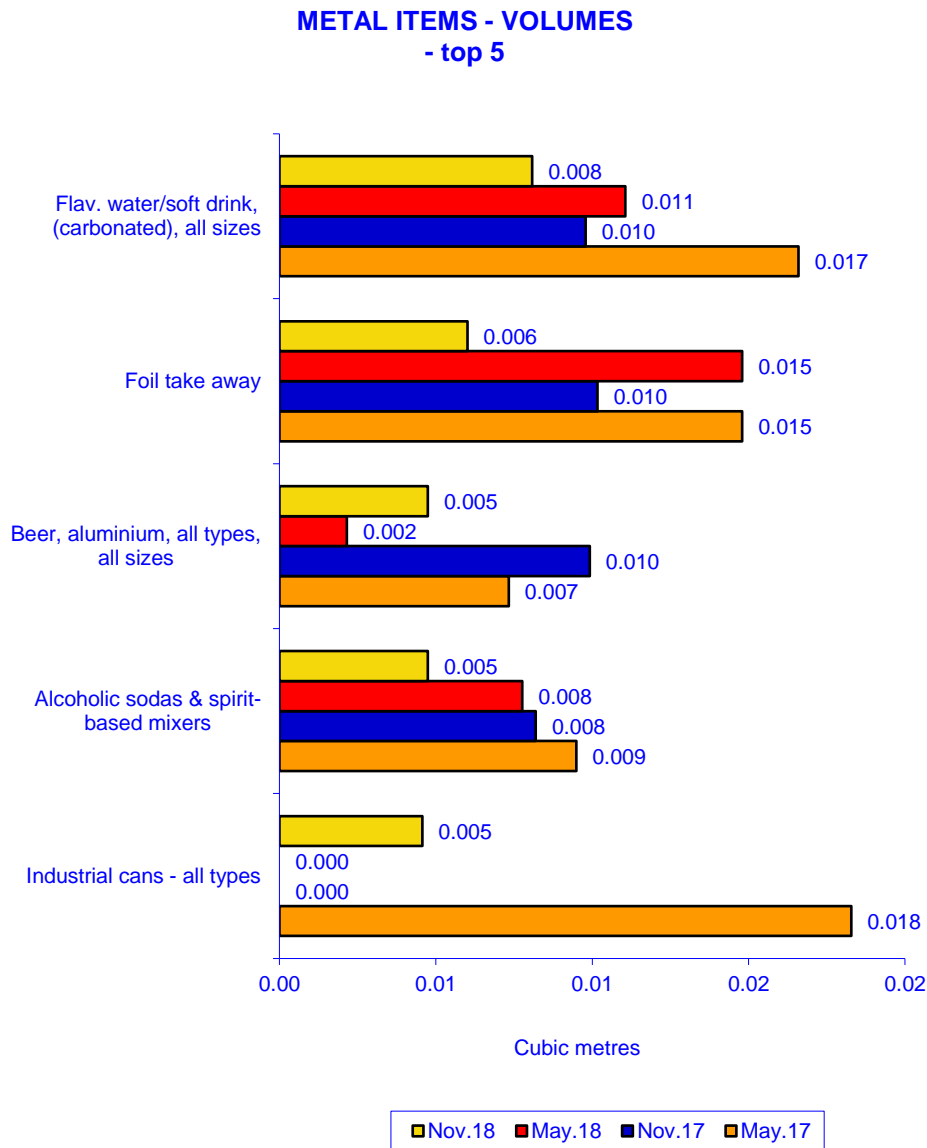




**Volume**

Metal litter items accounted for a total estimated litter volume of 0.034m<sup>3</sup> (down from 0.051m<sup>3</sup> in Wave 75). The metal items associated with the largest estimated volumes of litter during Wave 76 included:

- Flavoured water/soft drink (carbonated), all sizes (0.008m<sup>3</sup>, down from 0.011m<sup>3</sup> in Wave 75)
- Foil take away (0.006m<sup>3</sup>, down from 0.015m<sup>3</sup> in Wave 75)
- Beer, aluminium, all types, all sizes (0.005m<sup>3</sup>, up from 0.002m<sup>3</sup> in Wave 75)
- Alcoholic sodas & spirit-based mixers (0.005m<sup>3</sup>, down from 0.008m<sup>3</sup> in Wave 75)
- Industrial cans – all types (0.005m<sup>3</sup>, up from 0.000m<sup>3</sup> in Wave 75)

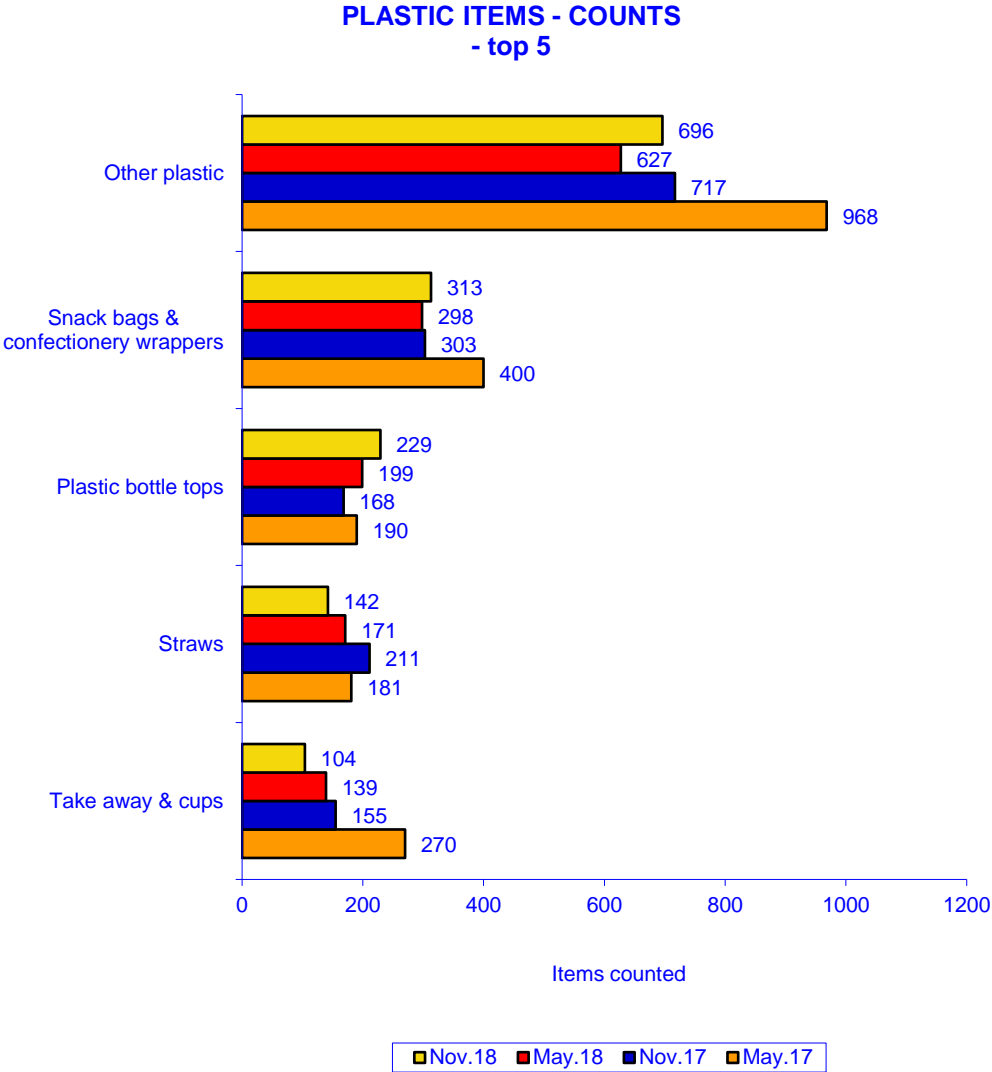


### 3.3 Plastic

#### Items

A total of 1,936 plastic litter items (up from 1,862 items in Wave 75) were counted during Wave 76. The most frequently counted plastic litter items included:

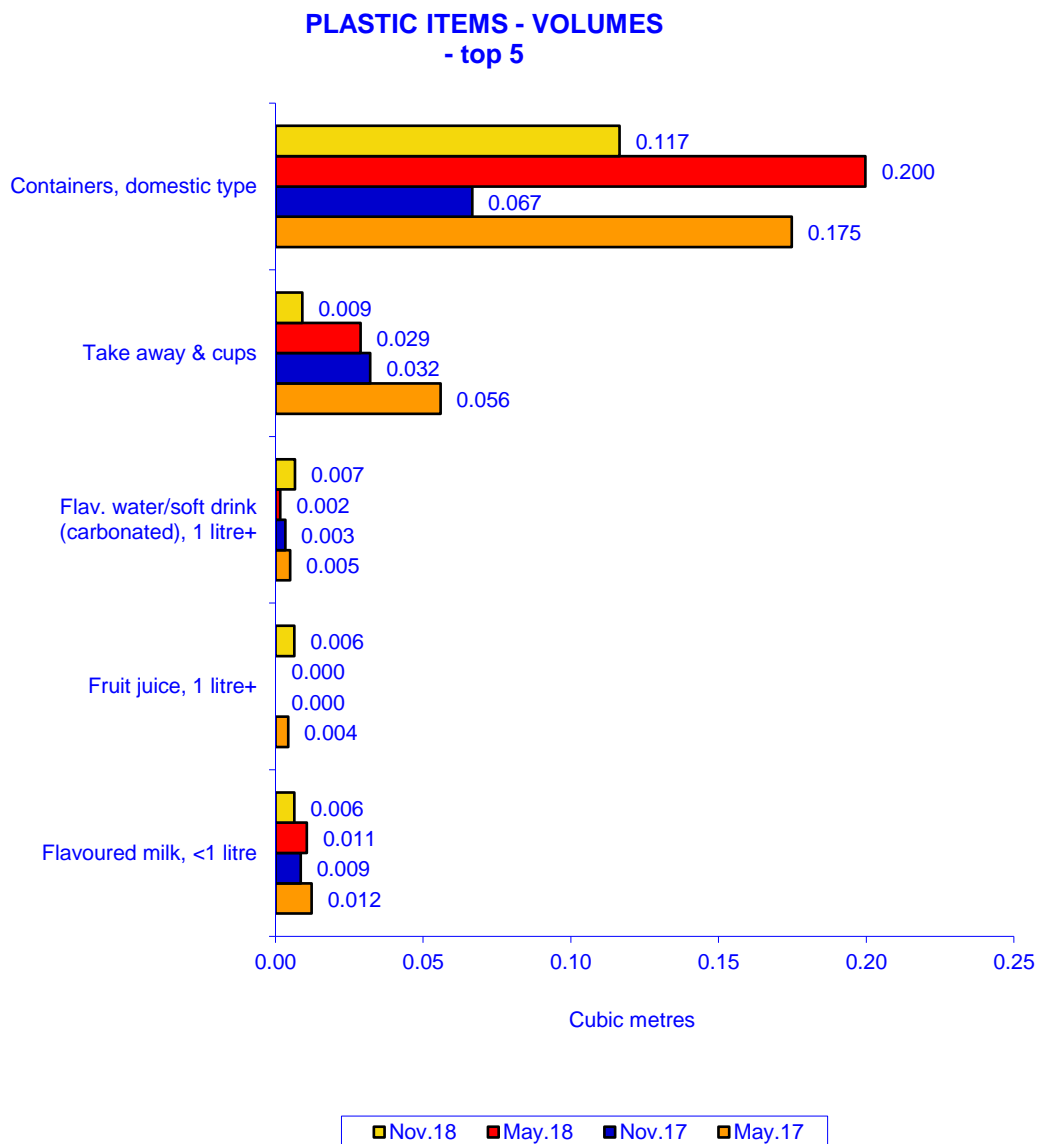
- Other plastic (696 items, up from 627 items in Wave 75)
- Snack bags & confectionery wrappers (313 items, up from 298 items in Wave 75)
- Plastic bottle tops (229 items, up from 199 items in Wave 75)
- Straws (142 items, down from 171 items in Wave 75)
- Take away & cups (104 items, down from 139 items in Wave 75)



## Volume

Plastic items were associated with an estimated litter volume of 0.173m<sup>3</sup> (down from 0.472m<sup>3</sup> in Wave 75). Items which represented the largest volumes within the Wave 76 litter count included:

- Containers, domestic type (0.117m<sup>3</sup>, down from 0.200m<sup>3</sup> in Wave 75)
- Take away & cups (0.009m<sup>3</sup>, down from 0.029m<sup>3</sup> in Wave 75)
- Flavoured water/soft drink (carbonated), 1 litre + (0.007m<sup>3</sup>, up from 0.002m<sup>3</sup> in Wave 75)
- Fruit juice, 1 litre+ (0.006m<sup>3</sup>, up from 0.000m<sup>3</sup> in Wave 75)
- Flavoured milk, <1 litre (0.006m<sup>3</sup>, down from 0.011m<sup>3</sup> in Wave 75)



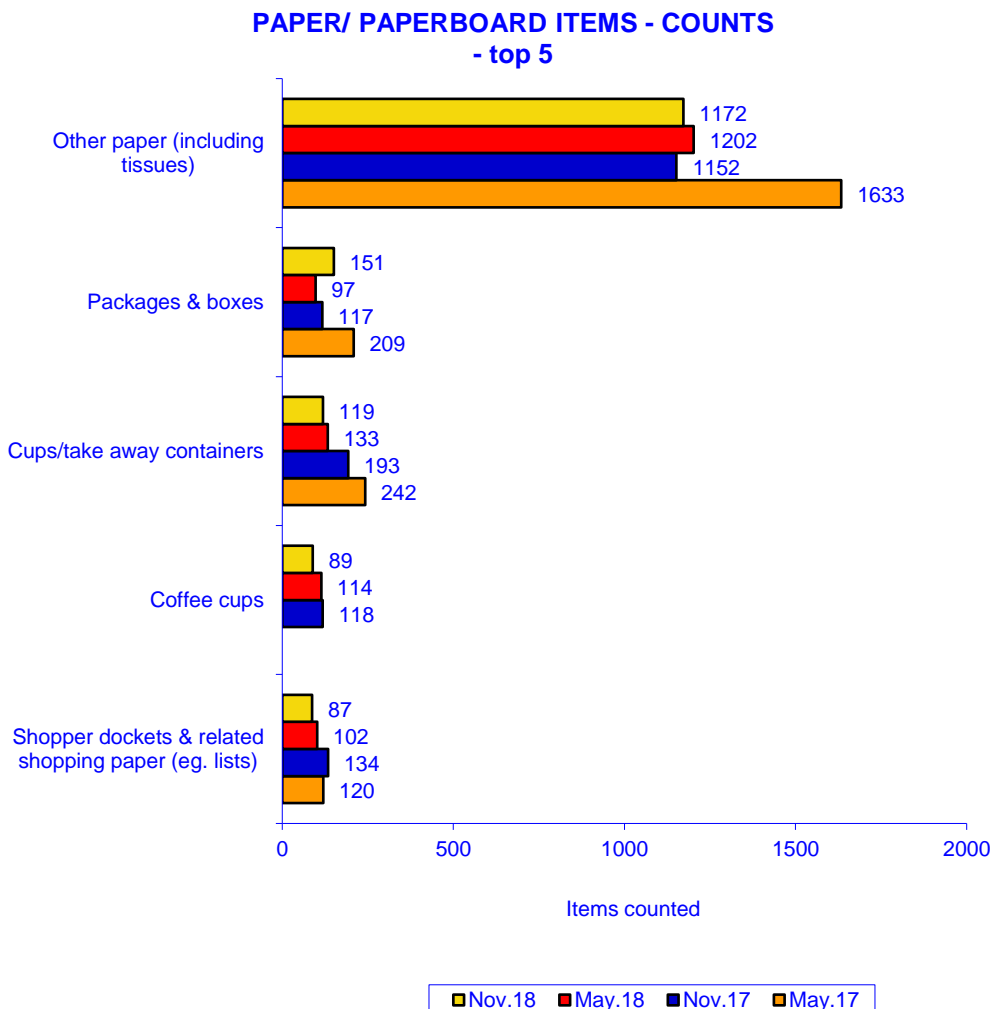
### 3.4 Paper/ Paperboard

#### Items

A total of 1,925 paper/paperboard litter items (down from 1,991 items in Wave 75) were recorded during Wave 76.

The most frequently identified items within this material type were:

- Other paper – including tissues (1,172 items, down from 1,202 items in Wave 75)
- Packages & boxes (151 items, up from 97 items in Wave 75)
- Cups/ take away containers (119 items, down from 133 items in Wave 75)
- Coffee cups (89 items, down from 114 items in Wave 75)
- Shopper docket & related shopping paper (e.g. lists) (87 items, down from 102 items in Wave 75)



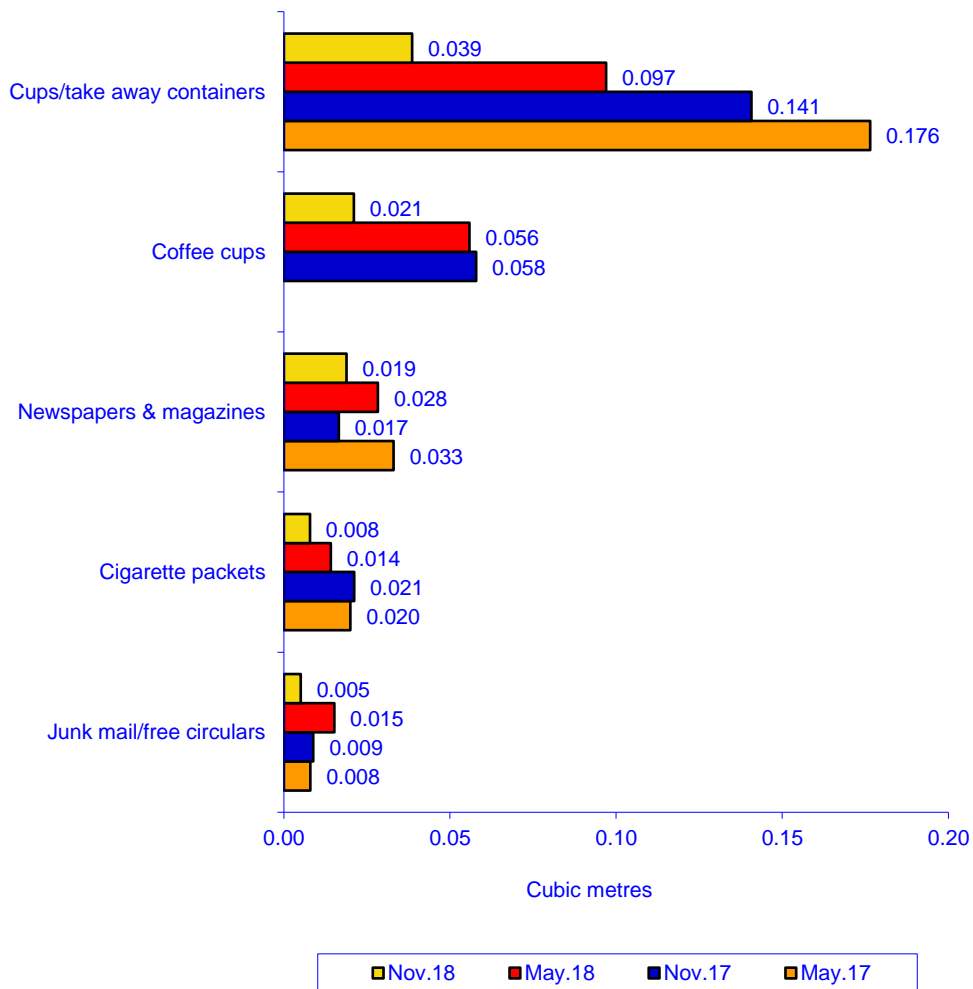
**Volume**

Paper/ Paperboard items accounted for 0.107m<sup>3</sup> in estimated litter volume (down from 0.232m<sup>3</sup> in Wave 75) in November 2018.

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

- Cups/take away containers (0.039m<sup>3</sup>, down from 0.097m<sup>3</sup> in Wave 75)
- Coffee cups (0.021m<sup>3</sup>, down from 0.056m<sup>3</sup> in Wave 75)
- Newspapers & magazines (0.019m<sup>3</sup>, down from 0.028m<sup>3</sup> in Wave 75)
- Cigarette packets (0.008m<sup>3</sup>, down from 0.014m<sup>3</sup> in Wave 75)
- Junk mail/ free circulars (0.005m<sup>3</sup>, down from 0.015m<sup>3</sup> in Wave 75)

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



### 3.5 Miscellaneous

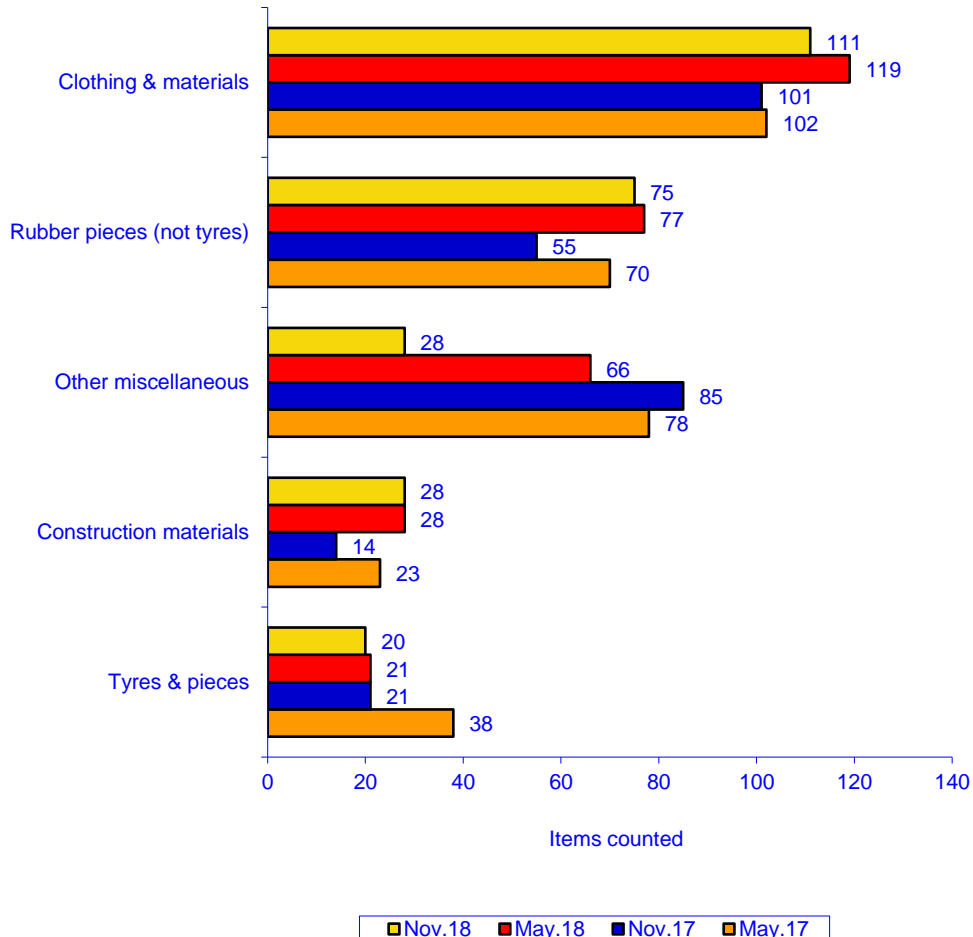
#### Items

A total of 291 miscellaneous items (down from 337 items in Wave 75) were counted during Wave 76.

The most frequently recorded items included:

- Clothing & materials (111 items, down from 119 items in Wave 75)
- Rubber pieces – not tyres (75 items, down from 77 items in Wave 75)  
Rubber pieces in this category include vehicle rubber mouldings, hose pipes and tubing, bicycle handle bar grips and casings, pram mouldings and strips.
- Other miscellaneous (28 items, down from 66 items in Wave 75)
- Construction materials (28 items, unchanged from 28 items in Wave 75)
- Tyres & pieces (20 items, down from 21 items in Wave 75)

**MISCELLANEOUS ITEMS - COUNTS**  
- top 5



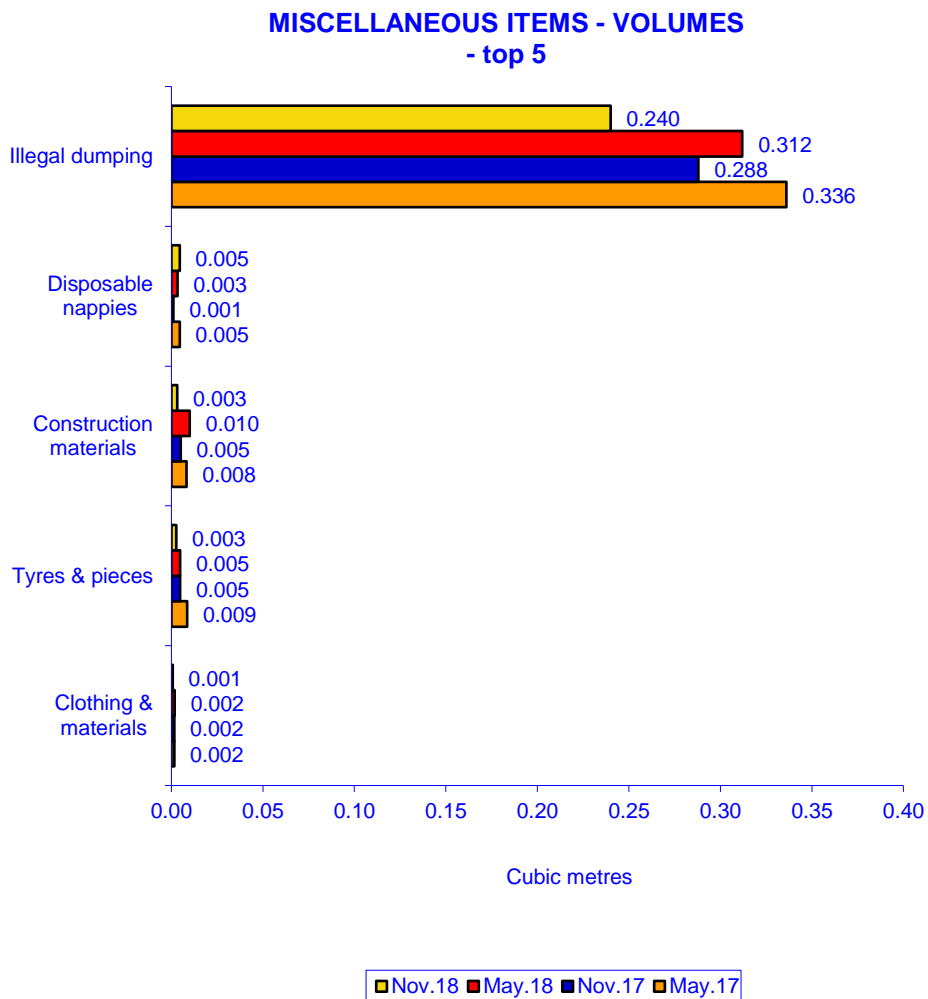
**Volume**

Miscellaneous litter was associated with an estimated litter volume of 0.251m<sup>3</sup> (down from 0.333m<sup>3</sup> in Wave 75) during Wave 76.

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 0.312m<sup>3</sup> in Wave 75).

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

- Disposable nappies (0.005m<sup>3</sup>, up from 0.003m<sup>3</sup> in Wave 75)
- Construction materials (0.003m<sup>3</sup>, up from 0.010m<sup>3</sup> in Wave 75)
- Tyres & pieces (0.003m<sup>3</sup>, down from 0.005m<sup>3</sup> in Wave 75)
- Clothing and materials (0.001m<sup>3</sup>, down from 0.002m<sup>3</sup> in Wave 75)



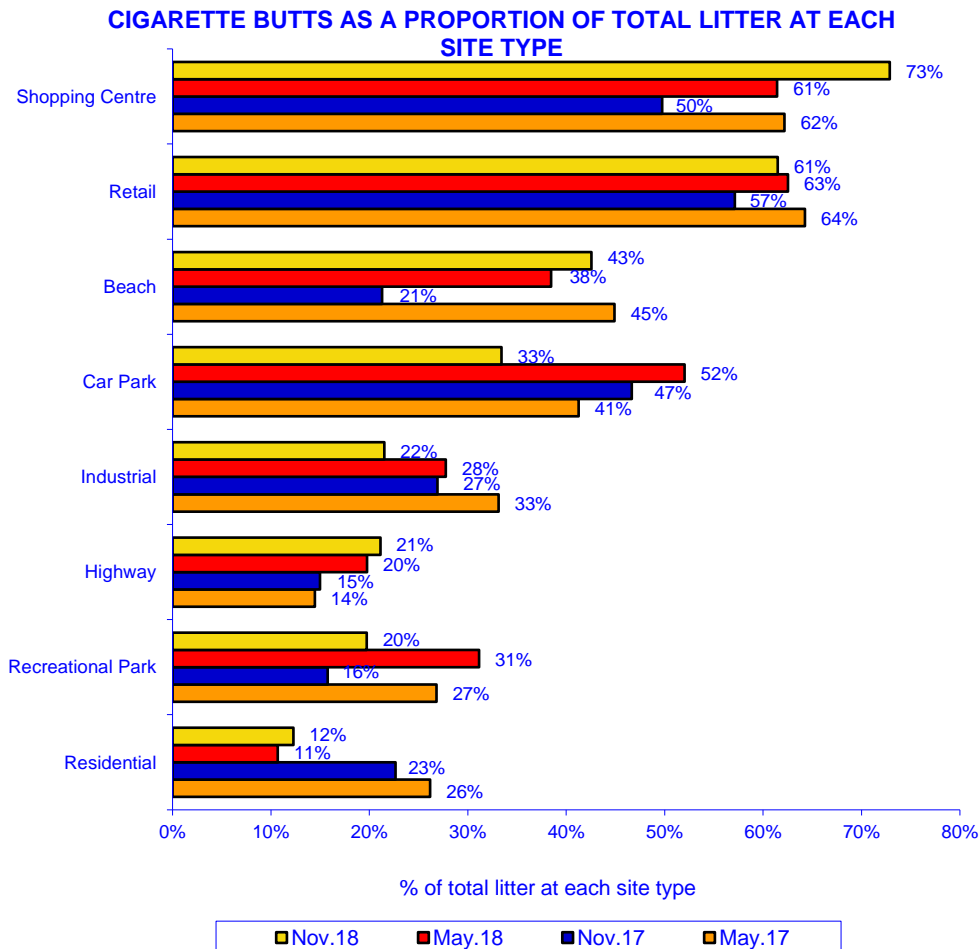
### 3.6 Cigarette Butts

#### Items

The total number of cigarette butts recorded during Wave 76 was 2,527, down from 2,768 in Wave 75 and up from 2,295 in Wave 74 at the same time the previous year.

The proportion of cigarette butts against the total number of litter items was highest at shopping centres (73%, up from 61% in Wave 75) and retail sites (61%, down from 63% in Wave 75). Cigarette butts also contributed the following proportions of total litter at the following site types:

- Beaches (43%, up from 38% in Wave 75)
- Car parks (33%, down from 52% in Wave 75)
- Industrial sites (22%, down from 28% in Wave 75)
- Highway sites (21%, up from 20% in Wave 75)
- Recreational parks (20%, down from 31% in Wave 75)
- Residential sites (12%, up from 11% in Wave 75)





## **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

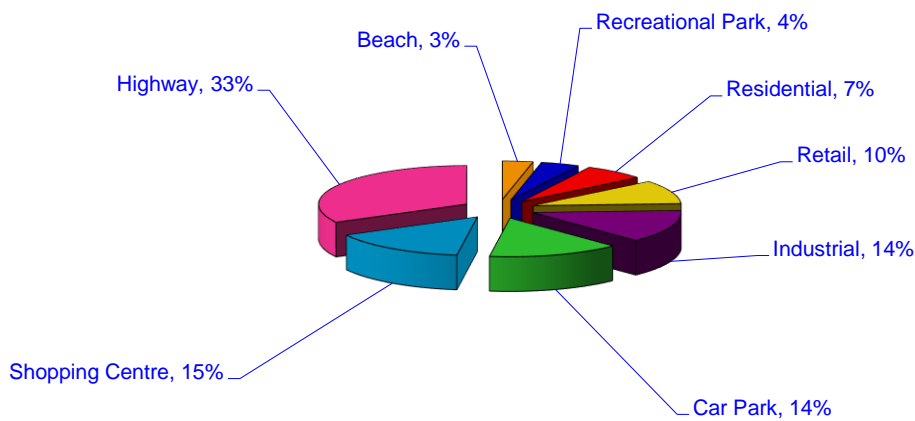
#### Items

Highways remained the most significant contributor to the total number of litter items counted in November 2018 with 33% (down from 35% in Wave 75) 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 76:

- Shopping Centre (15%, unchanged from 15% in Wave 75)
- Car Park (14%, down from 18% in Wave 75)
- Industrial (14%, up from 9% in Wave 75)
- Retail (10%, unchanged from 10% in from Wave 75)
- Residential (7%, unchanged from 7% in Wave 75)
- Recreational Park (4%, unchanged from 4% in Wave 75)
- Beach (3%, unchanged from 3% from Wave 75)

#### 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, shopping centres and industrial sites contributed large amounts to the total number of litter items in the November 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 33% (down from 35% in Wave 75) of the total litter items counted in Wave 73.
- Shopping centres - incorporated 9% of the sites surveyed and contributed 15% (unchanged from 15% in Wave 75) of the litter items counted in Wave 76.
- Industrial sites incorporated 11% of the sites surveyed and contributed 14% (up from 9% in Wave 75) of the total litter items counted in Wave 76.

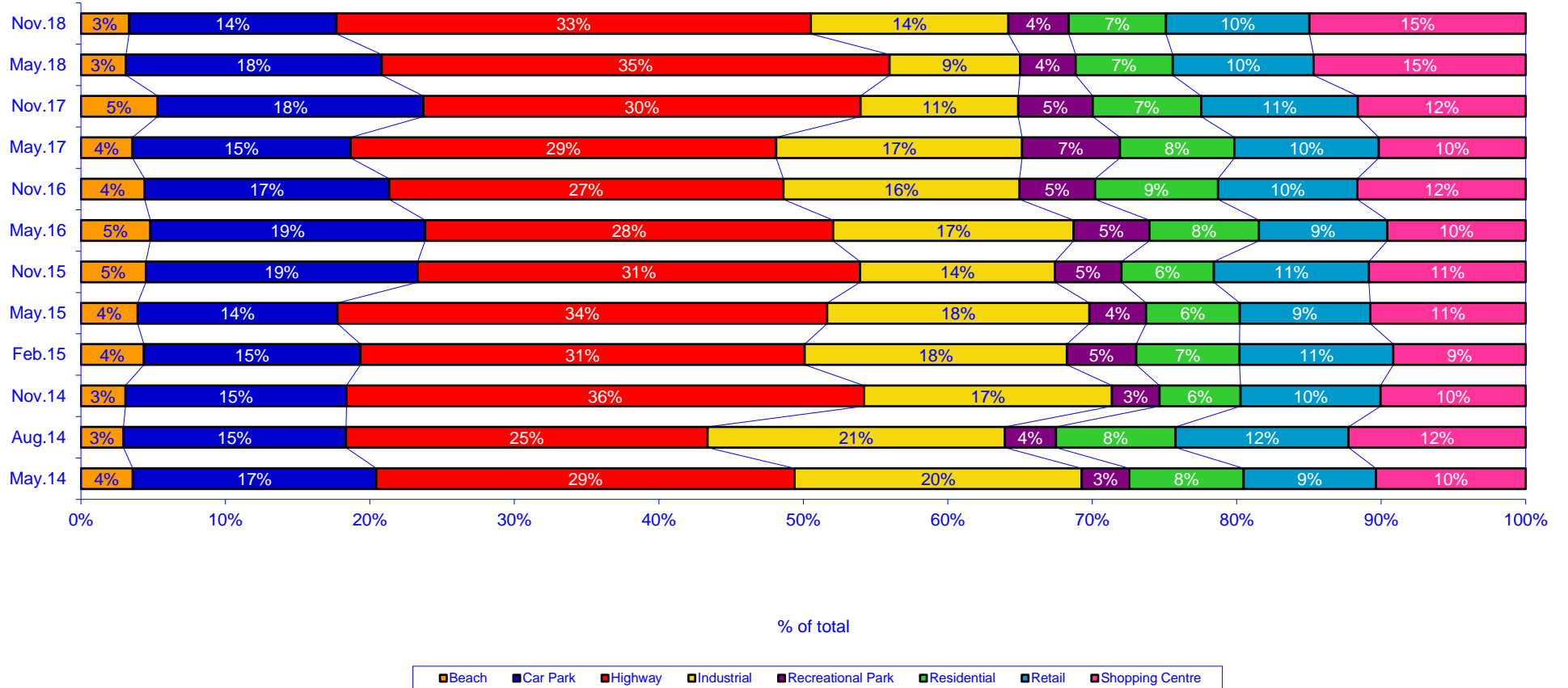
Conversely, residential locations and beaches contributed smaller proportions of litter items to the total litter count than anticipated based upon the proportion of these sites within the overall sample of locations as detailed below:

- Residential areas incorporated 17% of the sites surveyed but contributed only 7% (unchanged from 7% in Wave 75) of the litter items counted in Wave 76.
- Beaches represented 11% of the sites surveyed but contributed only 3% (unchanged from 3% in Wave 75) of the litter counted in Wave 76.
- Recreational Parks represented 9% of sites surveyed and contributed 4% (unchanged from 4% in Wave 75) of the litter counted in Wave 76.

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 November 2018, the proportions were:

- Car parks incorporated 15% of the sites surveyed and contributed 14% (down from 18% in Wave 75) of the litter items counted in Wave 76.
- Retail areas - incorporated 10% of the sites surveyed and contributed 10% (unchanged from 10% in Wave 75) of the litter items counted in Wave 76.

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

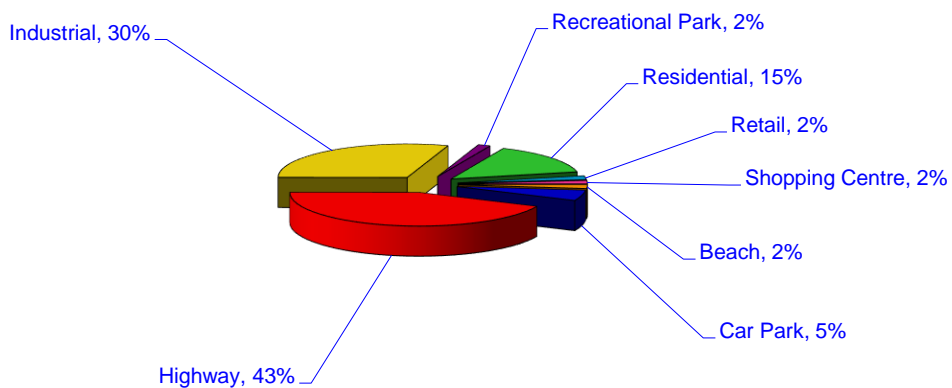


**Volume**

More than two fifths (43%, down from 63% in Wave 75) of the total volume of litter estimated during Wave 76 was associated with litter items in highway locations, while almost one third (30%, down from 18% in Wave 75) was associated with litter items in industrial sites.

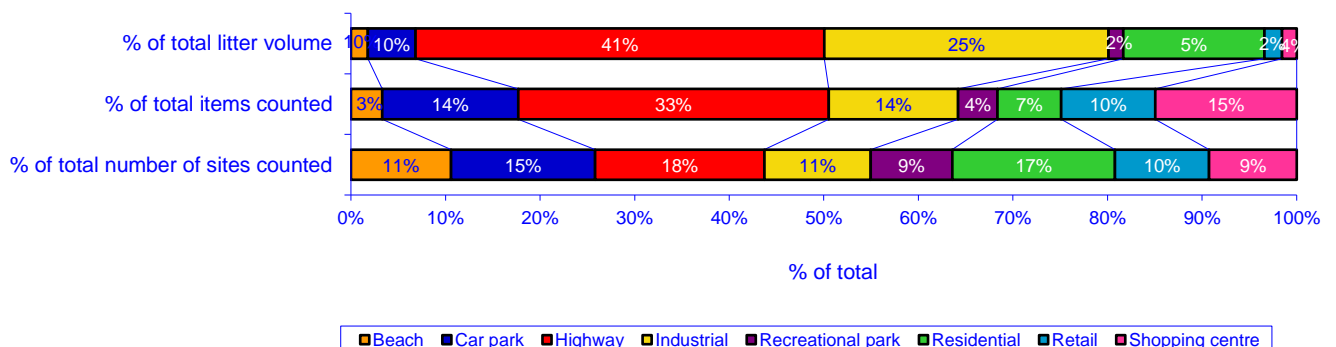
Lower volumes of litter were contributed to the total litter volume by residential sites (15%, up from 4% in Wave 75), car park sites (5%, down from 6% in Wave 75), retail sites (2%, down from 3% in Wave 75), recreational park sites (2%, unchanged from Wave 75), shopping centres (2%, up from 1% in Wave 75) and beaches (2%, up from 1% in Wave 75) during Wave 76.

**PROPORTION OF TOTAL LITTER VOLUME BY SITE TYPE**



A comparison of the litter volume, number of litter items and proportion of sites represented within location types shows that highway locations 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**

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The majority (97%, up from 98% in Wave 75) of litter items counted in November 2018 were non-beverage items.

The total number of CDL beverage containers counted was 197 items, down from 244 items in Wave 75.

CDL beverage containers accounted for 90% (down from 93% in Wave 75) of all beverage containers counted during Wave 76.

## Data Summary - Items

KESAB - Litter Strategy Monitoring Wave 76 - November 2018			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
CIGARETTE BUTTS		NBEV	103	349	504	214	60	60	444	793	2062	465	2527
GLASS	Alcoholic sodas/spirit-based mixers, all sizes	CDL		1		4			1		1	5	6
	Beer, all colours of glass, <750ml	CDL		7	15	2		1		1	21	5	26
	Beer, all colours of glass, 750ml+	CDL		1	1						2		2
	Cider/fruit based etc.	CDL		1								1	1
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL											
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL											
	Flav. water/soft drink (carbonated), <1 litre	CDL				1					2		2
	Flav. water/soft drink (carbonated), 1 litre+	CDL			1							1	1
	Fruit juice, <1 litre	CDL											
	Fruit juice, 1 litre+	BEV											
	Other glass	NBEV	1	56	44	15		1	3	3	112	11	123
	Plain water (carbonated or non-carb), <1 litre	CDL							2			2	2
	Plain water (carbonated or non-carb), 1 litre+	CDL			2						2		2
	Wine & spirit, all sizes	BEV		4	2	1					5	2	7
Wine cooler, all sizes	CDL												
<b>TOTAL</b>			<b>1</b>	<b>70</b>	<b>65</b>	<b>23</b>		<b>3</b>	<b>6</b>	<b>4</b>	<b>145</b>	<b>27</b>	<b>172</b>
METAL	Aerosols - pressure packs	NBEV		1	1	1				1	3	1	4
	Alcoholic sodas & spirit-based mixers	CDL		3	4	5	1	1			8	6	14
	Beer, aluminium, all types, all sizes	CDL			13	4		1			9	9	18
	Cider/fruit based etc.	CDL			1						1		1
	Flav. water/soft drink, (carbonated), all sizes	CDL	2	6	22	3				1	29	5	34
	Flav. water/soft drink, (non-carb), all sizes	CDL				2					2		2
	Foil take away	NBEV	1	1	11	5	2	1			15	6	21
	Food cans (including pet food)	NBEV		1	1	3					2	3	5
	Industrial cans - all types	NBEV				1					1		1
	Metal bottle tops and can pull rings	NBEV	3	27	90	28	8	7	6	5	148	26	174
	Metal pieces	NBEV		5	37	20		4	4		60	10	70
	Other foil	NBEV	6	7	28	15	3	6	8	2	66	9	75
<b>TOTAL</b>			<b>12</b>	<b>51</b>	<b>208</b>	<b>87</b>	<b>14</b>	<b>20</b>	<b>18</b>	<b>9</b>	<b>344</b>	<b>75</b>	<b>419</b>



KESAB - Litter Strategy Monitoring Wave 76 - November 2018			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
MISCELLANEOUS	Clothing & materials	NBEV	3	11	60	23	2	8	2	2	76	35	111
	Condoms	NBEV											
	Construction materials	NBEV			11	11			6		21	7	28
	Disposable nappies	NBEV		4		1					5		5
	Ice cream sticks	NBEV		2	4	2			1		5	4	9
	Illegal dumping	NBEV			3	9		2			12	2	14
	Other miscellaneous	NBEV		4	9	8		7			24	4	28
	Rubber pieces (not tyres)	NBEV	3	6	39	12	2	6	4	3	65	10	75
	Syringes	NBEV		1							1		1
	Tyres & pieces	NBEV			19			1			17	3	20
<b>TOTAL</b>			<b>6</b>	<b>28</b>	<b>145</b>	<b>66</b>	<b>4</b>	<b>24</b>	<b>13</b>	<b>5</b>	<b>226</b>	<b>65</b>	<b>291</b>
PAPER/PAPERBOARD	Cartons, flavoured milk, <1 litre	CDL		4		7	1				5	7	12
	Cartons, flavoured milk, 1 litre+	BEV											
	Cartons, fruit juice, <1 litre	CDL			1						1		1
	Cartons, fruit juice, 1 litre+	BEV			1						1		1
	Cartons, milk, plain (white), all sizes	BEV				2		1			1	2	3
	Cigarette packets	NBEV		7	27	17	1		2	5	44	15	59
	Cups/take away containers	NBEV	5	18	64	8	4	4	10	6	92	27	119
	Coffee cups	NBEV	1	4	64	4	1	5	3	7	74	15	89
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	1	2				1			3	1	4
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL											
	Ice cream wrappers	NBEV					1	1	1	1	2	2	4
	Junk mail/free circulars	NBEV		3	15	8	1	44	2	13	70	16	86
	Newspapers & magazines	NBEV	2		5	15		15	1		29	9	38
	Other paper (including tissues)	NBEV	34	212	416	153	83	103	94	77	1032	140	1172
	Packages & boxes	NBEV	2	20	61	41	1	14	1	11	118	33	151
	Paper bags	NBEV	8	4	40	9	2	4		6	46	27	73
Shopper docketts & related shopping paper (eg. lists)	NBEV		20	3	9		12	18	25	71	16	87	
Tickets, e.g. bus, ATM, vending machine etc.	NBEV		2	5	1		4	9	5	25	1	26	
<b>TOTAL</b>			<b>53</b>	<b>296</b>	<b>702</b>	<b>274</b>	<b>95</b>	<b>208</b>	<b>141</b>	<b>156</b>	<b>1614</b>	<b>311</b>	<b>1925</b>

KESAB - Litter Strategy Monitoring Wave 76 - November 2018			Items										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
PLASTIC	6 ring can holders	NBEV			2	1					2	1	3
	Bags - heavier glossy typically branded carry bags	NBEV			16	14			1		14	17	31
	Bags - supermarket type light weight carry bags	NBEV	1	2	36	1	1	6	4	1	35	17	52
	Bread bag tags	NBEV		2	1	4	5		2	6	12	8	20
	Containers, domestic type	NBEV			15	2		2			13	6	19
	Containers, industrial e.g. oil	NBEV											
	Drink pouches	CDL				8		5			12	1	13
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL											
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL			1						1		1
	Flav. water/soft drink (carbonated), <1 litre	CDL	1		10						5	6	11
	Flav. water/soft drink (carbonated), 1 litre+	CDL			2		1	1			1	3	4
	Flavoured milk, <1 litre	CDL		3	12	1		1			15	2	17
	Flavoured milk, 1 litre+	BEV			3						3		3
	Fruit juice, <1 litre	CDL			2		1				3		3
	Fruit juice, 1 litre+	BEV			2	1					2	1	3
	Lollipop sticks	NBEV	6	7		1	19	9	6	1	29	20	49
	Other plastic	NBEV	20	123	274	125	22	63	31	38	623	73	696
	Packing tape & straps	NBEV			45	27		7	2	2	66	17	83
	Plain water (carbonated or non-carb), <1 litre	CDL	4	1	7	4	2				13	5	18
	Plain water (carbonated or non-carb), 1 litre+	CDL	1		1						2		2
	Plastic bottle tops	NBEV	9	45	70	46	13	20	11	15	201	28	229
	Sacks - sheeting - other bags	NBEV		2	29	3			1		20	15	35
	Snack bags & confectionery wrappers	NBEV	11	27	98	33	41	46	25	32	252	61	313
	Spoons/cutlery	NBEV		6	8	2	1		4	4	17	8	25
	Straws	NBEV	10	18	41	19	17	9	11	17	106	36	142
	Styrene foam boxes, sheets, etc.	NBEV			41	12	1			1	51	4	55
	Take away & cups	NBEV	4	14	44	24	7	5	2	4	69	35	104
White milk, all sizes	BEV			3						2	1	3	
Wine cask bladders	BEV				2						2	2	
<b>TOTAL</b>		<b>67</b>	<b>250</b>	<b>763</b>	<b>330</b>	<b>131</b>	<b>174</b>	<b>100</b>	<b>121</b>	<b>1569</b>	<b>367</b>	<b>1936</b>	
<b>GRAND TOTAL</b>		<b>242</b>	<b>1044</b>	<b>2387</b>	<b>994</b>	<b>304</b>	<b>489</b>	<b>722</b>	<b>1088</b>	<b>5960</b>	<b>1310</b>	<b>7270</b>	

# Data Summary - Volumes

KESAB - Litter Strategy Monitoring Wave 76 - November 2018		Volume - Cubic Metres											
		BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS	
CIGARETTE BUTTS		NBEV	0.000001	0.000002	0.000002	0.000002	0.000001	0.000002	0.000002	0.000002	0.000001	0.000003	0.000013
GLASS	Alcoholic sodas/spirit-based mixers, all sizes	CDL		0.000374		0.000374			0.000374		0.000374	0.000749	0.001123
	Beer, all colours of glass, <750ml	CDL		0.002315	0.003703	0.000926		0.000463		0.000463	0.006018	0.001852	0.007870
	Beer, all colours of glass, 750ml+	CDL		0.000907	0.000907						0.001815		0.001815
	Cider/fruit based etc.	CDL		0.000458								0.000458	0.000458
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL											
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL											
	Flav. water/soft drink (carbonated), <1 litre	CDL				0.000396		0.000396			0.000792		0.000792
	Flav. water/soft drink (carbonated), 1 litre+	CDL			0.001277							0.001277	0.001277
	Fruit juice, <1 litre	CDL											
	Fruit juice, 1 litre+	BEV											
	Other glass	NBEV	0.000020	0.000098	0.000157	0.000079		0.000020	0.000039	0.000059	0.000393	0.000079	0.000471
	Plain water (carbonated or non-carb), <1 litre	CDL							0.000581			0.000581	0.000581
	Plain water (carbonated or non-carb), 1 litre+	CDL			0.001059						0.001059		0.001059
	Wine & spirit, all sizes	BEV		0.001783	0.000891	0.000891					0.001783	0.001783	0.003566
	Wine cooler, all sizes	CDL											
<b>TOTAL</b>			<b>0.000020</b>	<b>0.005935</b>	<b>0.007996</b>	<b>0.002666</b>		<b>0.000878</b>	<b>0.000995</b>	<b>0.000522</b>	<b>0.012233</b>	<b>0.006778</b>	<b>0.019011</b>
METAL	Aerosols - pressure packs	NBEV		0.000684	0.000684	0.000684				0.000684	0.002053	0.000684	0.002737
	Alcoholic sodas & spirit-based mixers	CDL		0.001294	0.001294	0.001294	0.000431	0.000431			0.003020	0.001726	0.004745
	Beer, aluminium, all types, all sizes	CDL			0.003451	0.000863		0.000431			0.002157	0.002588	0.004745
	Cider/fruit based etc.	CDL			0.000431						0.000431		0.000431
	Flav. water/soft drink, (carbonated), all sizes	CDL	0.000851	0.000851	0.004681	0.001277				0.000426	0.006809	0.001277	0.008085
	Flav. water/soft drink, (non-carb), all sizes	CDL				0.000382					0.000382		0.000382
	Foil take away	NBEV	0.000462	0.000462	0.002774	0.001387	0.000462	0.000462			0.004161	0.001850	0.006011
	Food cans (including pet food)	NBEV		0.000464	0.000464	0.000464					0.000928	0.000464	0.001391
	Industrial cans - all types	NBEV				0.004570					0.004570		0.004570
	Metal bottle tops and can pull rings	NBEV	0.000008	0.000056	0.000064	0.000060	0.000016	0.000020	0.000016	0.000016	0.000216	0.000040	0.000256
	Metal pieces	NBEV		0.000042	0.000106	0.000085		0.000032	0.000011		0.000233	0.000042	0.000276
	Other foil	NBEV	0.000003	0.000008	0.000016	0.000009	0.000003	0.000009	0.000005	0.000003	0.000047	0.000009	0.000056
	<b>TOTAL</b>			<b>0.001325</b>	<b>0.003862</b>	<b>0.013966</b>	<b>0.011075</b>	<b>0.000913</b>	<b>0.001386</b>	<b>0.000031</b>	<b>0.001129</b>	<b>0.025006</b>	<b>0.008680</b>

KESAB - Litter Strategy Monitoring Wave 76 - November 2018			Volume - Cubic Metres										
			BEACH	CAR PARK	HIGHWAY	INDUSTRIAL	RECREATIONAL PARK	RESIDENTIAL	RETAIL	SHOPPING CENTRE	METROPOLITAN	REGIONAL	TOTAL ITEMS
MISCELLANEOUS	Clothing & materials	NBEV	0.000046	0.000077	0.000199	0.000168	0.000031	0.000107	0.000031	0.000031	0.000536	0.000153	0.000689
	Condoms	NBEV											
	Construction materials	NBEV			0.001440	0.001440			0.000360		0.002520	0.000720	0.003240
	Disposable nappies	NBEV		0.003375		0.001125					0.004500		0.004500
	Ice cream sticks	NBEV		0.000002	0.000003	0.000001			0.000001		0.000004	0.000003	0.000006
	Illegal dumping	NBEV			0.072000	0.120000			0.048000		0.192000	0.048000	0.240000
	Other miscellaneous	NBEV		0.000054	0.000108	0.000068			0.000068		0.000243	0.000054	0.000297
	Rubber pieces (not tyres)	NBEV	0.000000	0.000001	0.000002	0.000001	0.000000	0.000001	0.000000	0.000000	0.000005	0.000001	0.000006
	Syringes	NBEV		0.000002							0.000002		0.000002
	Tyres & pieces	NBEV			0.002475				0.000225		0.002250	0.000450	0.002700
<b>TOTAL</b>			<b>0.000046</b>	<b>0.003510</b>	<b>0.076227</b>	<b>0.122803</b>	<b>0.000031</b>	<b>0.048400</b>	<b>0.000392</b>	<b>0.000031</b>	<b>0.202060</b>	<b>0.049380</b>	<b>0.251440</b>
PAPER/PAPERBOARD	Cartons, flavoured milk, <1 litre	CDL		0.001345		0.002690	0.000672				0.002017	0.002690	0.004707
	Cartons, flavoured milk, 1 litre+	BEV											
	Cartons, fruit juice, <1 litre	CDL			0.000625						0.000625		0.000625
	Cartons, fruit juice, 1 litre+	BEV			0.002070						0.002070		0.002070
	Cartons, milk, plain (white), all sizes	BEV				0.001013		0.001013			0.001013	0.001013	0.002025
	Cigarette packets	NBEV		0.001307	0.002832	0.002179	0.000218		0.000436	0.000871	0.006318	0.001525	0.007843
	Cups/take away containers	NBEV	0.002187	0.006561	0.014579	0.002916	0.002187	0.002916	0.005103	0.002187	0.030616	0.008018	0.038634
	Coffee cups	NBEV	0.000490	0.001960	0.010781	0.001470	0.000490	0.001960	0.001470	0.002450	0.016661	0.004410	0.021071
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL	0.000302	0.000605				0.000302			0.000907	0.000302	0.001210
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL											
	Ice cream wrappers	NBEV					0.000002	0.000002	0.000002	0.000002	0.000005	0.000005	0.000010
	Junk mail/free circulars	NBEV		0.000348	0.001218	0.000174	0.000174	0.002088	0.000348	0.000696	0.004176	0.000870	0.005046
	Newspapers & magazines	NBEV	0.002360		0.003540	0.004720		0.007080	0.001180		0.015340	0.003540	0.018880
	Other paper (including tissues)	NBEV	0.000027	0.000057	0.000074	0.000054	0.000041	0.000071	0.000044	0.000044	0.000341	0.000071	0.000412
	Packages & boxes	NBEV	0.000160	0.000240	0.001520	0.000640	0.000080	0.000640	0.000080	0.000160	0.002640	0.000880	0.003520
	Paper bags	NBEV	0.000042	0.000032	0.000180	0.000063	0.000011	0.000042		0.000021	0.000254	0.000138	0.000391
	Shopper docketts & related shopping paper (eg. lists)	NBEV		0.000022	0.000006	0.000012		0.000016	0.000020	0.000020	0.000083	0.000014	0.000097
Tickets, e.g. bus, ATM, vending machine etc.	NBEV		0.000002	0.000003	0.000001		0.000003	0.000005	0.000003	0.000015	0.000001	0.000016	
<b>TOTAL</b>			<b>0.005569</b>	<b>0.012479</b>	<b>0.037428</b>	<b>0.015932</b>	<b>0.003875</b>	<b>0.016134</b>	<b>0.008688</b>	<b>0.006455</b>	<b>0.083081</b>	<b>0.023477</b>	<b>0.106559</b>



KESAB - Litter Strategy Monitoring Wave 76 - November 2018			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	0.000002					0.000002	0.000002	0.000003
	Bags - heavier glossy typically branded carry bags	NBEV			0.000701	0.000350			0.000088		0.000613	0.000526	0.001139
	Bags - supermarket type light weight carry bags	NBEV	0.000034	0.000068	0.000441	0.000034	0.000034	0.000102	0.000102	0.000034	0.000611	0.000238	0.000849
	Bread bag tags	NBEV		0.000000	0.000000	0.000001	0.000001		0.000000	0.000001	0.000003	0.000001	0.000004
	Containers, domestic type	NBEV			0.083240	0.016648			0.016648		0.091564	0.024972	0.116536
	Containers, industrial e.g. oil	NBEV											
	Drink pouches	CDL				0.000173			0.000259		0.000345	0.000086	0.000431
	Flav. water/fruit j. drink/sports drink (non-carb), <1 litre	CDL											
	Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+	CDL			0.001201						0.001201		0.001201
	Flav. water/soft drink (carbonated), <1 litre	CDL	0.000622		0.004355						0.002488	0.002488	0.004977
	Flav. water/soft drink (carbonated), 1 litre+	CDL			0.003308		0.001654	0.001654			0.001654	0.004962	0.006616
	Flavoured milk, <1 litre	CDL		0.001065	0.004262	0.000533			0.000533		0.005860	0.000533	0.006392
	Flavoured milk, 1 litre+	BEV			0.002137						0.002137		0.002137
	Fruit juice, <1 litre	CDL			0.000400		0.000400				0.000800		0.000800
	Fruit juice, 1 litre+	BEV			0.004273	0.002137					0.004273	0.002137	0.006410
	Lollipop sticks	NBEV	0.000001	0.000003		0.000001	0.000002	0.000002	0.000002	0.000001	0.000008	0.000002	0.000010
	Other plastic	NBEV	0.000010	0.000028	0.000029	0.000023	0.000011	0.000024	0.000014	0.000013	0.000128	0.000023	0.000150
	Packing tape & straps	NBEV			0.000003	0.000002			0.000001	0.000000	0.000005	0.000001	0.000006
	Plain water (carbonated or non-carb), <1 litre	CDL	0.000788	0.000788	0.002364	0.000788	0.000788				0.003940	0.001576	0.005515
	Plain water (carbonated or non-carb), 1 litre+	CDL	0.001542		0.001542						0.003083		0.003083
	Plastic bottle tops	NBEV	0.000056	0.000104	0.000128	0.000072	0.000048	0.000072	0.000048	0.000040	0.000488	0.000080	0.000568
	Sacks - sheeting - other bags	NBEV		0.000001	0.000003	0.000000			0.000000		0.000003	0.000001	0.000004
	Snack bags & confectionery wrappers	NBEV	0.000063	0.000125	0.000274	0.000102	0.000117	0.000172	0.000070	0.000125	0.000822	0.000227	0.001049
	Spoons/cutlery	NBEV		0.000029	0.000067	0.000010	0.000010		0.000019	0.000019	0.000106	0.000048	0.000154
	Straws	NBEV	0.000008	0.000033	0.000058	0.000033	0.000029	0.000025	0.000021	0.000029	0.000177	0.000058	0.000235
	Styrene foam boxes, sheets, etc.	NBEV			0.000413	0.000263	0.000038			0.000038	0.000638	0.000113	0.000750
	Take away & cups	NBEV	0.000414	0.001242	0.003312	0.001242	0.001035	0.000828	0.000414	0.000621	0.006418	0.002691	0.009109
White milk, all sizes	BEV			0.004273						0.002137	0.002137	0.004273	
Wine cask bladders	BEV				0.000460						0.000460	0.000460	
<b>TOTAL</b>		<b>0.003538</b>	<b>0.003486</b>	<b>0.116784</b>	<b>0.022870</b>	<b>0.004166</b>	<b>0.020319</b>	<b>0.000778</b>	<b>0.000920</b>	<b>0.129502</b>	<b>0.043360</b>	<b>0.172862</b>	
<b>GRAND TOTAL</b>		<b>0.010498</b>	<b>0.029274</b>	<b>0.252402</b>	<b>0.175347</b>	<b>0.008986</b>	<b>0.087120</b>	<b>0.010886</b>	<b>0.009059</b>	<b>0.451892</b>	<b>0.131679</b>	<b>0.583571</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>	

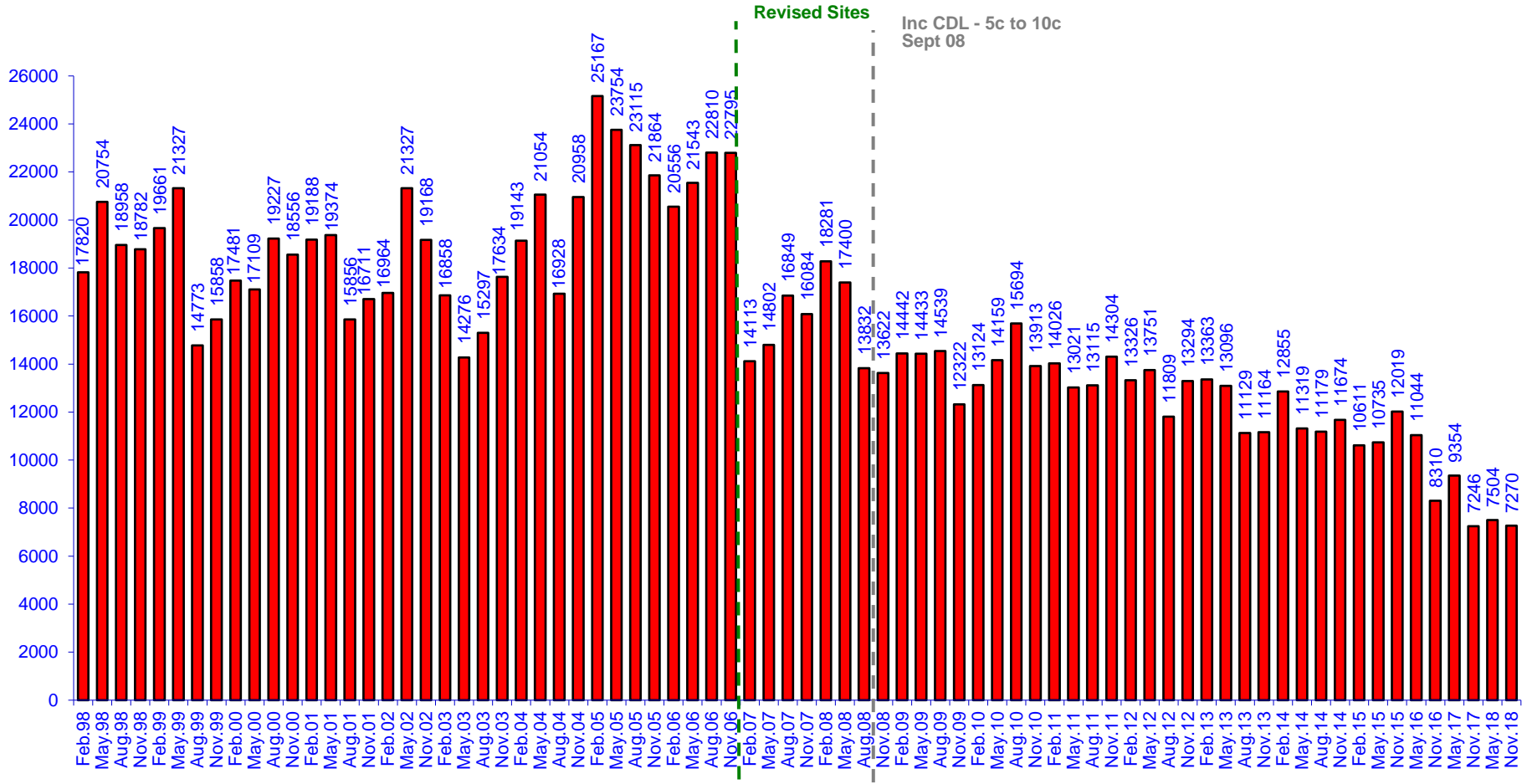
Volumes within material categories across all 151 sites including either 11 original or 11 revised sites	Wave 32				Wave 33				Wave 34				Wave 35			
	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old	Old	New	Diff	New as % of Old
Glass	0.11965	0.09027	0.02939	<b>0.75438</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>	

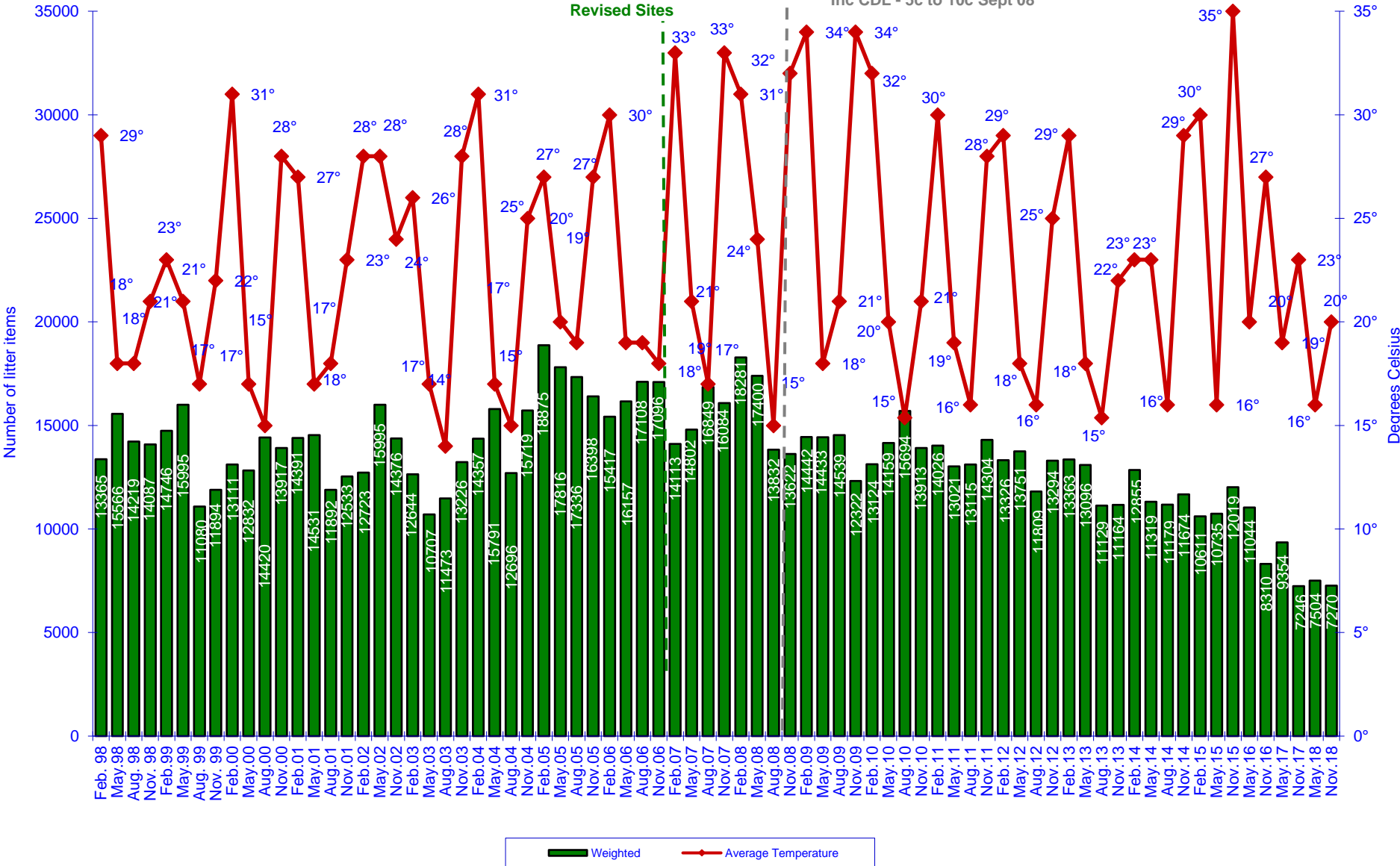
Proportions of total volume within site type across all 151 sites including either 11 original or 11 revised sites		Residential	Beach	Industrial	Car Park	Shopping Centre	Retail	Recreational Park	Highway	Metropolitan	Regional	TOTAL
Wave 32	Old	0.05441	0.02998	0.57970	0.13090	0.01177	0.01877	0.02922	2.47428	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

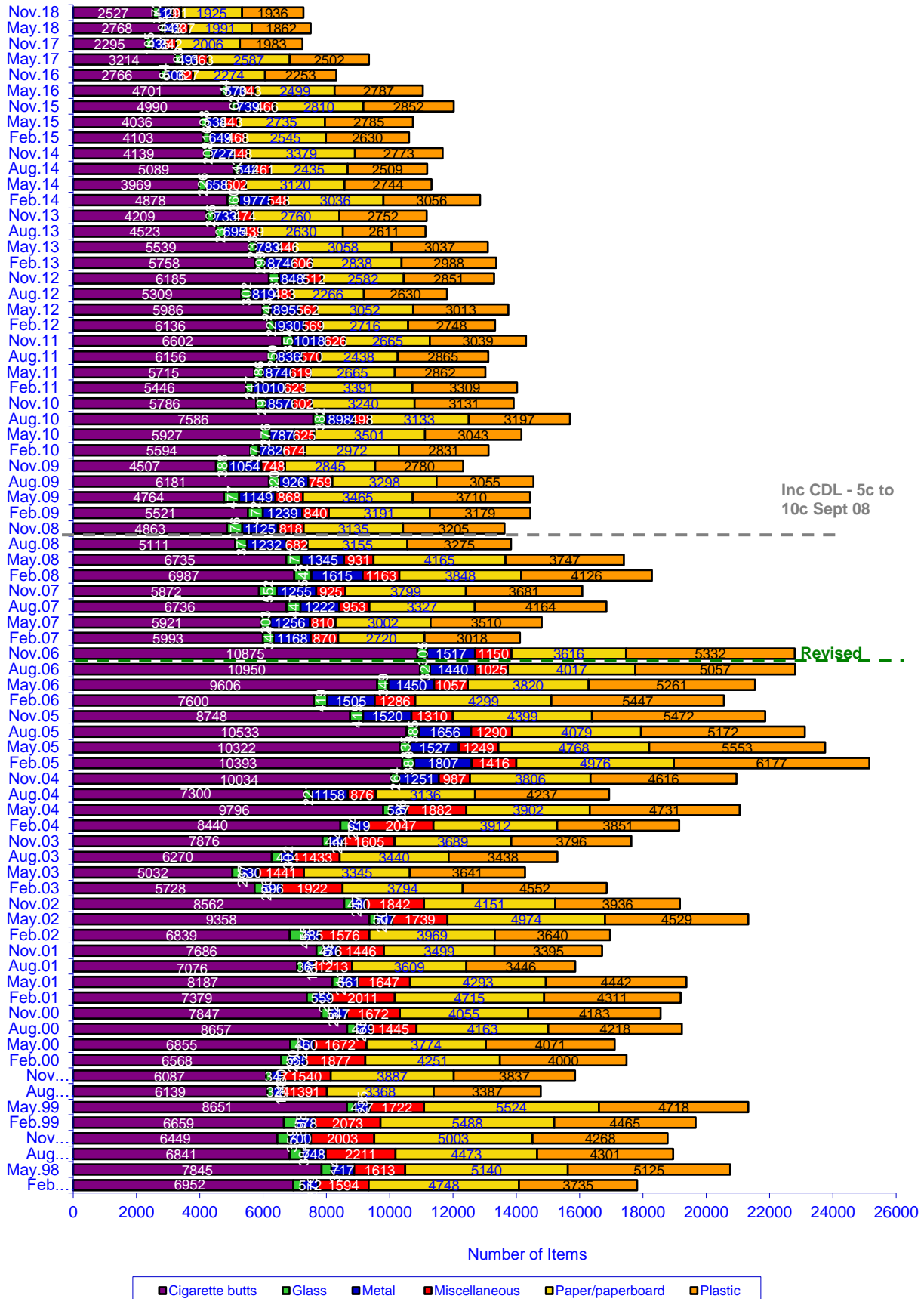
**Total Litter - Number of Items**



Weather Temperature and Total Number of Litter Items

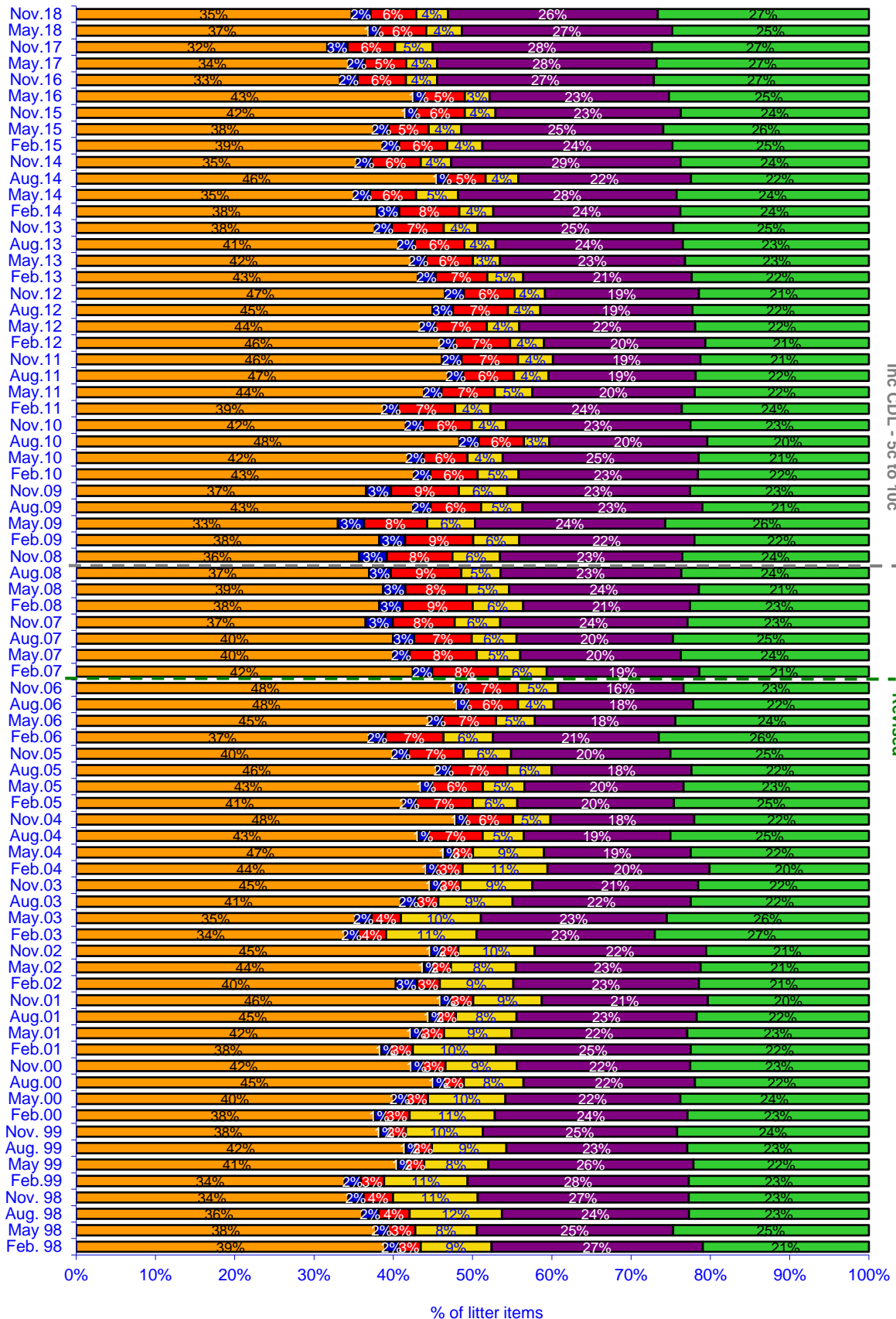


### Number of Litter Items by Material Type



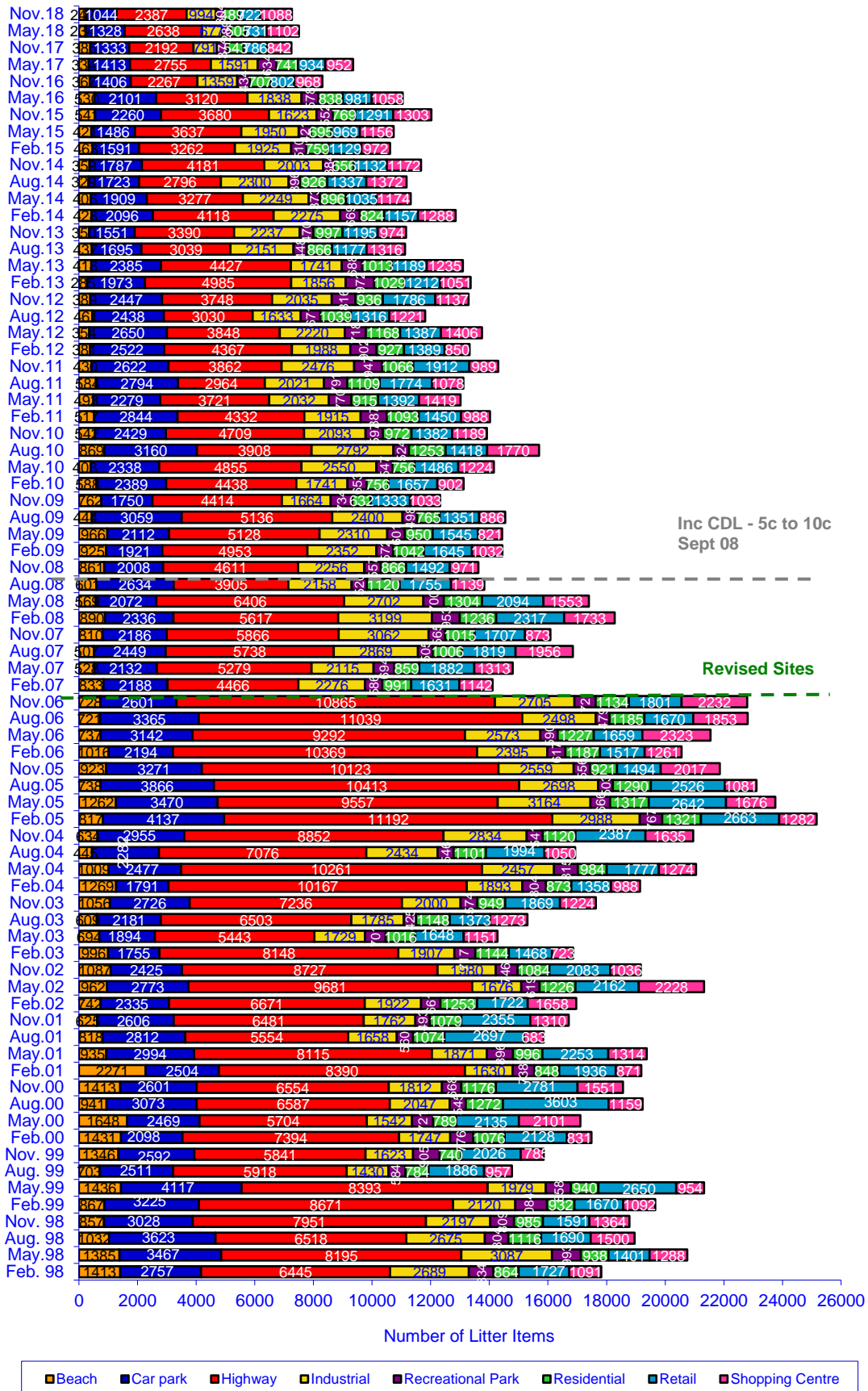


Proportion of Total Litter Stream by Material Type

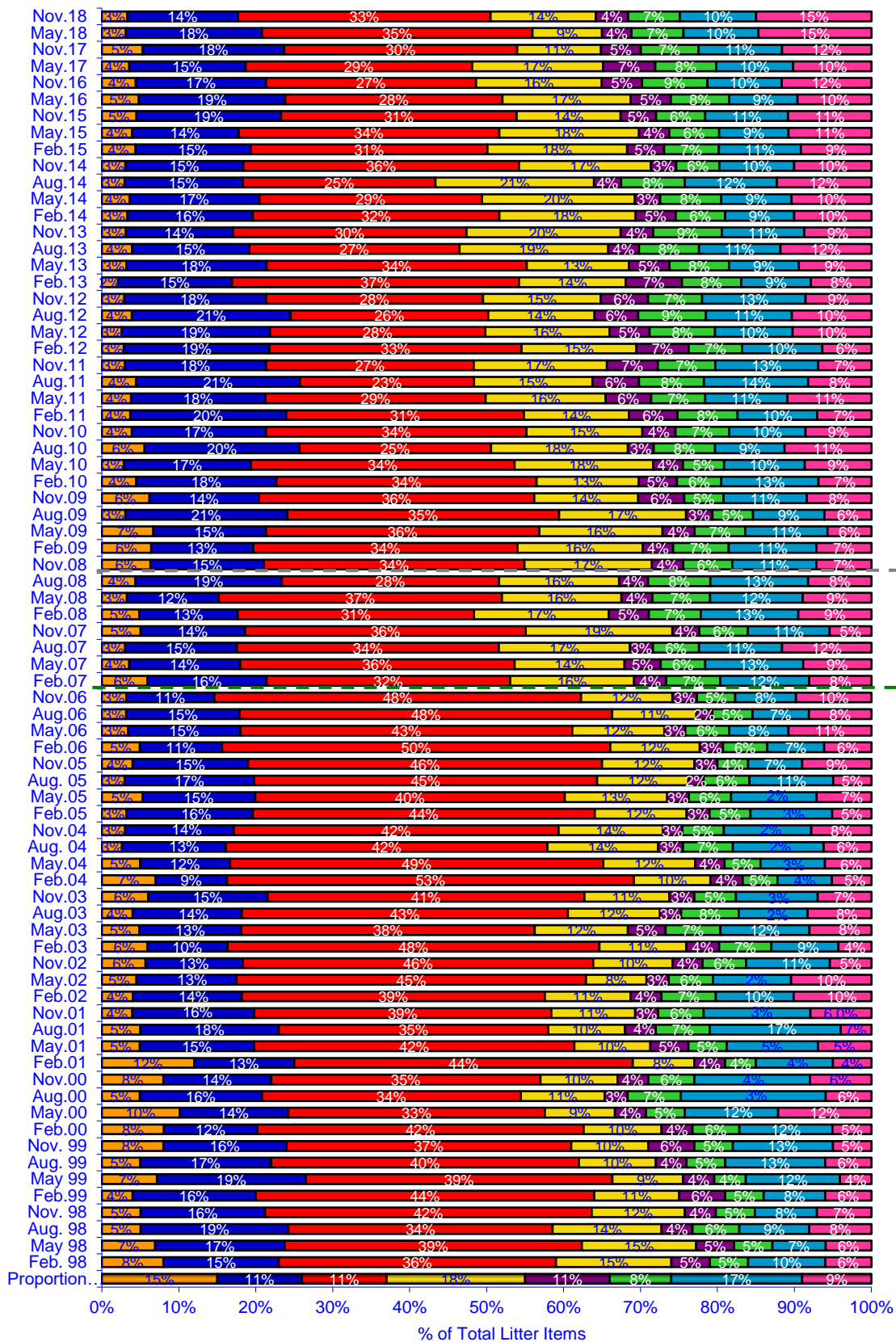


■ Cigarette butts ■ Glass ■ Metal ■ Miscellaneous ■ Paper/paperboard ■ Plastic

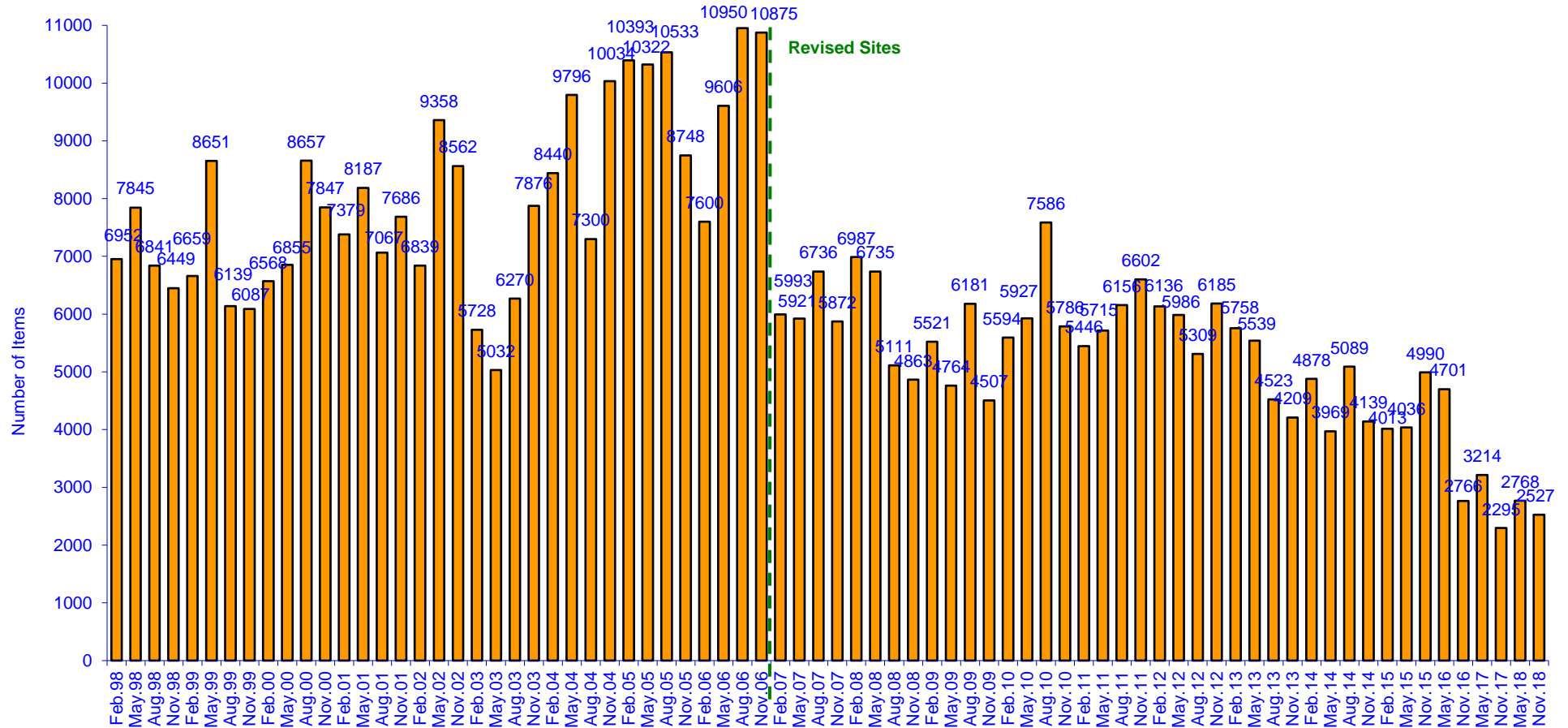
### Number of Litter Items by Site Type



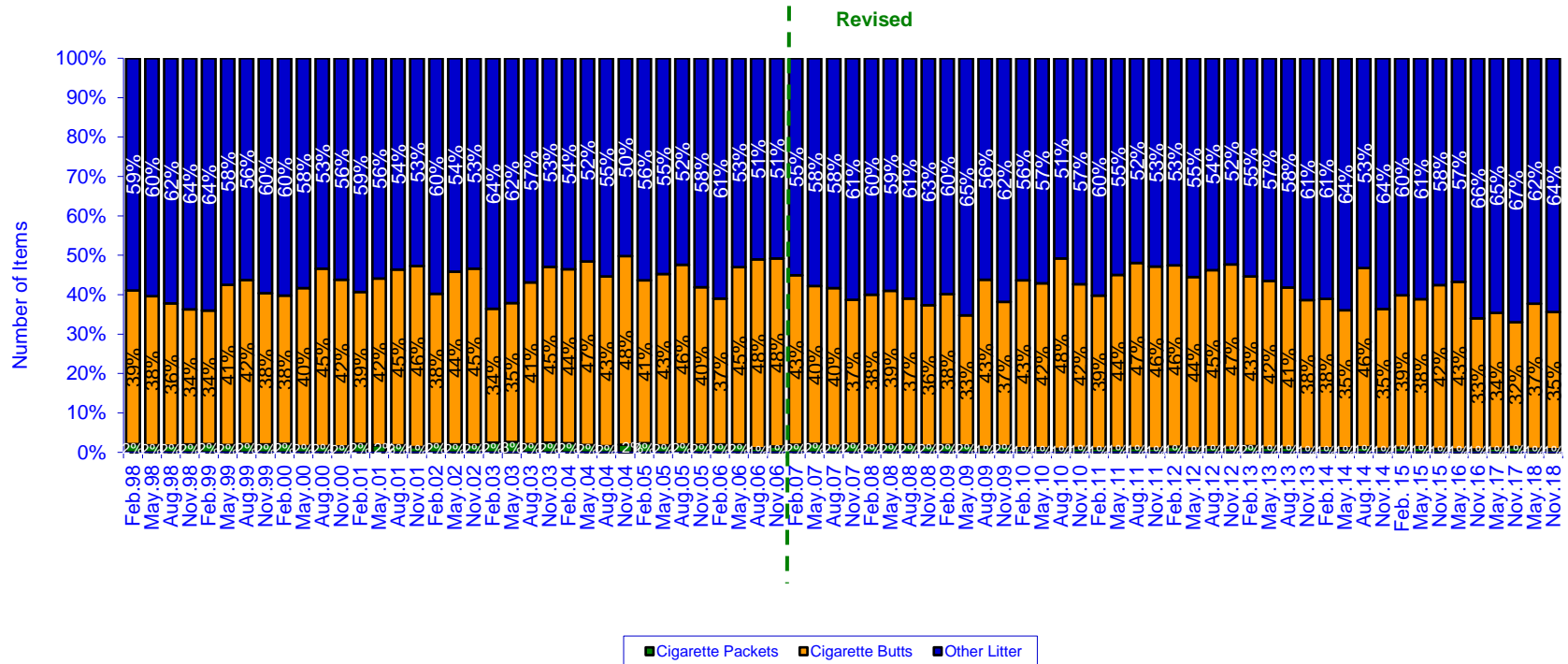
### Proportion of Total Litter by Site Type



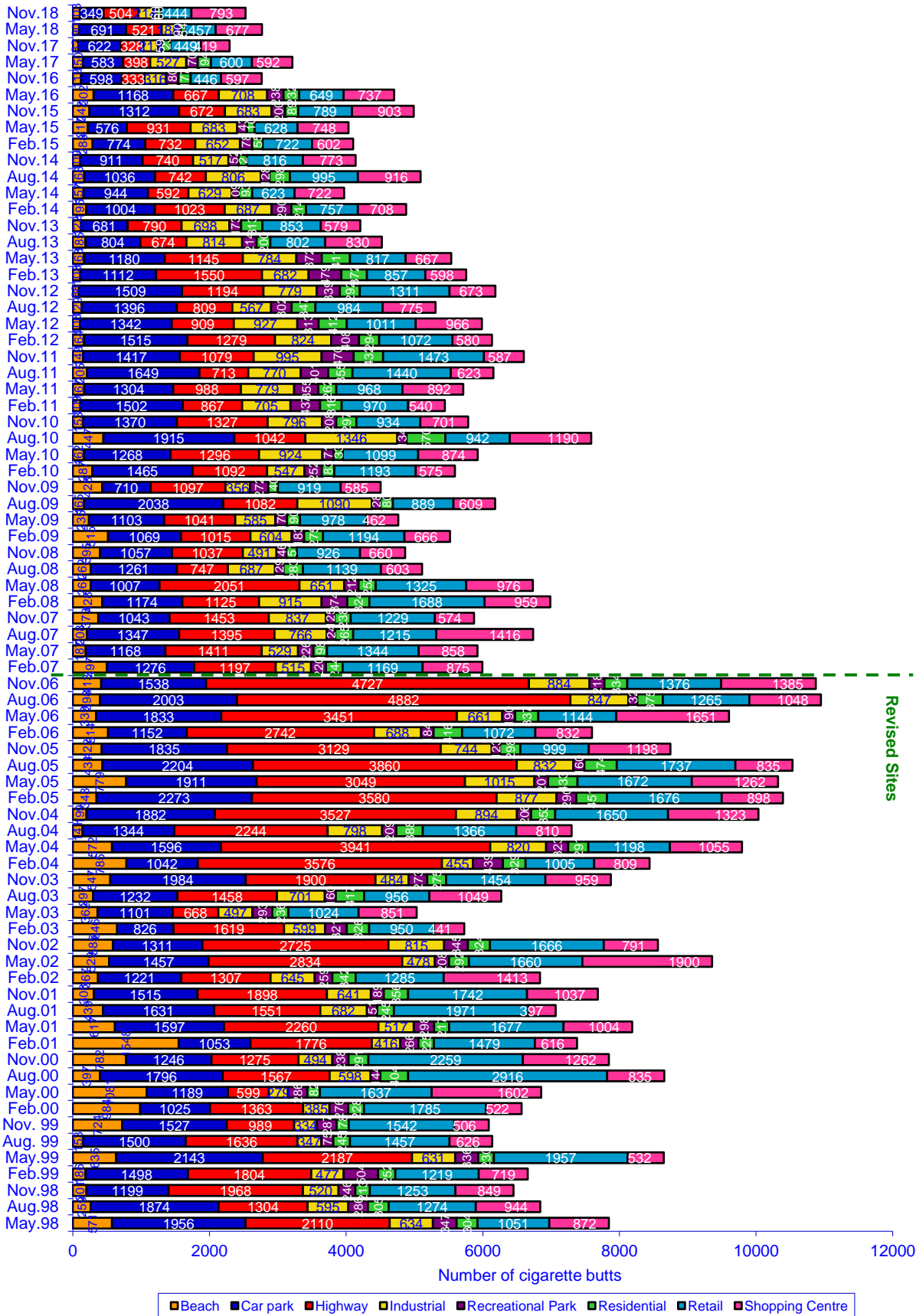
### Total Number of Cigarette Butts



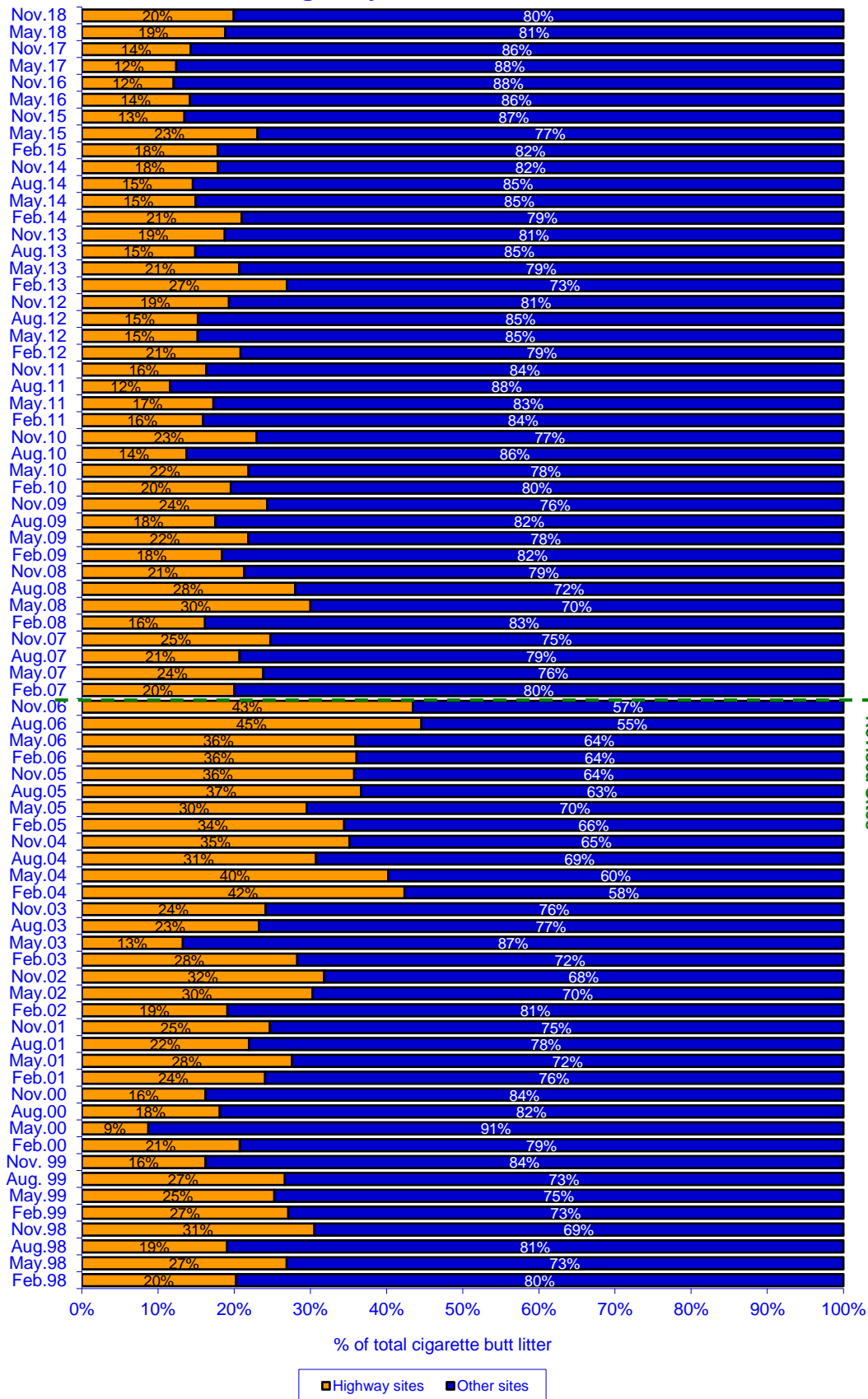
### Proportion of Cigarette Related Litter Items in Total Litter Stream



Number of Cigarette Butts by Site Type



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

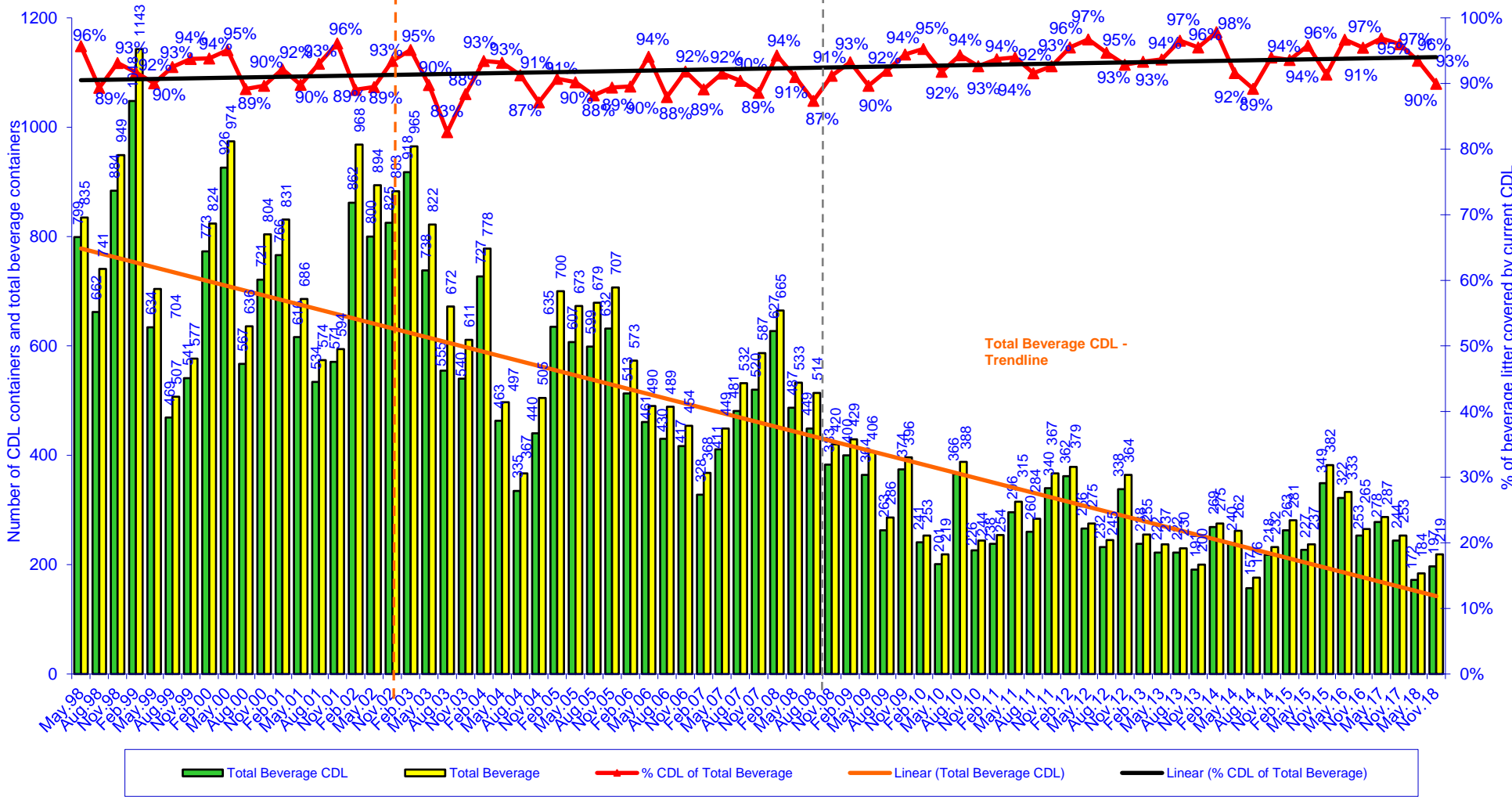




**Proportion of Beverage Litter Covered By Current CDL & Total Number of Beverage Litter Items & Containers Covered By Current CDL**

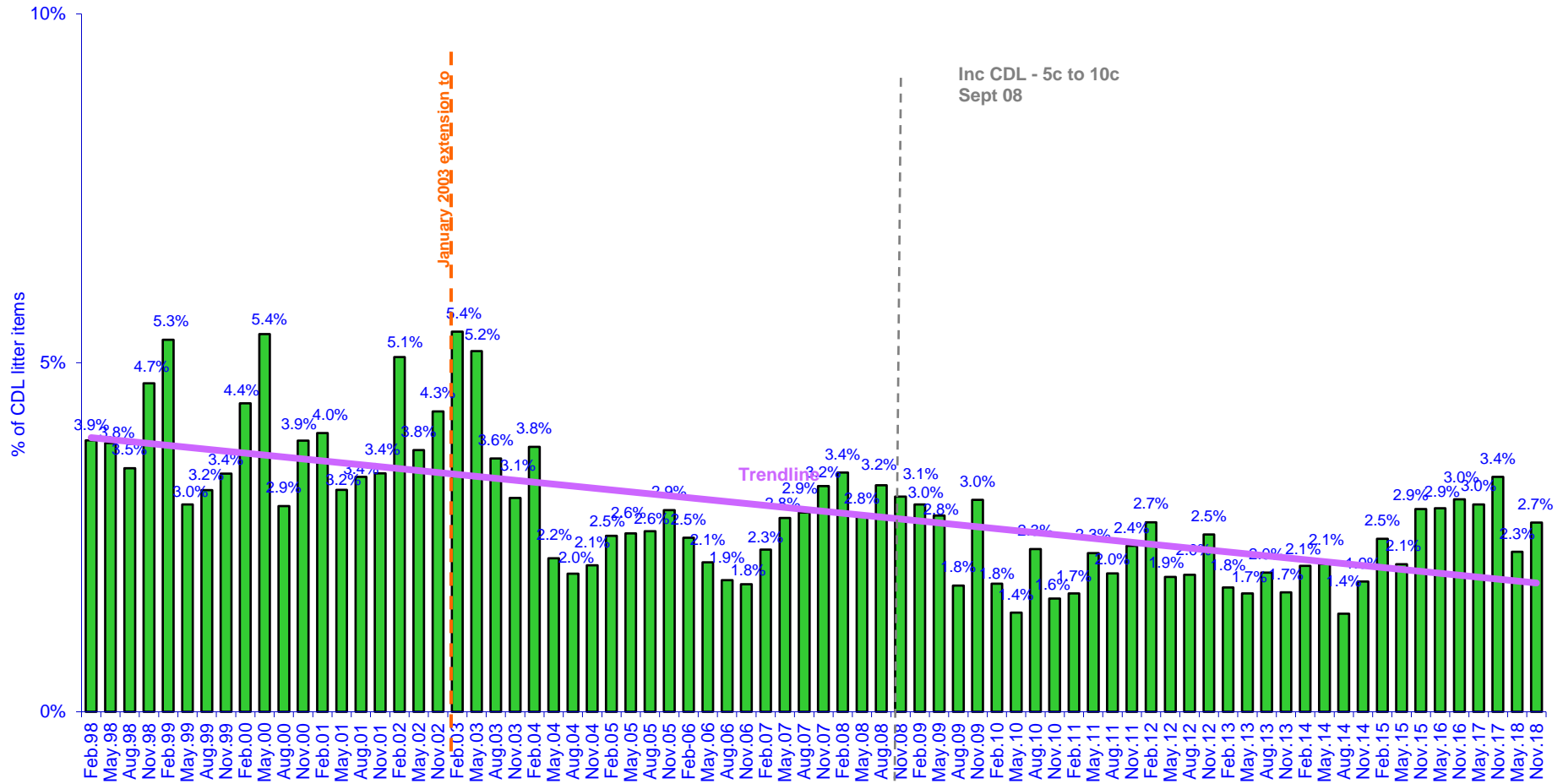
January 2003 extension to CDL

Inc CDL - 5c to 10c  
Sept 08

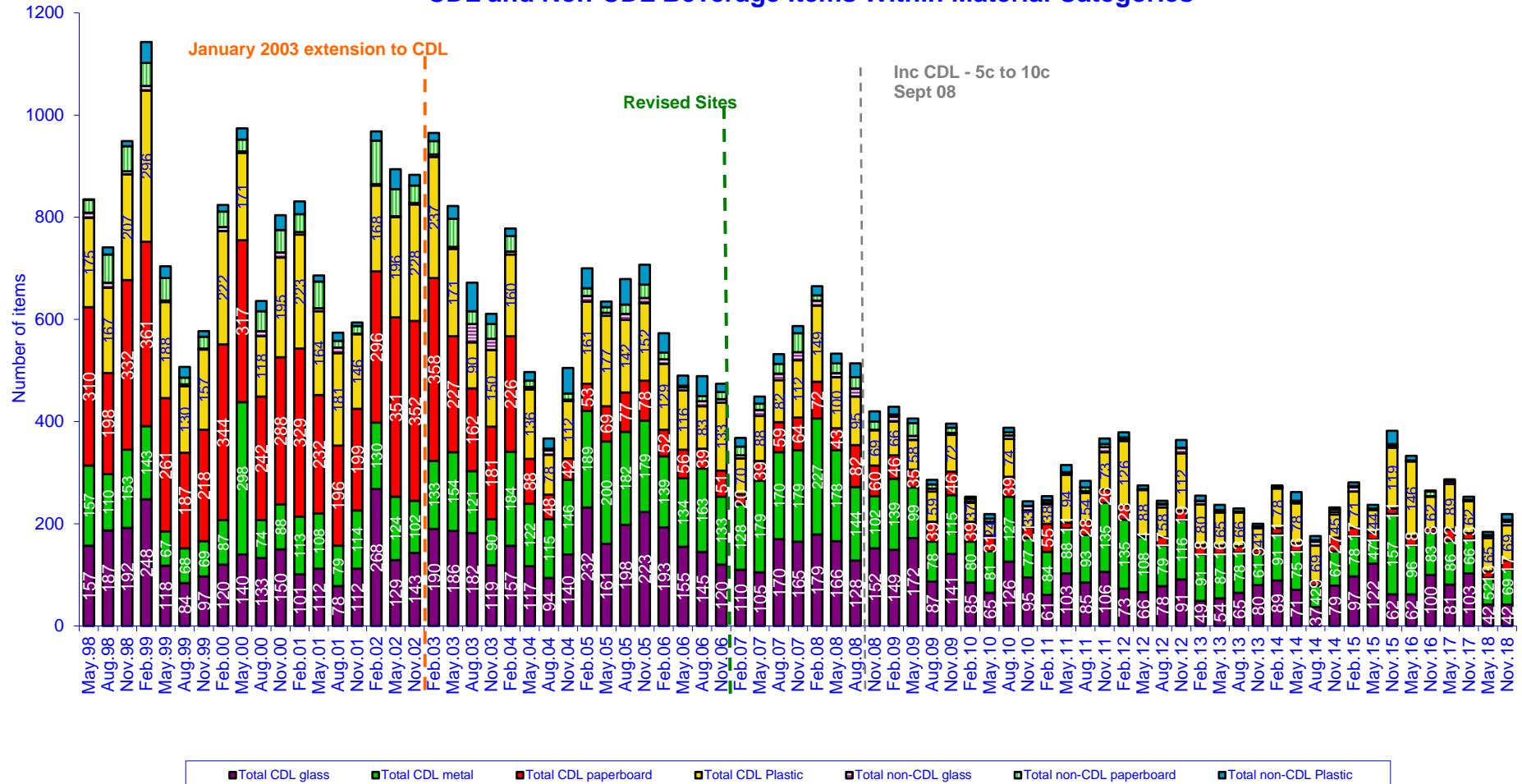




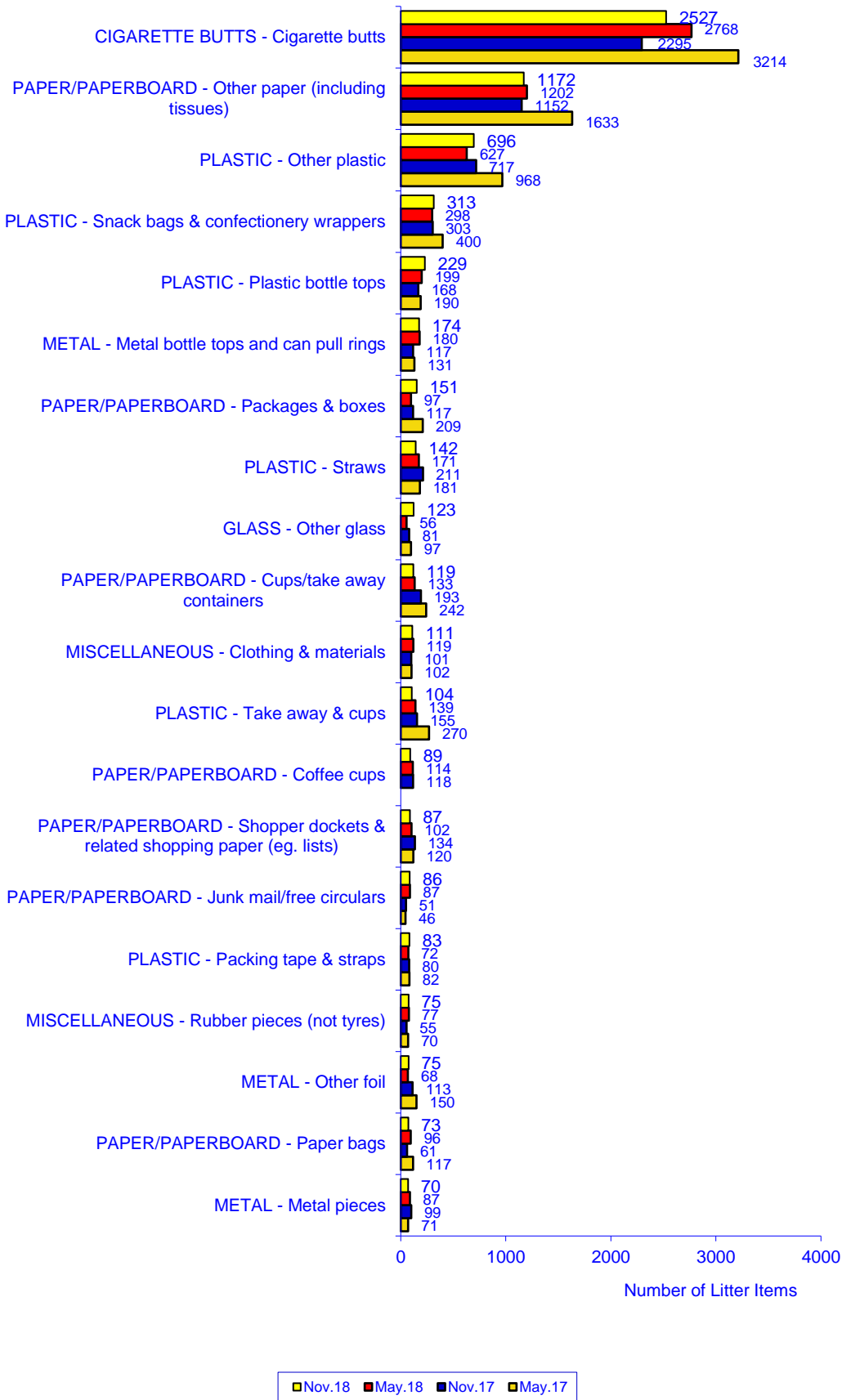
### Proportion of Current CDL Litter Items in Total Litter Stream



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

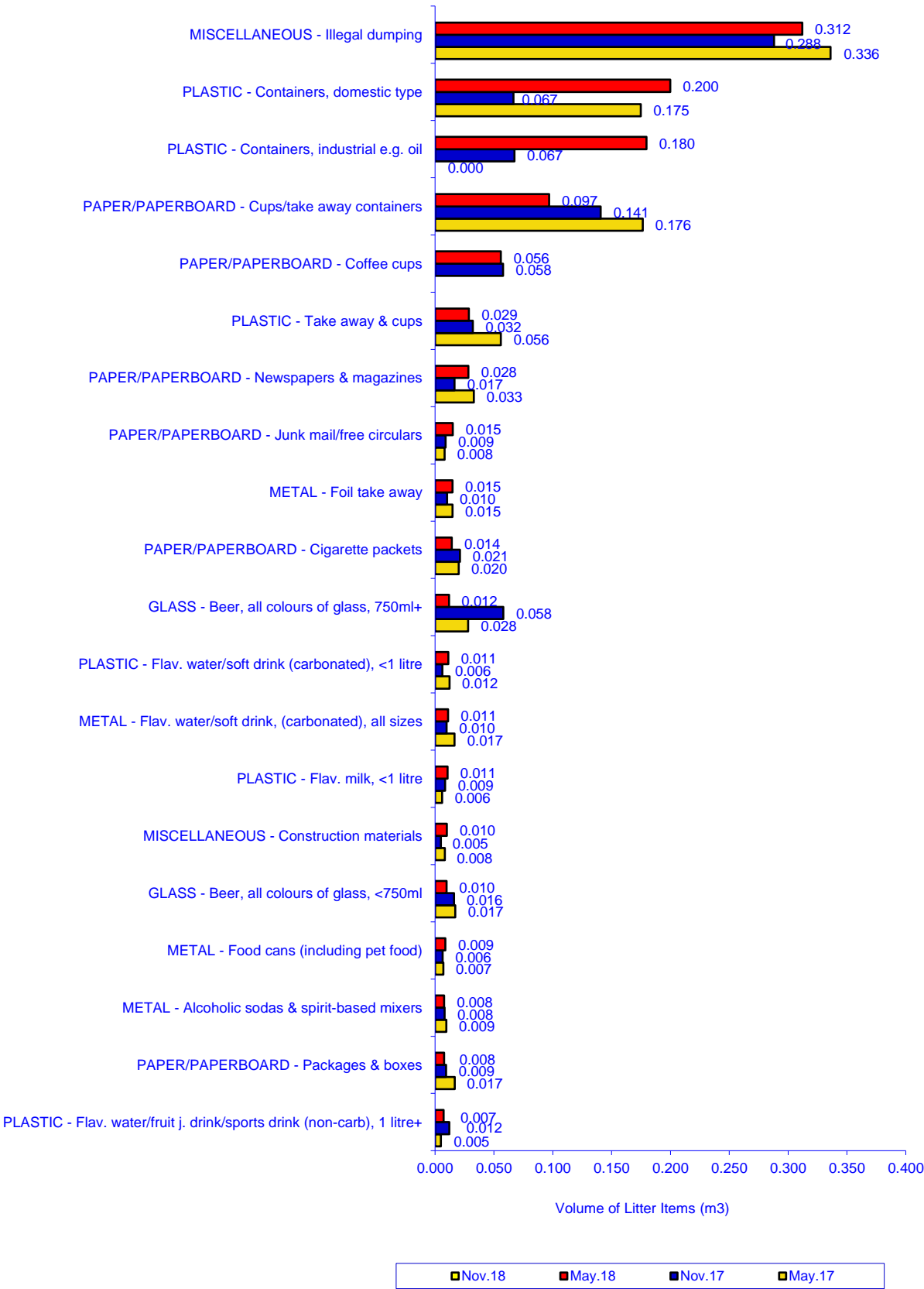


**Top 20 Litter Items - Highest Counts**

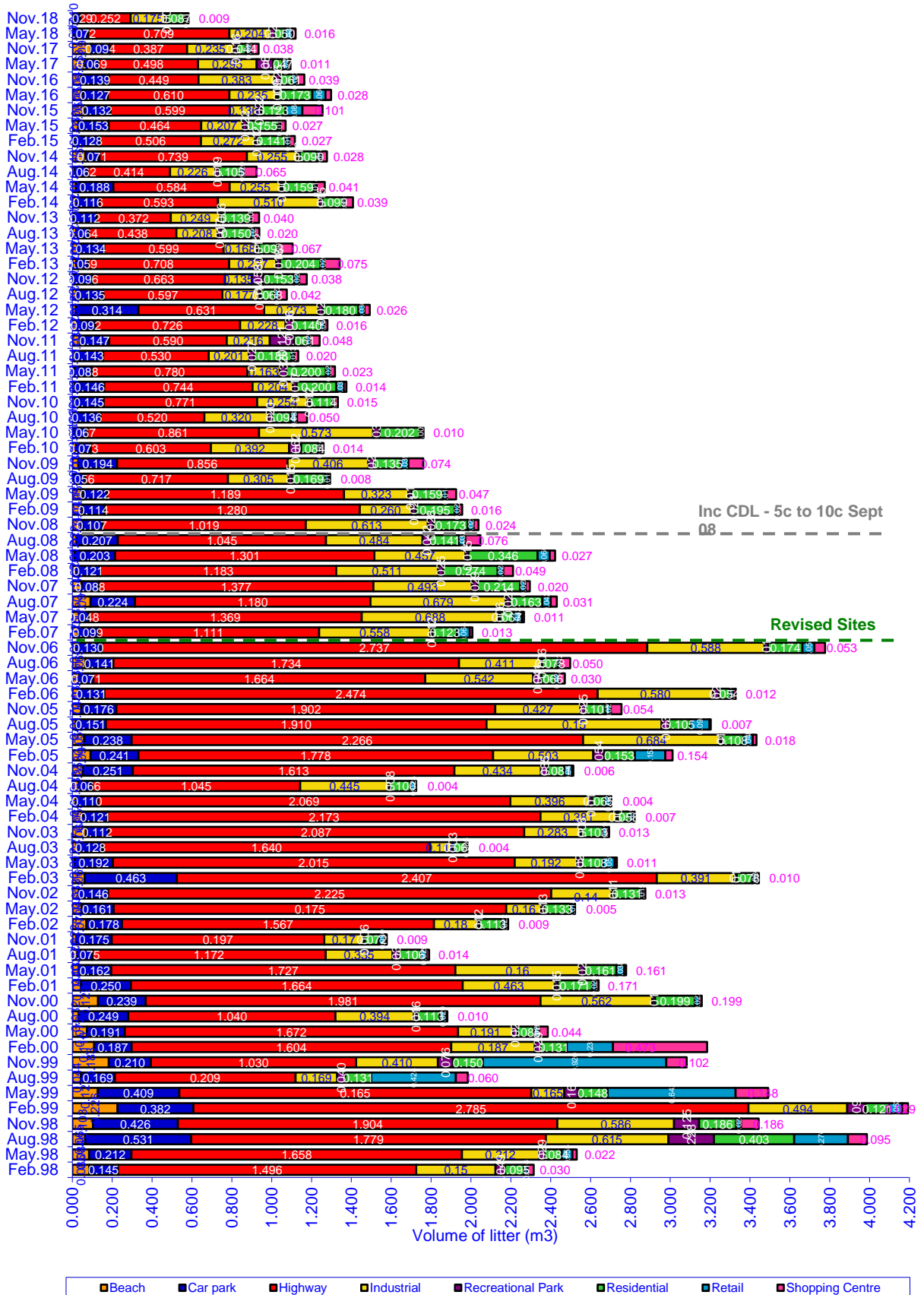


# Unweighted Tracking Graphs - Volume

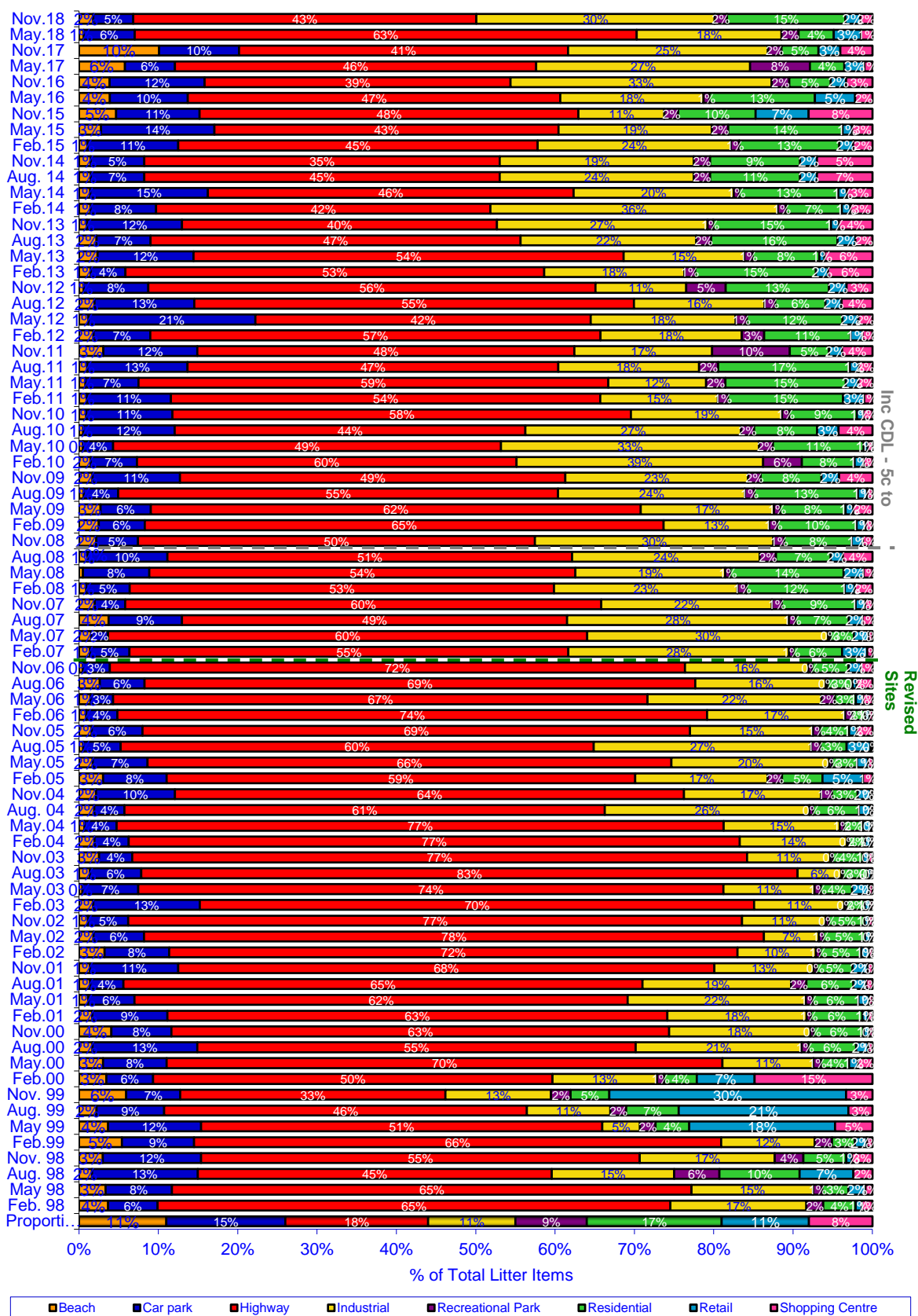
### Top 20 Litter Items by Volume



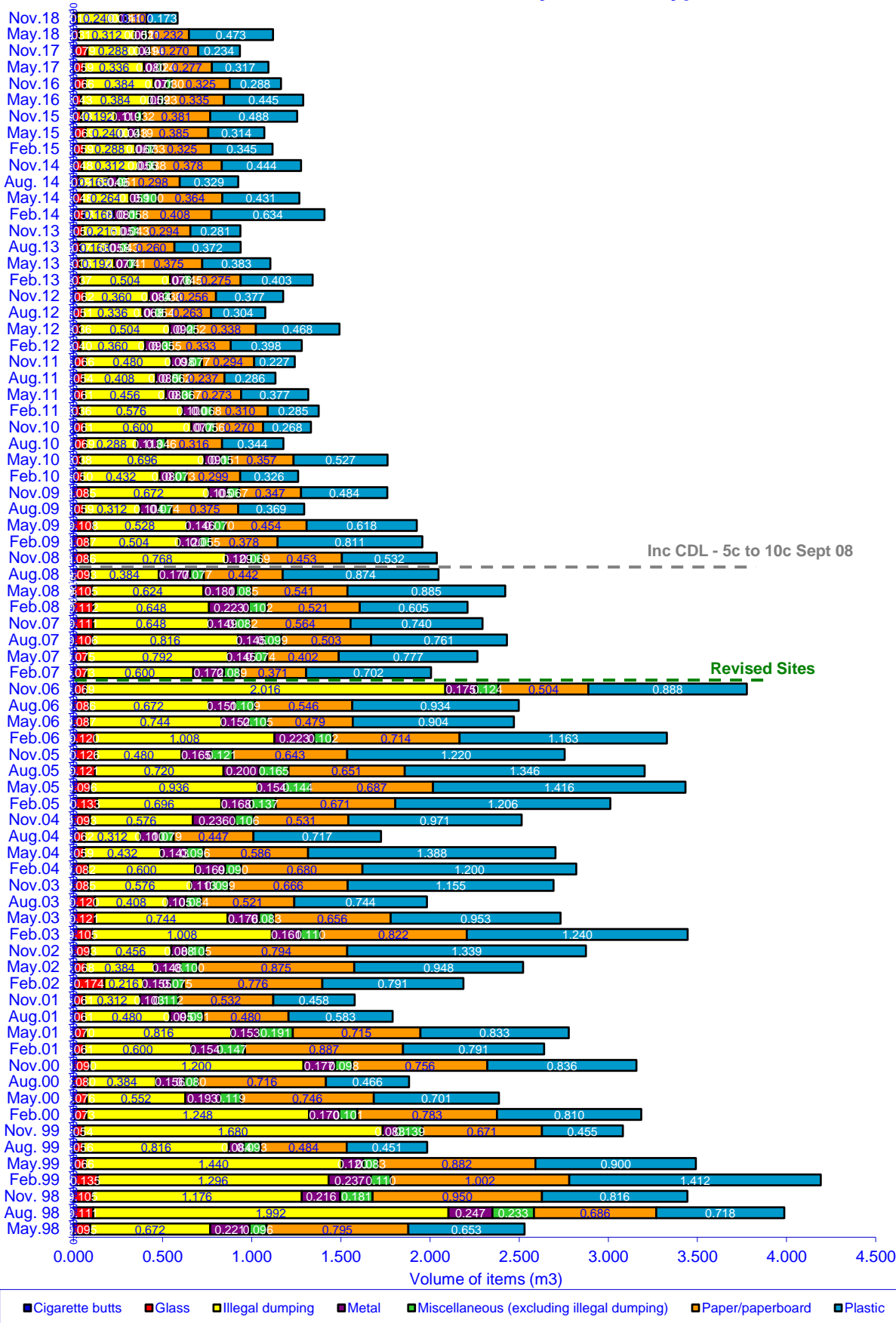
### Volume of Litter by Site Type



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



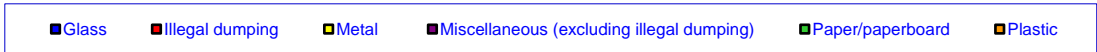
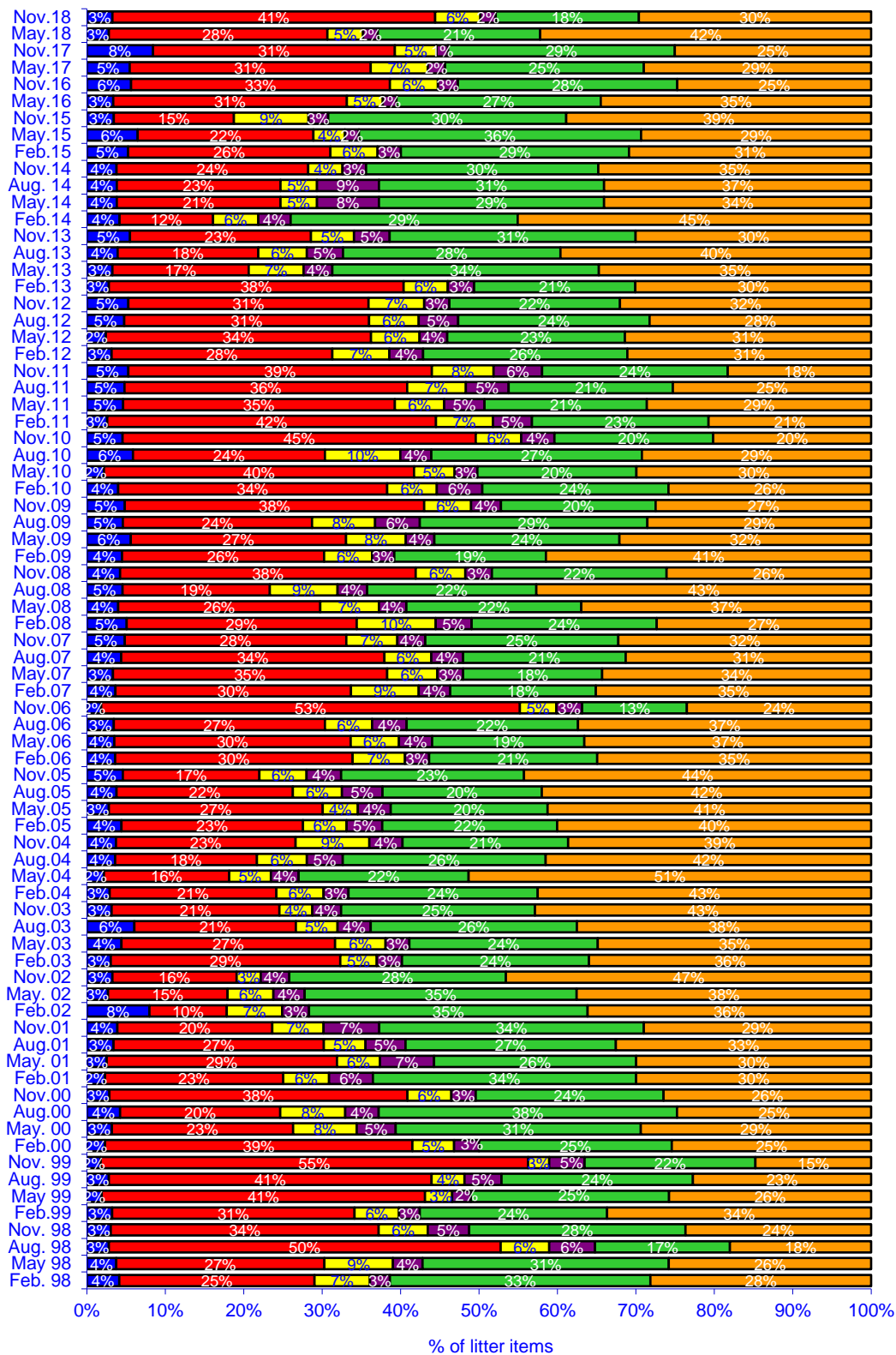
### Volume of Litter Items by Material Type



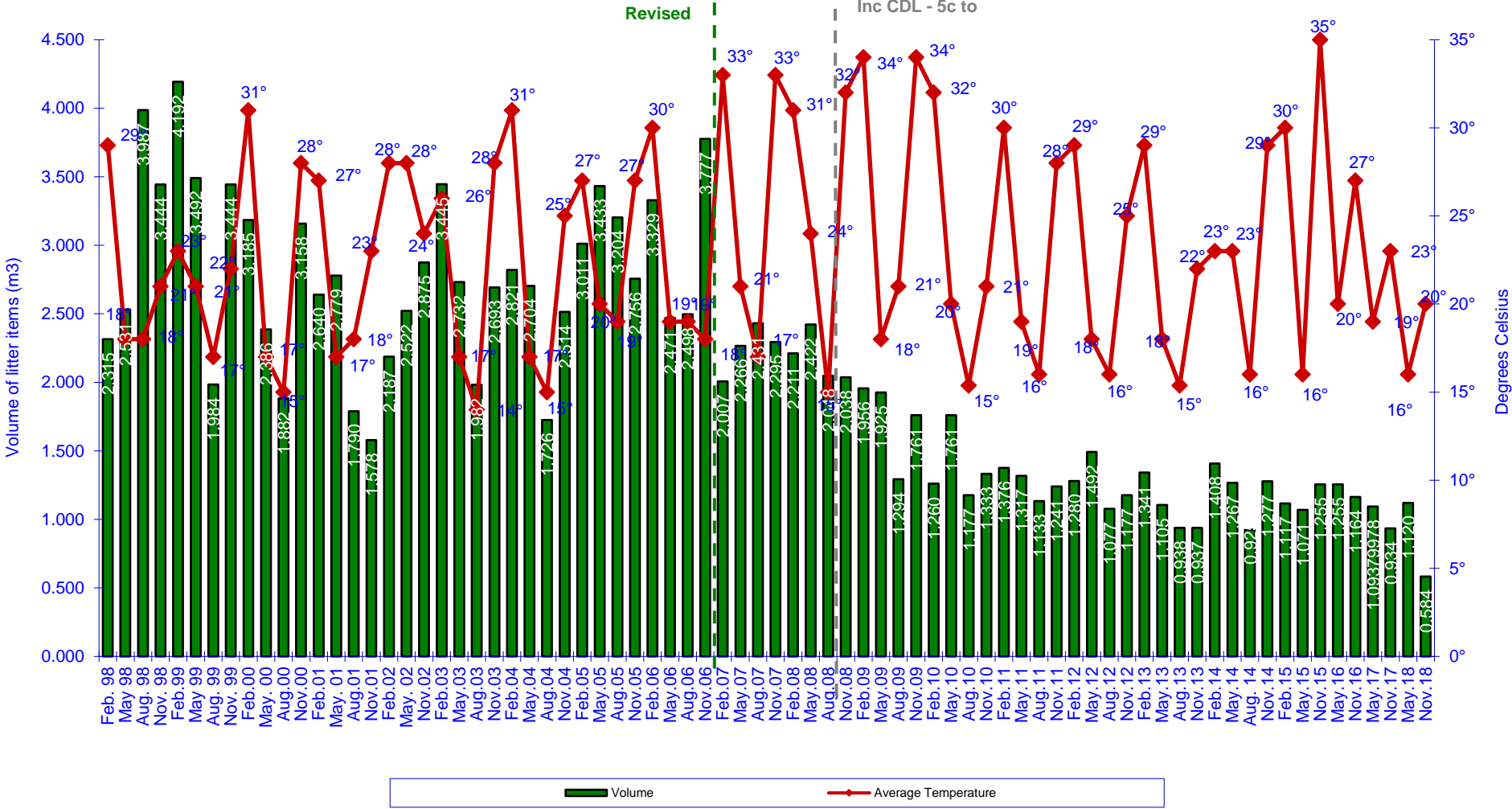


**Proportion of Total Litter Volume by Material Type**

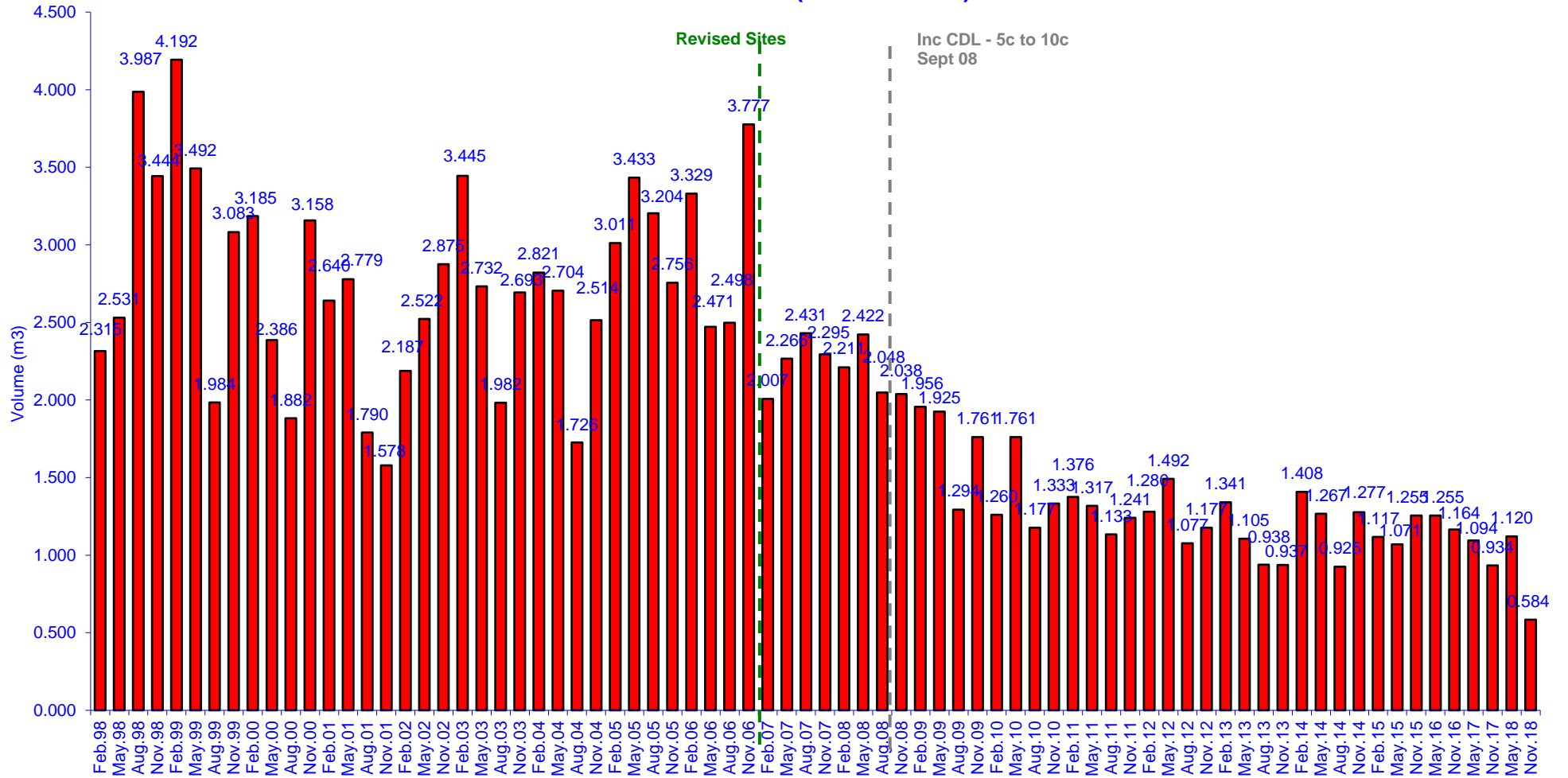
- Please note that cigarette butts are not included as the volumes of such are consistently negligible



### Weather Temperature and Total Volume of Litter Items

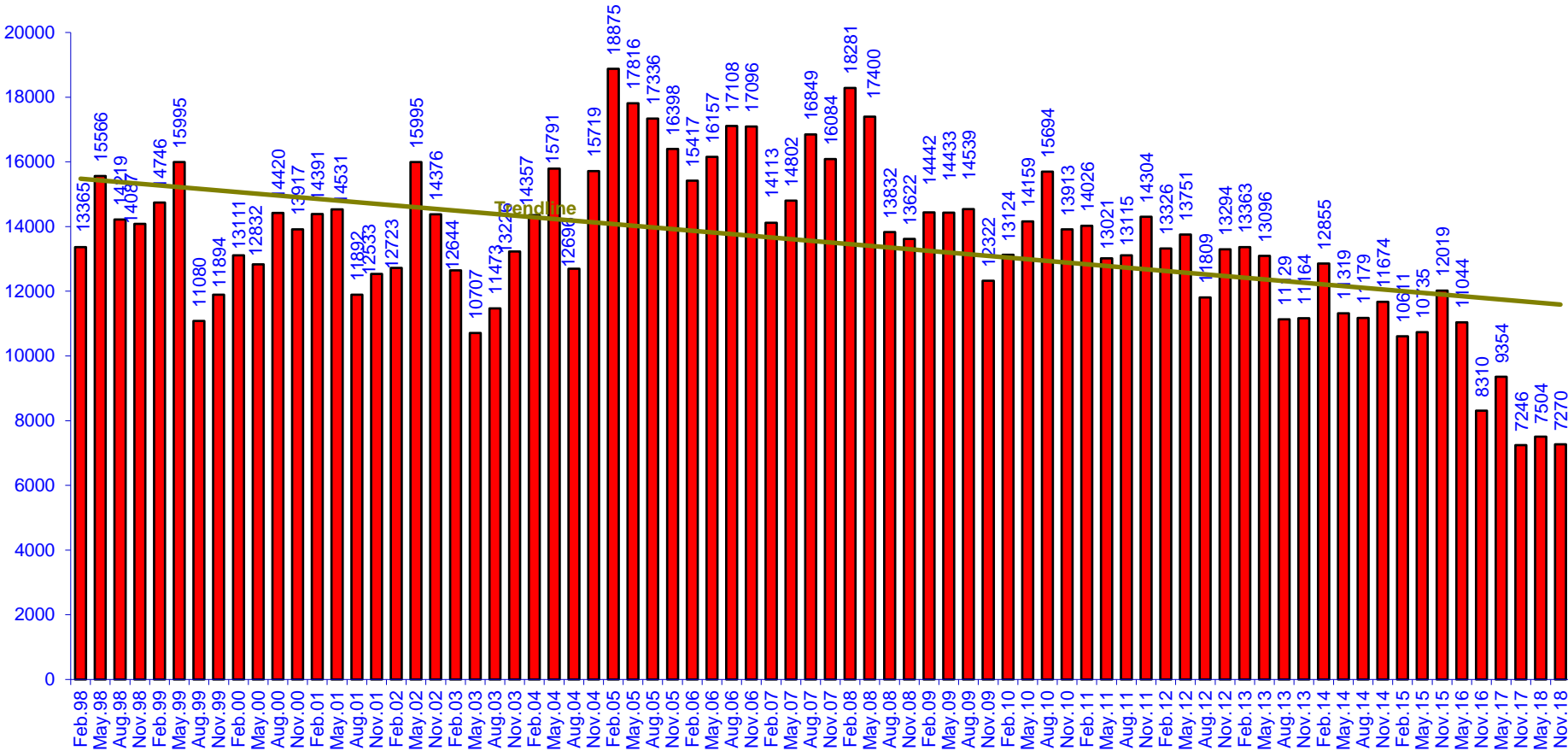


### Total Volume (Cubic Metres) of Litter

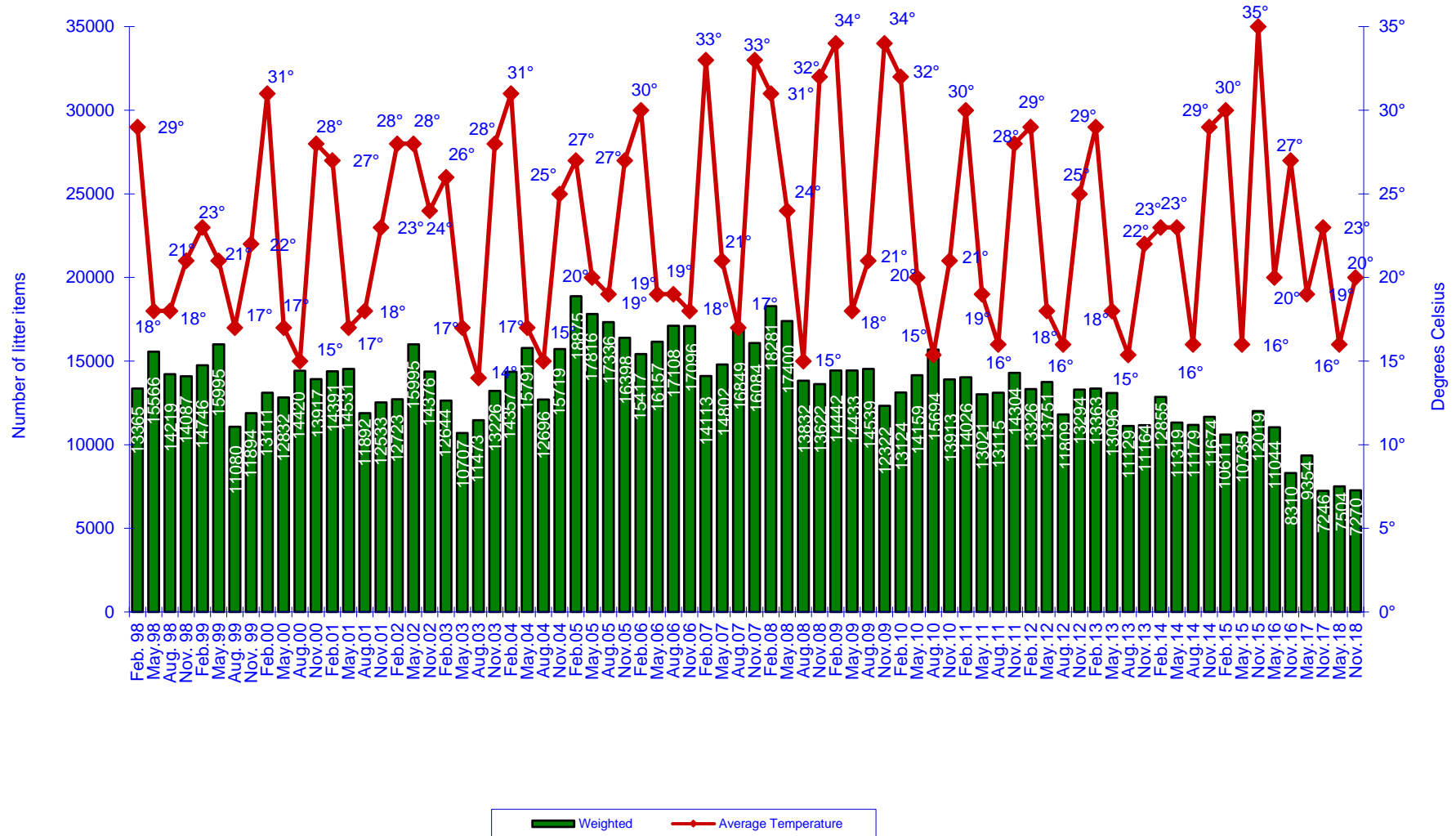


# Weighted Tracking Graphs - Items

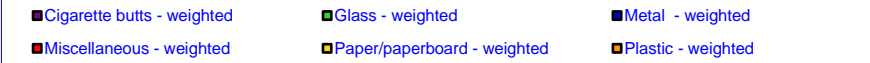
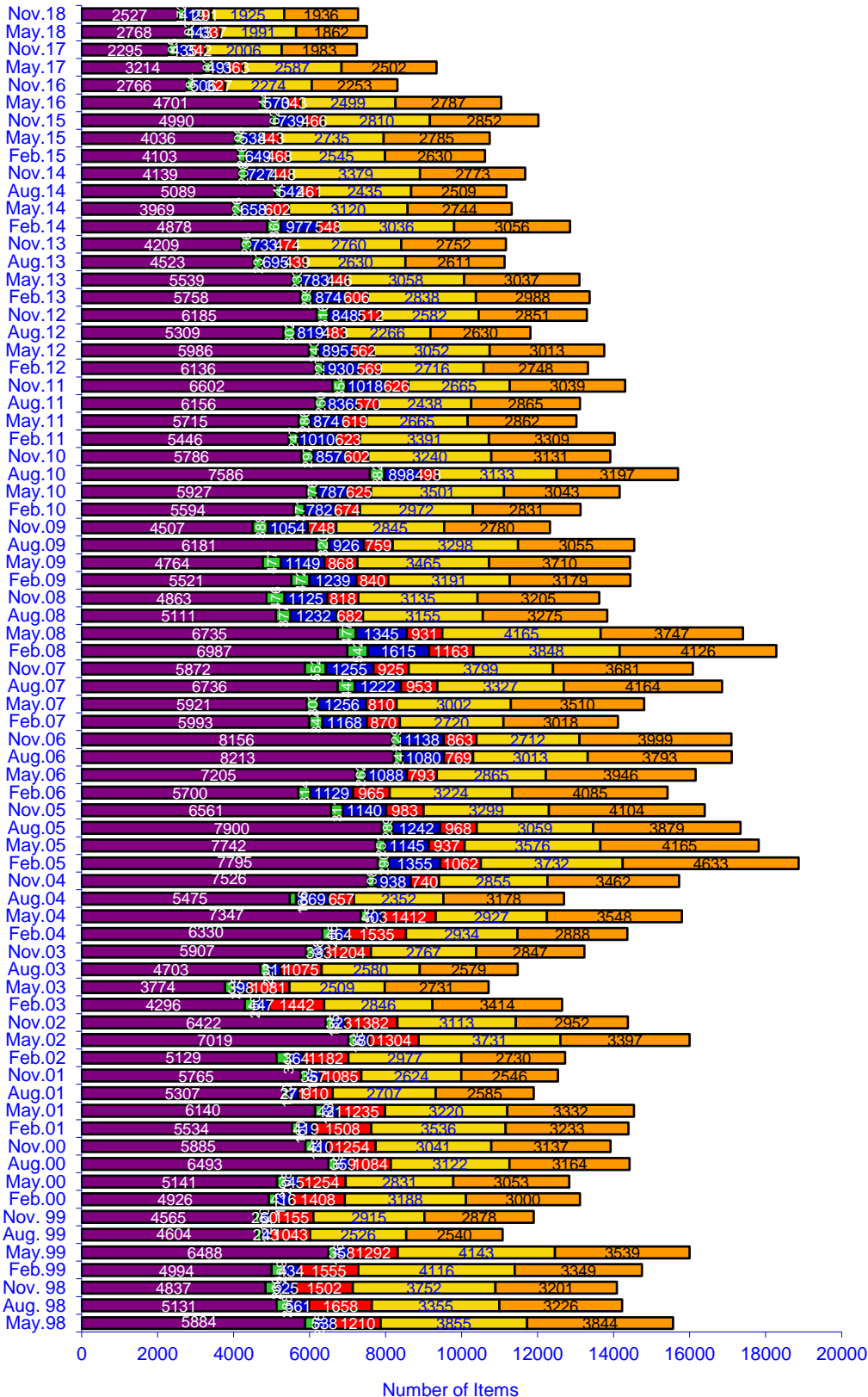
Total Litter - Number of Items - Weighted



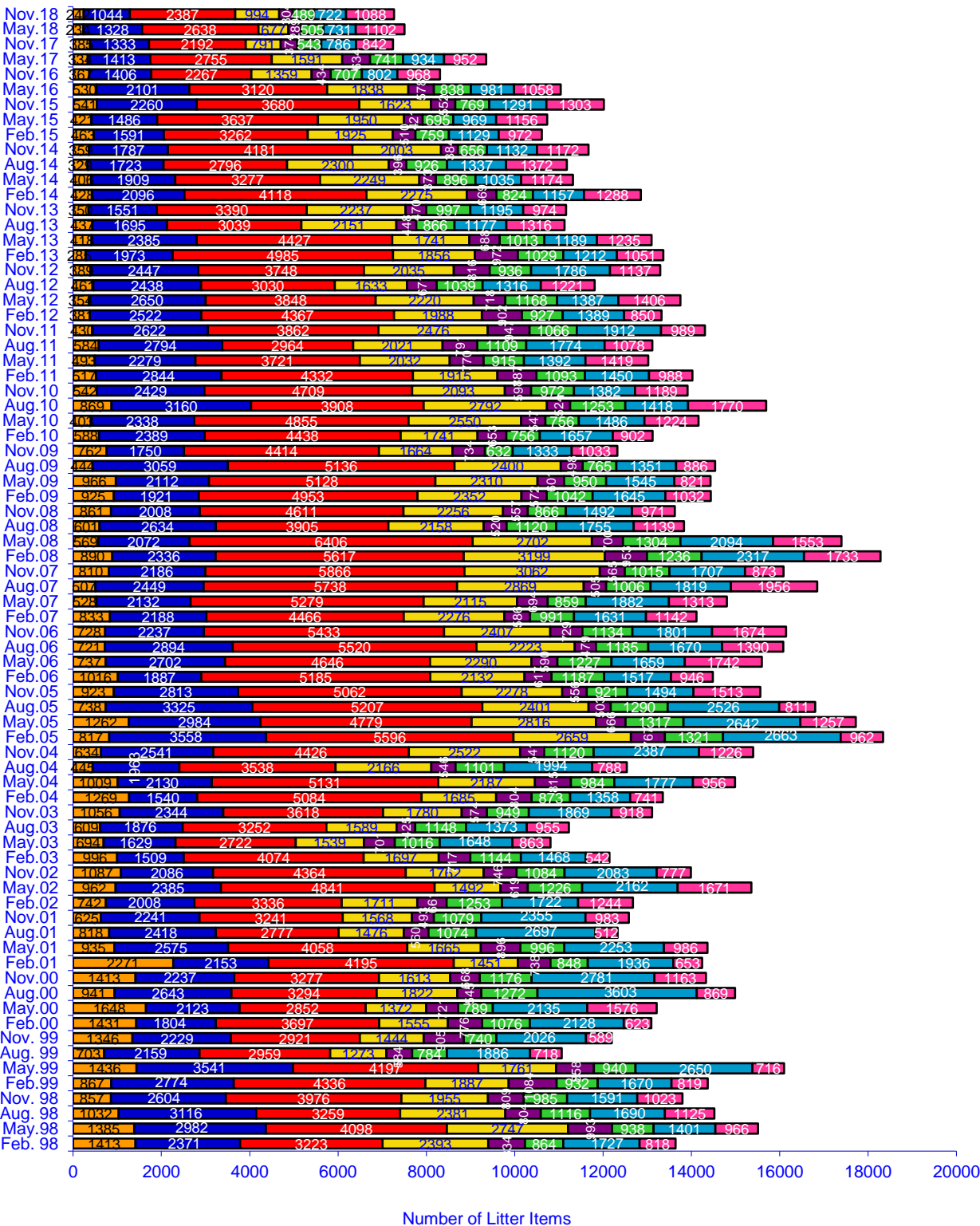
### Weather Temperature and Total Number of Litter Items - Weighted



Number of Litter Items by Material Type - Weighted

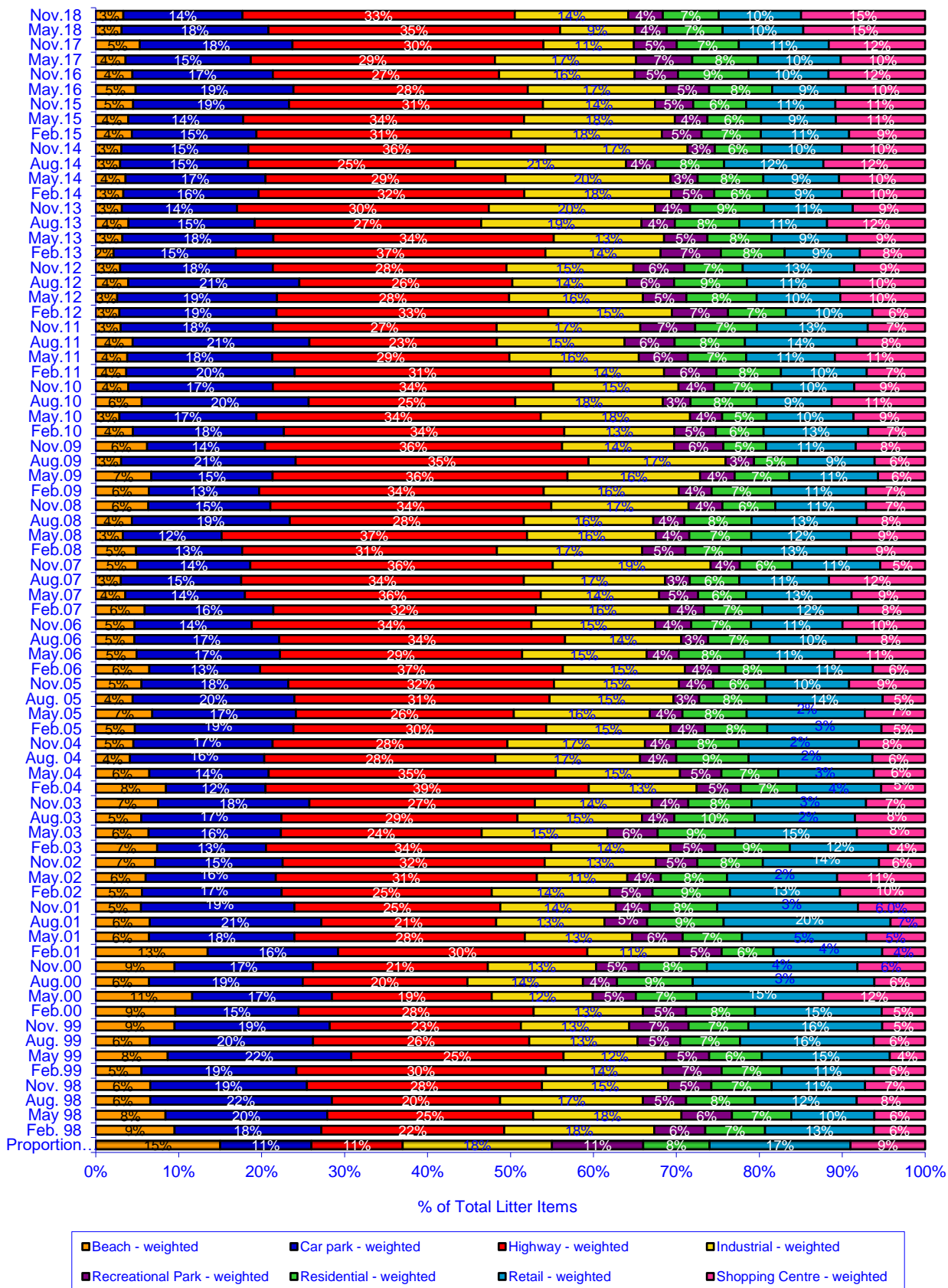


Number of Litter Items by Site Type - Weighted

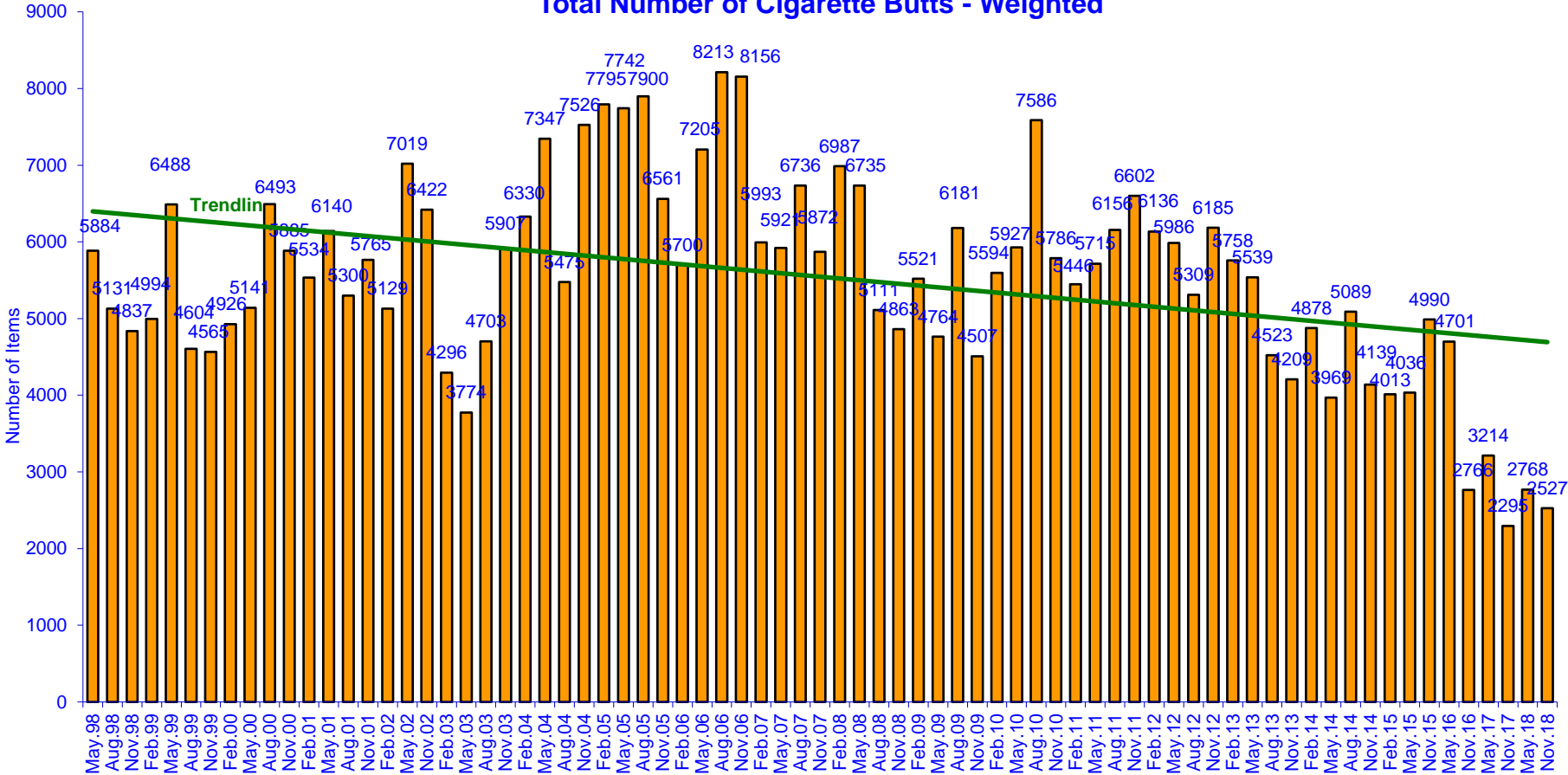




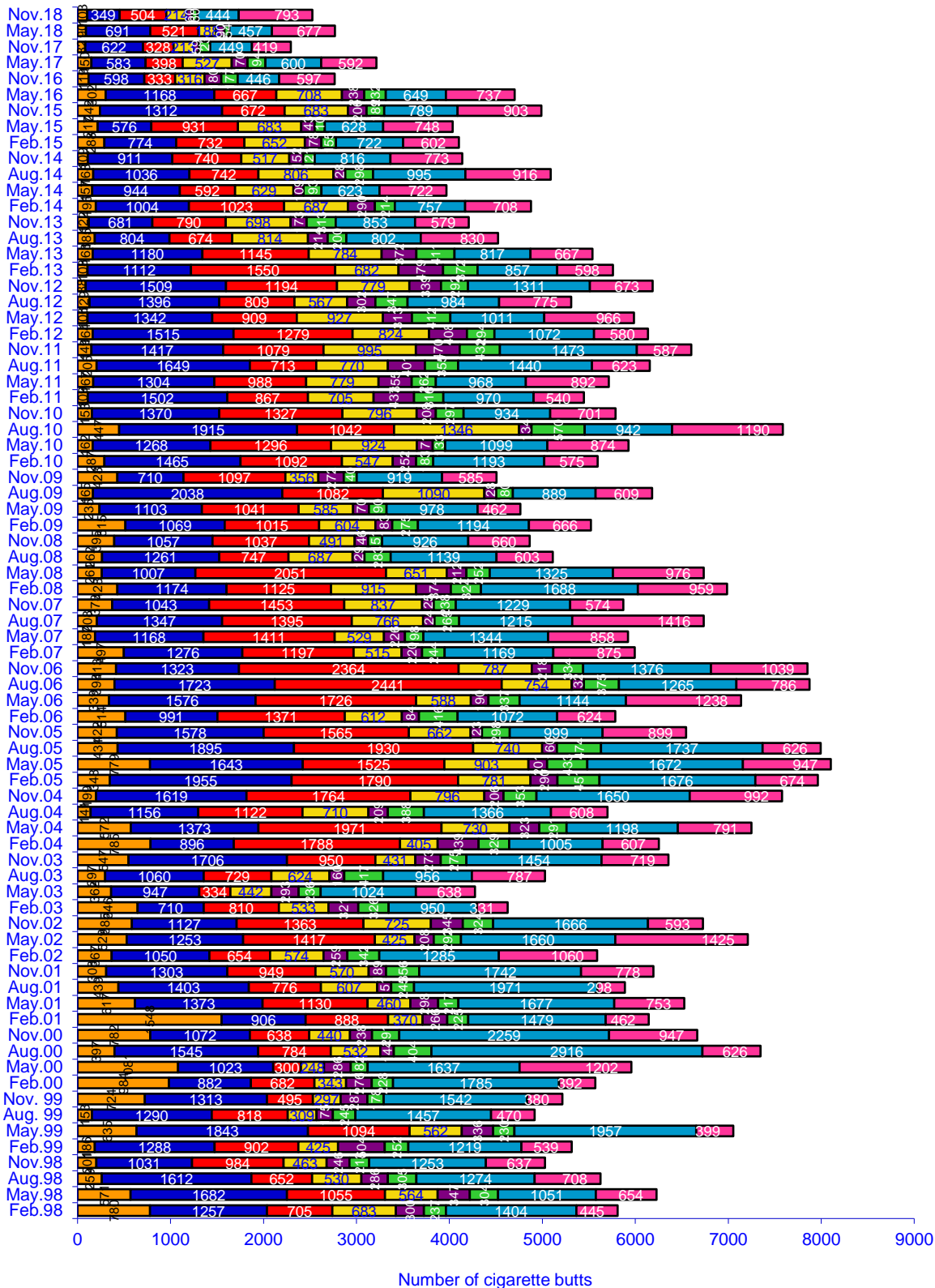
### Proportion of Total Litter by Site Type - Weighted



**Total Number of Cigarette Butts - Weighted**

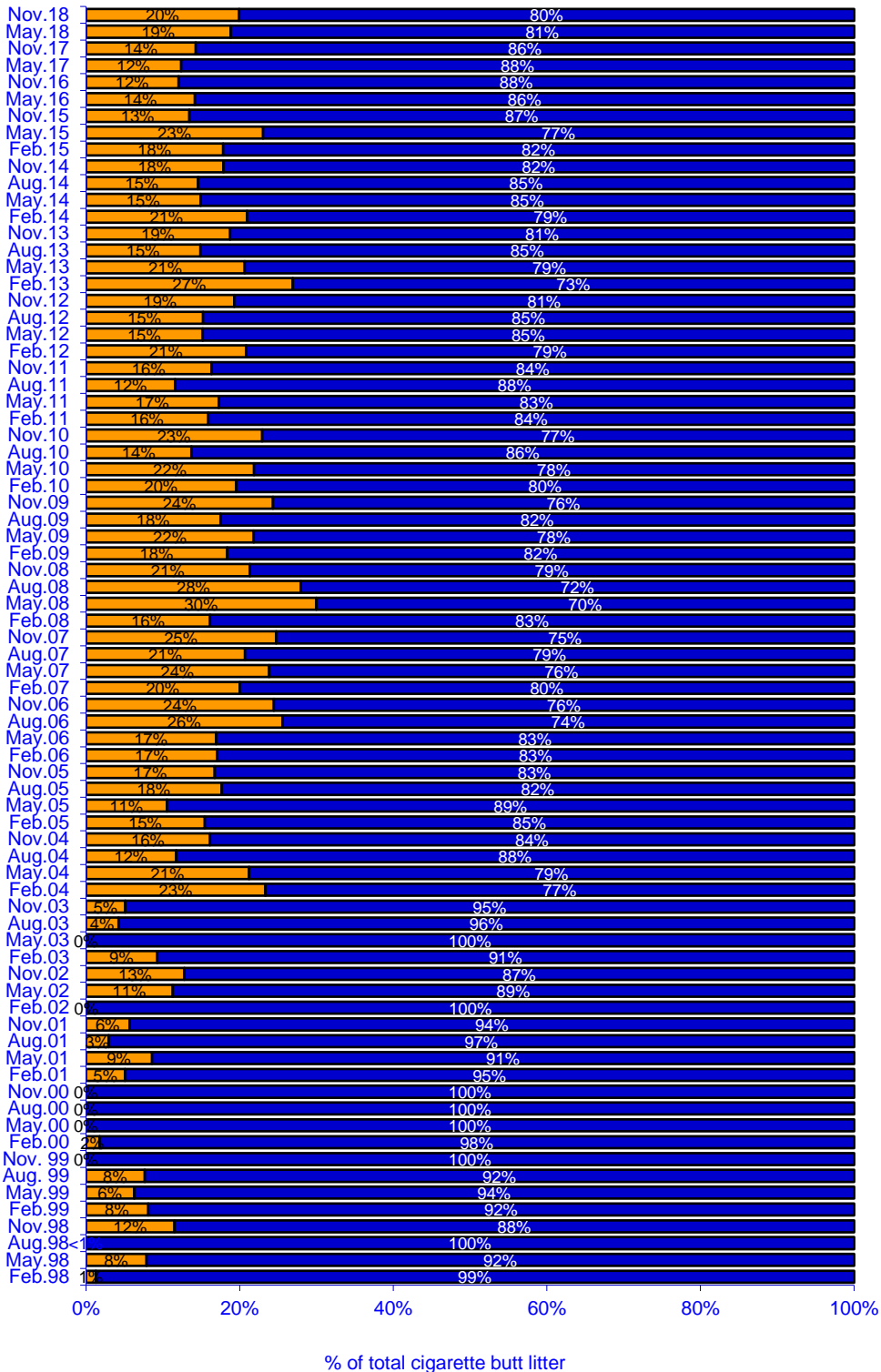


Number of Cigarette Butts by Site Type - Weighted

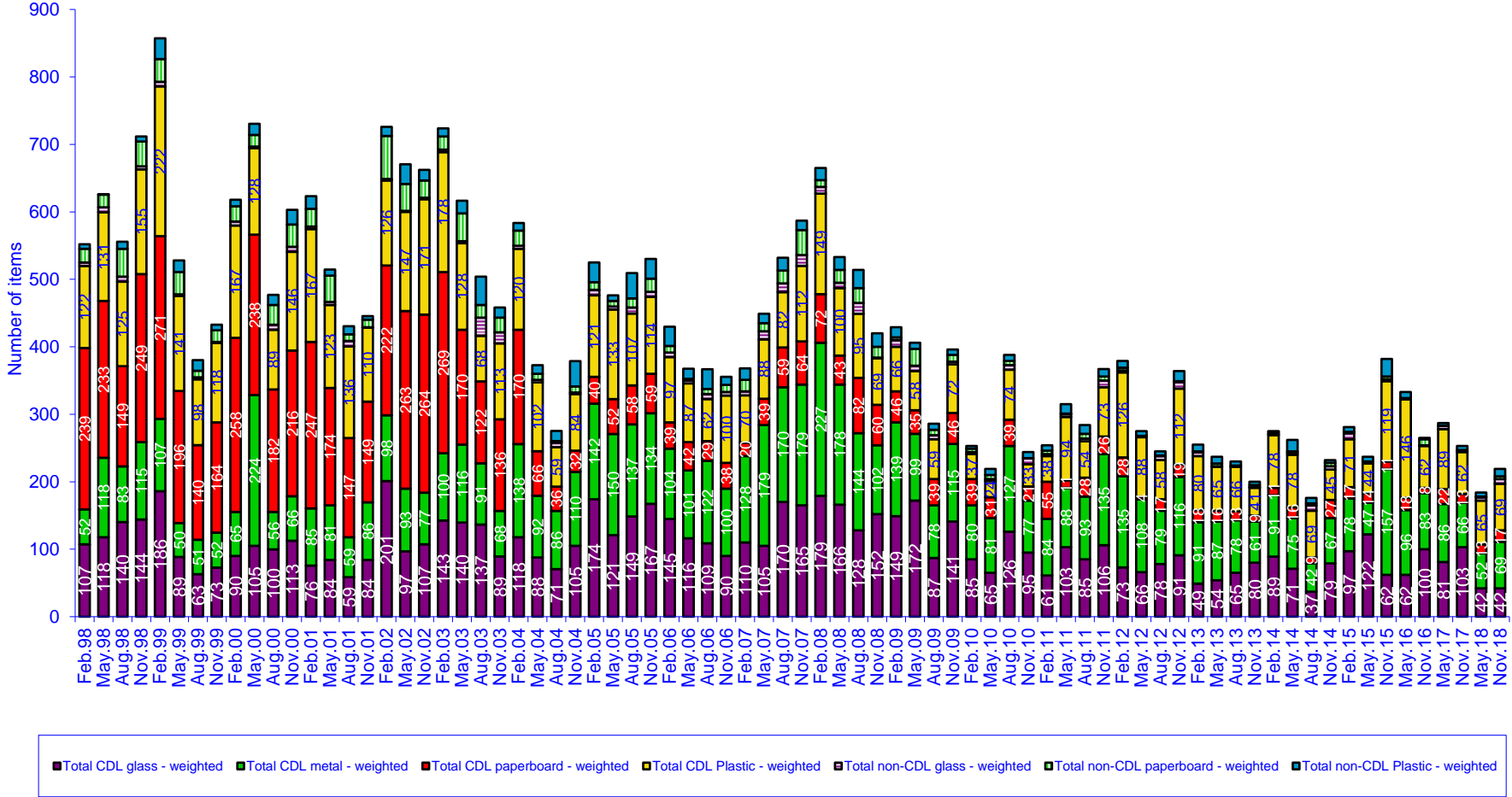


Beach - weighted	Car park - weighted	Highway - weighted	Industrial - weighted
Recreational Park - weighted	Residential - weighted	Retail - weighted	Shopping Centre - weighted

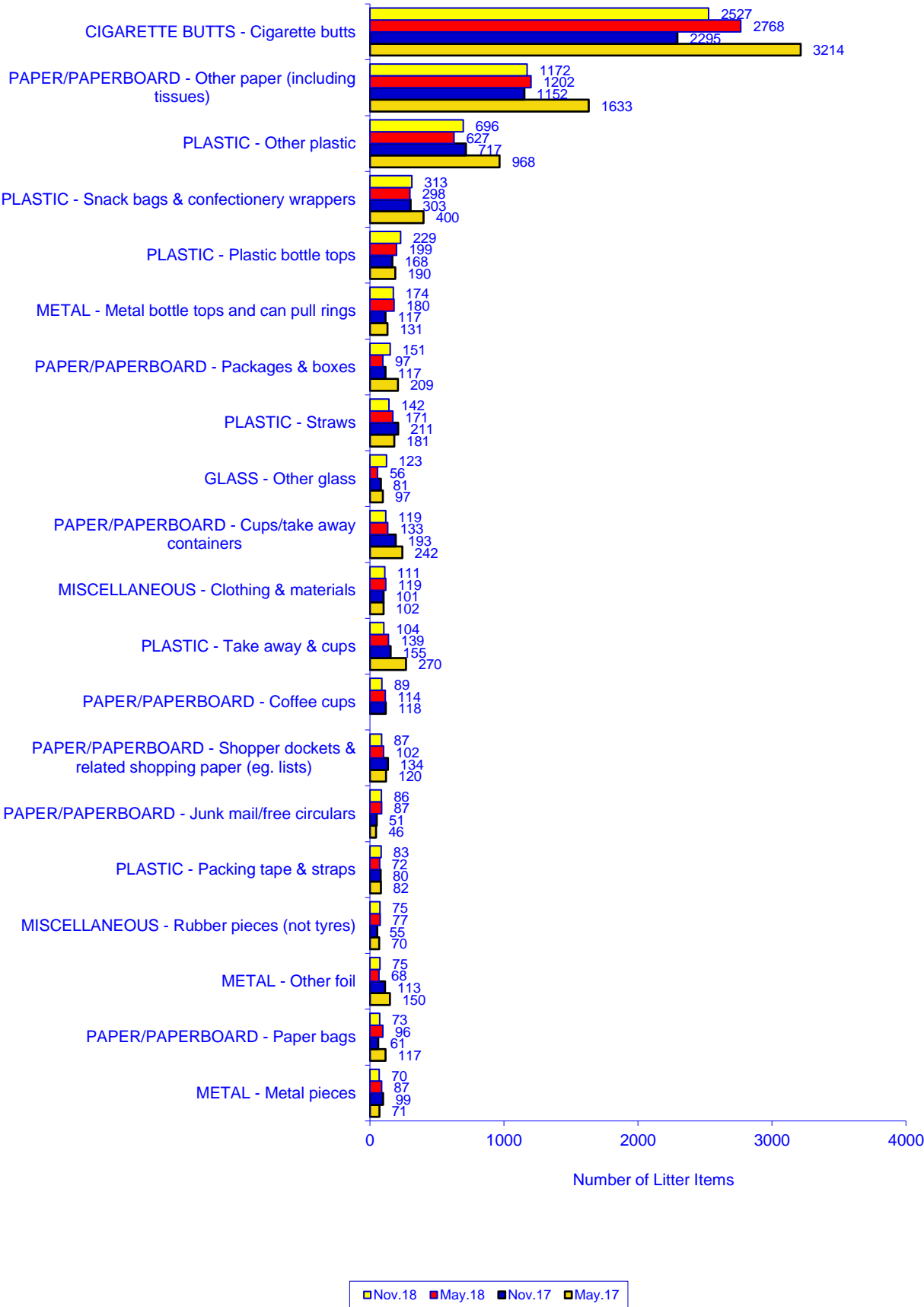
**Proportion of Total Cigarette Butt Litter at Highway sites & Other sites - Weighted**



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



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



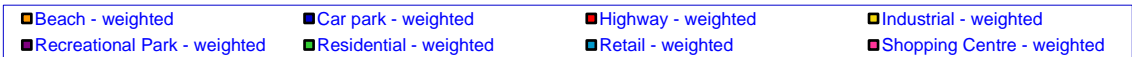
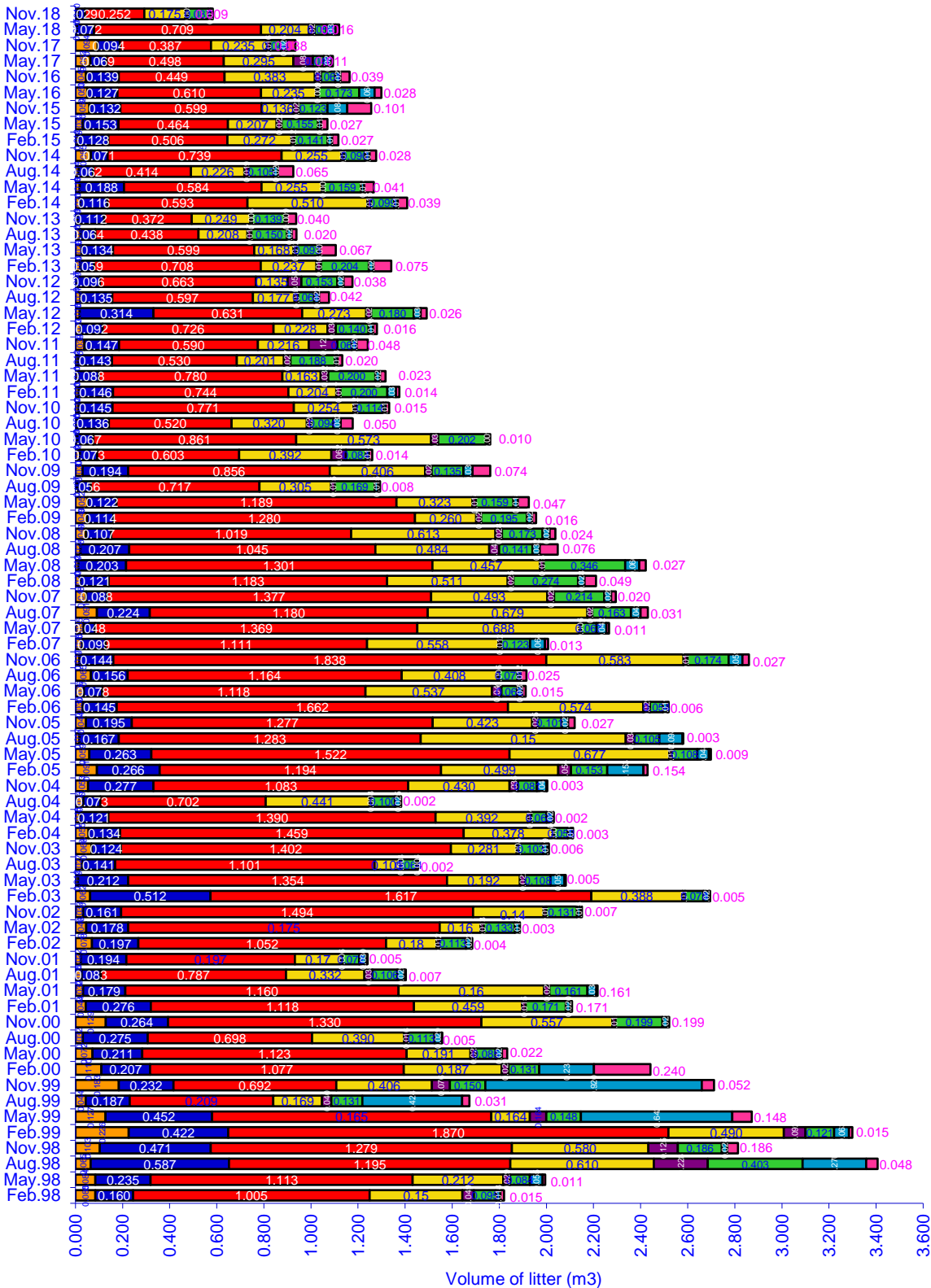
# Weighted Tracking Graphs - Volumes

### Top 20 Litter Items by Volume - Weighted

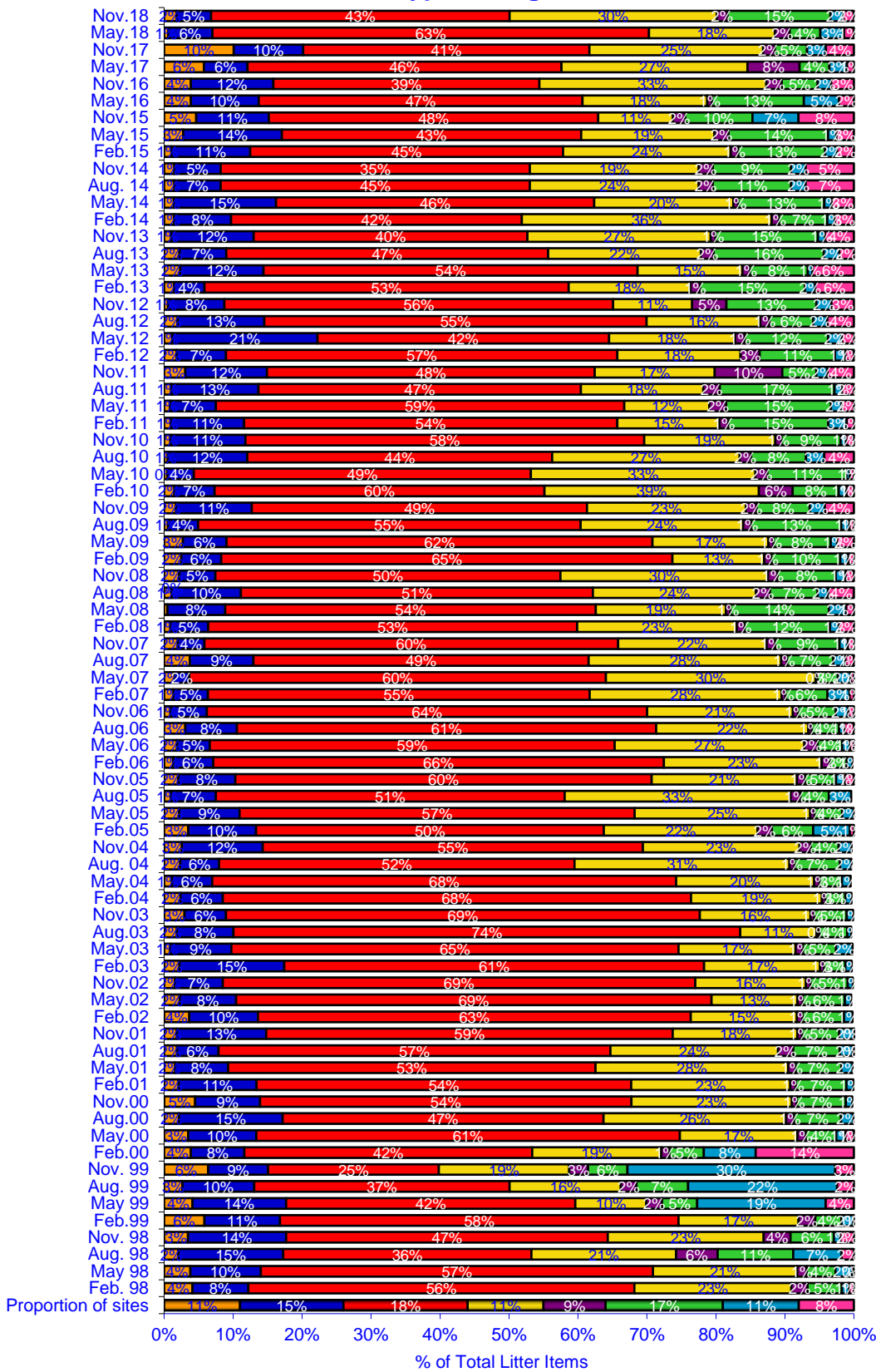




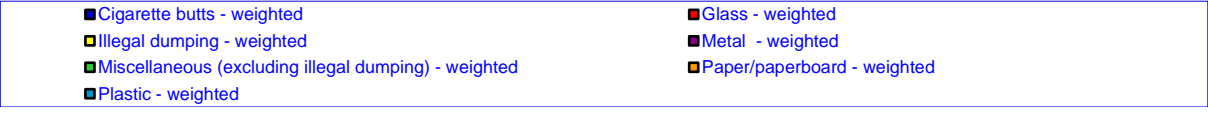
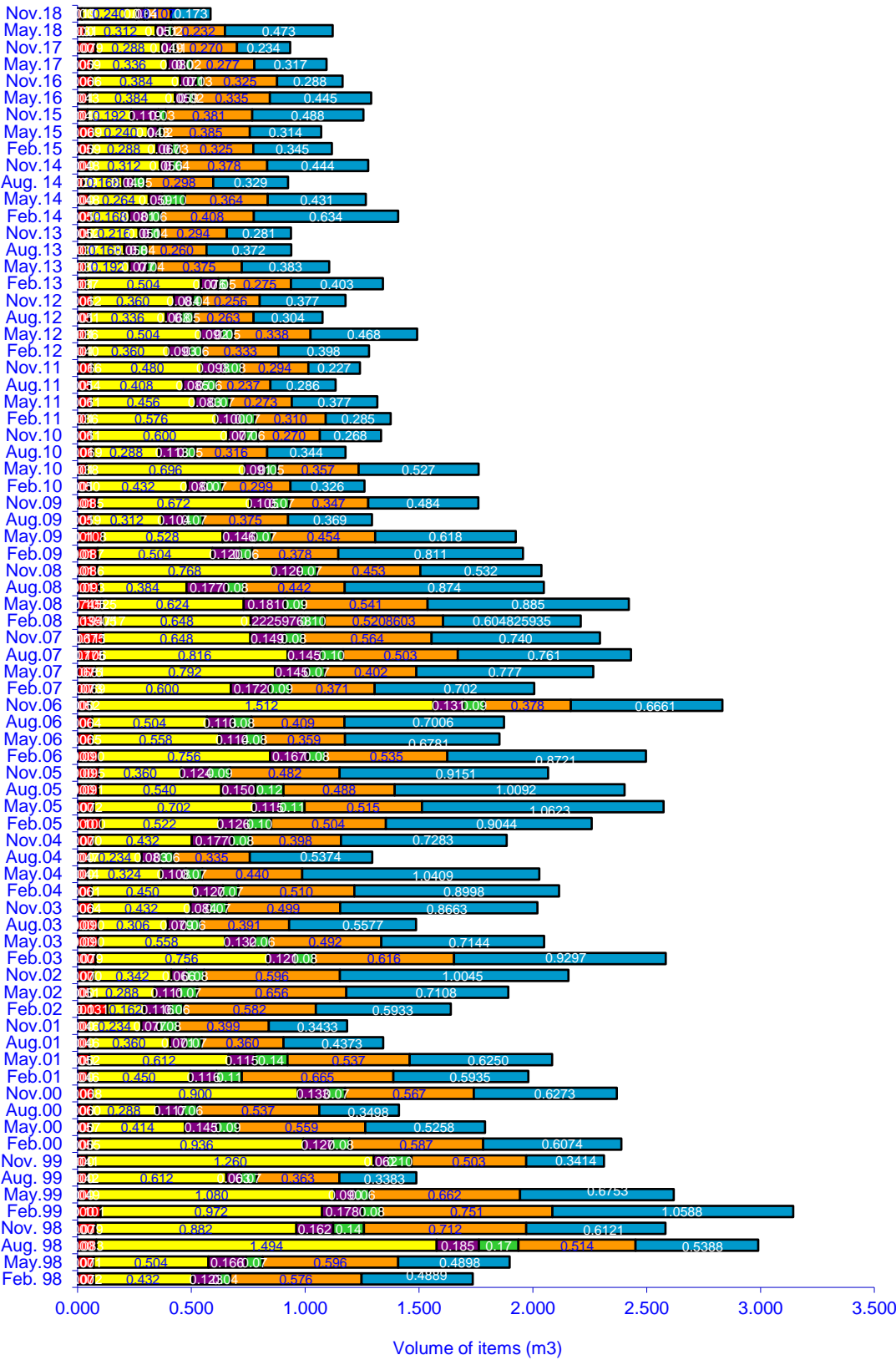
Volume of Litter by Site Type - Weighted



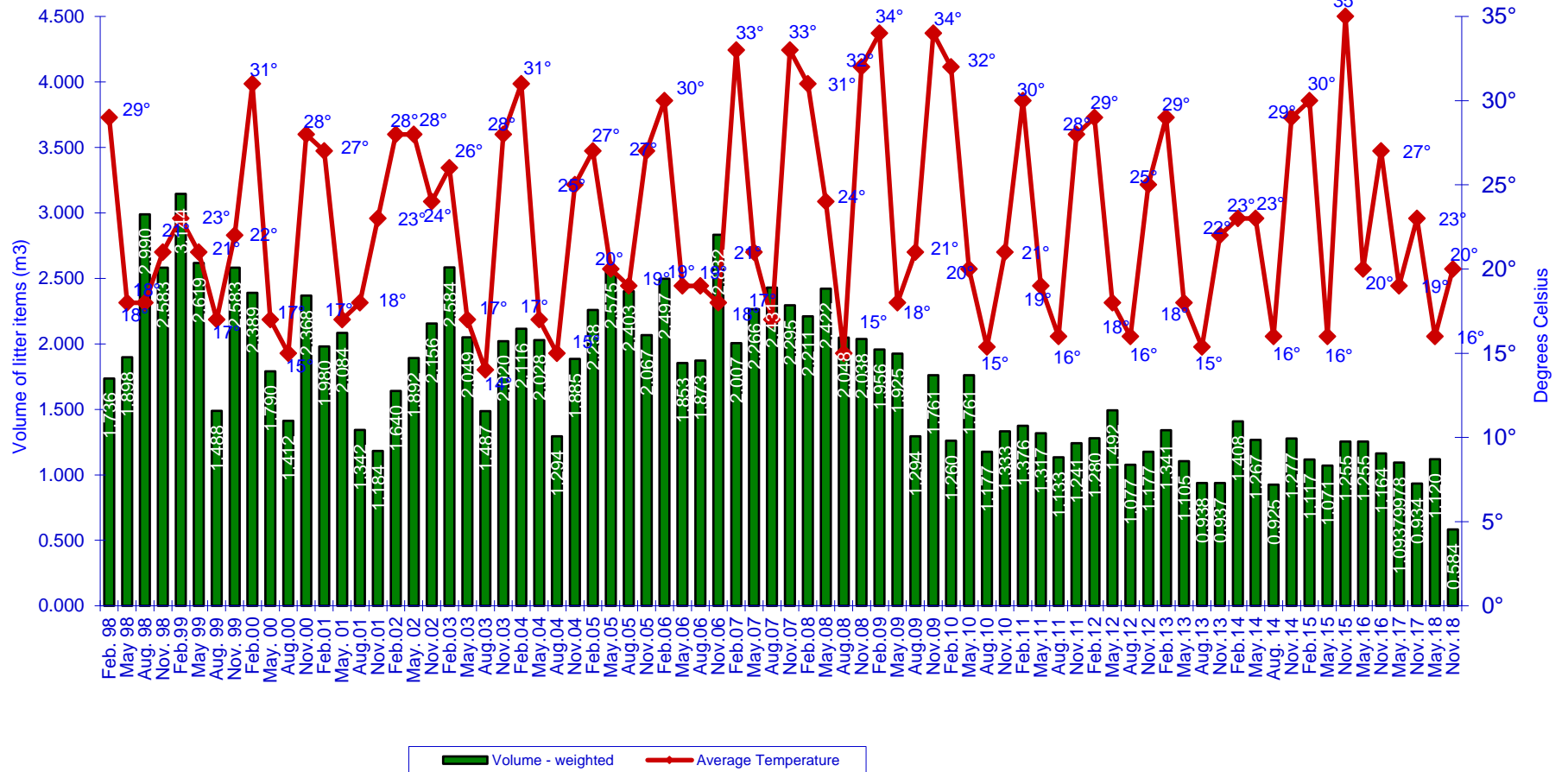
### Proportion of Litter Volume in Total Litter Stream by Site Type - Weighted



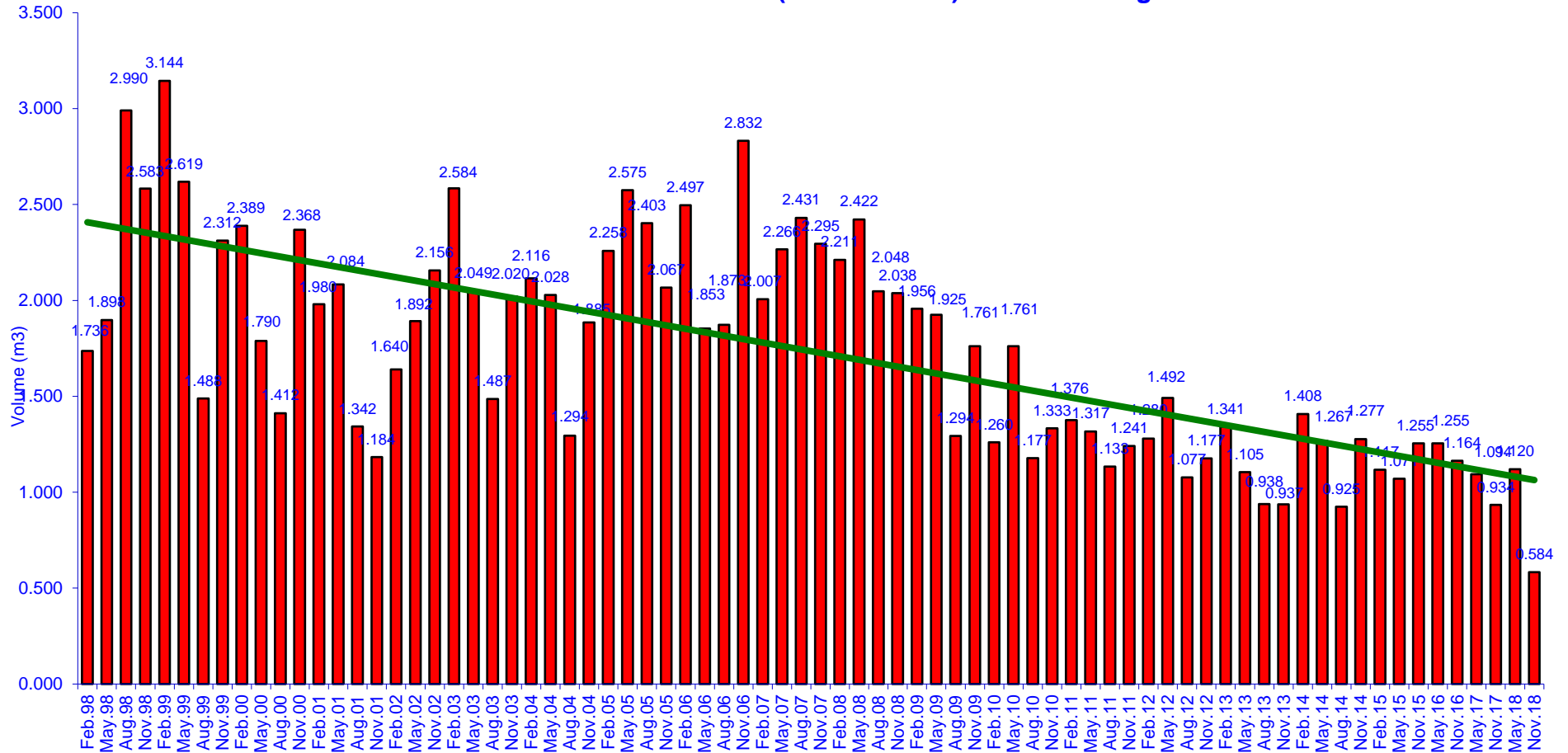
Volume of Litter Items by Material Type - Weighted



### 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																			
										GLASS					METAL													
Ga	Plain water (carbonated or non-carb.), 1 litre+	NONE																										
Gb	Plain water (carbonated or non-carb.), <1 litre	NONE																										
Gc	Flavoured water/soft drink (carbonated) 1 litre+	NONE																										
Gd	Flavoured water/soft drink (carbonated) <1 litre	NONE																										
Ge	Flav. water / fruit juice drink/ sports drink, (non carb), 1 litre+	NONE																										
Gf	Flav. water / fruit juice drink/ sports drink, (non carb), <1 litre	NONE																										
Gg	Fruit juice, 1 litre or more	NONE																										
Gh	Fruit juice, < 1 litre	NONE																										
Gi	Wine cooler, all sizes	NONE																										
Gj	Alcoholic sodas / spirit-based mixers, all sizes	NONE																										
Gk	Cider/fruit based etc.	NONE																										
Gl	Wine & spirit, all sizes	NONE																										
Gm	Beer, 750ml or more, all colours of glass	NONE																										
Gn	Beer, < 750ml, all colours of glass	NONE																										
Go	Other glass	NONE																										
MISCELLANEOUS					OTHER MISC -(Please specify item types and brands below)																							
																				Xa	Tyres & pieces	NONE						
																				Xb	Clothing & materials	NONE						
																				Xc	Illegal dumping	NONE						
										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																
										Xj																		
										CIGARETTE BUTTS																		



PAPER / PAPERBOARD					PLASTIC				
Item Type	Brand	Work Area	Total	Item Type	Brand	Work Area	Total		
<b>Ka</b> Packages & boxes	NONE			<b>Pf</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				