

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 www.mcgregor.com.au



**Litter Strategy Monitoring
Wave 75 – May 2018
Report**

Prepared for: John Phillips

On behalf of: KESAB Environmental Solutions

Project No: 10705

Date: July 2018

Contents

| | |
|--|-----------|
| Section 1 Introduction..... | 1 |
| Background..... | 2 |
| Section 2 Wave 75 Executive Summary..... | 5 |
| Items Counted | 6 |
| Litter Volume..... | 10 |
| 3.1 Glass | 13 |
| Items..... | 13 |
| Volume | 14 |
| 3.2 Metal..... | 15 |
| Items | 15 |
| Volume | 16 |
| 3.3 Plastic..... | 17 |
| Items..... | 17 |
| Volume | 18 |
| 3.4 Paper/ Paperboard..... | 19 |
| Items..... | 19 |
| Volume | 20 |
| 3.5 Miscellaneous | 21 |
| Items..... | 21 |
| Volume | 22 |
| 3.6 Cigarette Butts | 23 |
| Items | 23 |
| Volume | 24 |
| 3.7 Dispersion of Litter by Site Type | 25 |
| Items..... | 25 |
| Volume | 28 |
| 3.8 CDL Beverage Containers | 29 |
| Data Summary - Items | 30 |
| Data Summary - Volumes..... | 34 |
| Appendix 1: Tracking Graphs..... | 38 |
| Unweighted Tracking Graphs - Items..... | 44 |
| Unweighted Tracking Graphs - Volume | 59 |
| Weighted Tracking Graphs - Items..... | 67 |
| Weighted Tracking Graphs - Volumes | 78 |
| Appendix 2: Data Collection Form..... | 85 |

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 74 of the quarterly KESAB Litter Monitor. Surveys for the current wave were conducted in South Australia during May 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 docket & 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 75 of the longitudinal study. The litter count was conducted during May 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 75

Executive Summary

The following Executive Summary covers the findings of the May 2018 KESAB Litter Monitor (Wave 75). 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 2018 count.

Items Counted

A total of 7,504 litter items were counted across the 151 South Australian sites during Wave 75. This figure is more than the previous monitors in November 2017 (7,246) but below previous monitors conducted in May 2017 (9,354), November 2016 (8,310) and May 2016 (11,044).

Cigarette butts remained the main contributor (37%) to the litter count with 2,768 butts counted in Wave 75, up from (2,295) in November 2017 but down from Wave 73 (3,214) in and May 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 75, including:

- CIGARETTE BUTTS - Cigarette butts - 2,768 items, up from 2,295 items in Wave 74 (21% increase)
- METAL - Metal bottle tops and can pull rings – 180 items, up from 117 items in Wave 74 (54% increase)
- PAPER/PAPERBOARD - Other paper (including tissues) – 1,202 items, up from 1,152 items in Wave 74 (4% increased)
- PAPER/PAPERBOARD - Junk mail/free circulars – 87 items, up from 51 items in Wave 74 (71% increase)
- PAPER/PAPERBOARD - Paper bags – 96 items, up from 61 items in Wave 74 (57% increase)
- PLASTIC - Plastic bottle tops – 199 items, up from 168 items in Wave 74 (18% increase)
- MISCELLANEOUS - Rubber pieces (not tyres) – 77 items, up from 55 items (40% increase)

Litter types that experienced and decrease in the number of items in Wave 75 included:

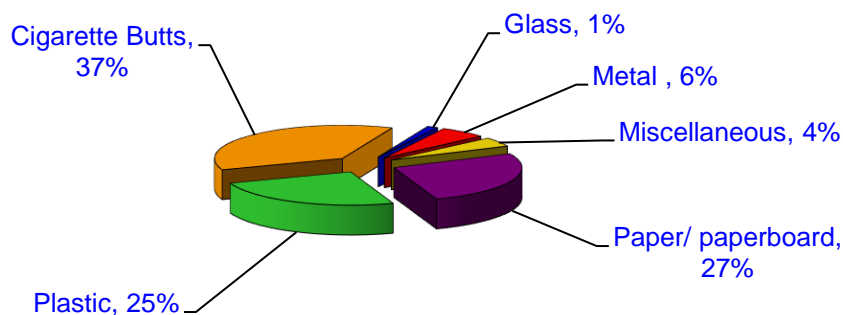
- PLASTIC - Other plastic – 627 items, down from 717 items in wave 74 (13% decrease)
- PAPER/PAPERBOARD - Cups/take away containers – 133 items, down from 193 items in Wave 74 (31% decrease)
- GLASS - Beer, all colours of glass, 750ml+ - 13 items, down from 64 items in Wave 74 (80% decrease)

- METAL - Other foil – 68 items, down from 113 items in Wave 74 (40% decrease)
- MISCELLANEOUS - Ice cream sticks – 10 items, down from 53 items in Wave 74 (81% decrease)
- PLASTIC – Straws – 171 items, down from 211 items in Wave 74 (19% decrease)
- PAPER/PAPERBOARD - Cigarette packets – 65 items, down from 97 items in Wave 74 (33% decrease)
- PAPER/PAPERBOARD - Shopper docket & related shopping paper (e.g. lists) – 102 items, down from 134 items (24% decrease)
- GLASS - Other glass – 56 items, down from 81 items in Wave 74 (31% decrease)
- PLASTIC - Lollipop sticks – 36 items, down from 59 items in Wave 74 (39% decrease)
- PLASTIC - Spoons/cutlery – 42 items, down from 65 items in Wave 74 (35% decrease)

Cigarette butts accounted for the largest proportion of all litter items counted (37%), up from 32% in Wave 74 and 34% in Wave 73 counted at the same time in the previous year. Other material types represented the following proportions of the litter items counted:

- Plastic items (25%, down from 27% in Wave 74)
- Paper/ paperboard (27%, down from 28% in Wave 74)
- Metal items (6%, unchanged from 6% in Wave 74)
- Miscellaneous items (4%, down from 5% in Wave 74)
- Glass items (1%, down from 3% in Wave 74)

Items as Proportions of Total by Material Type



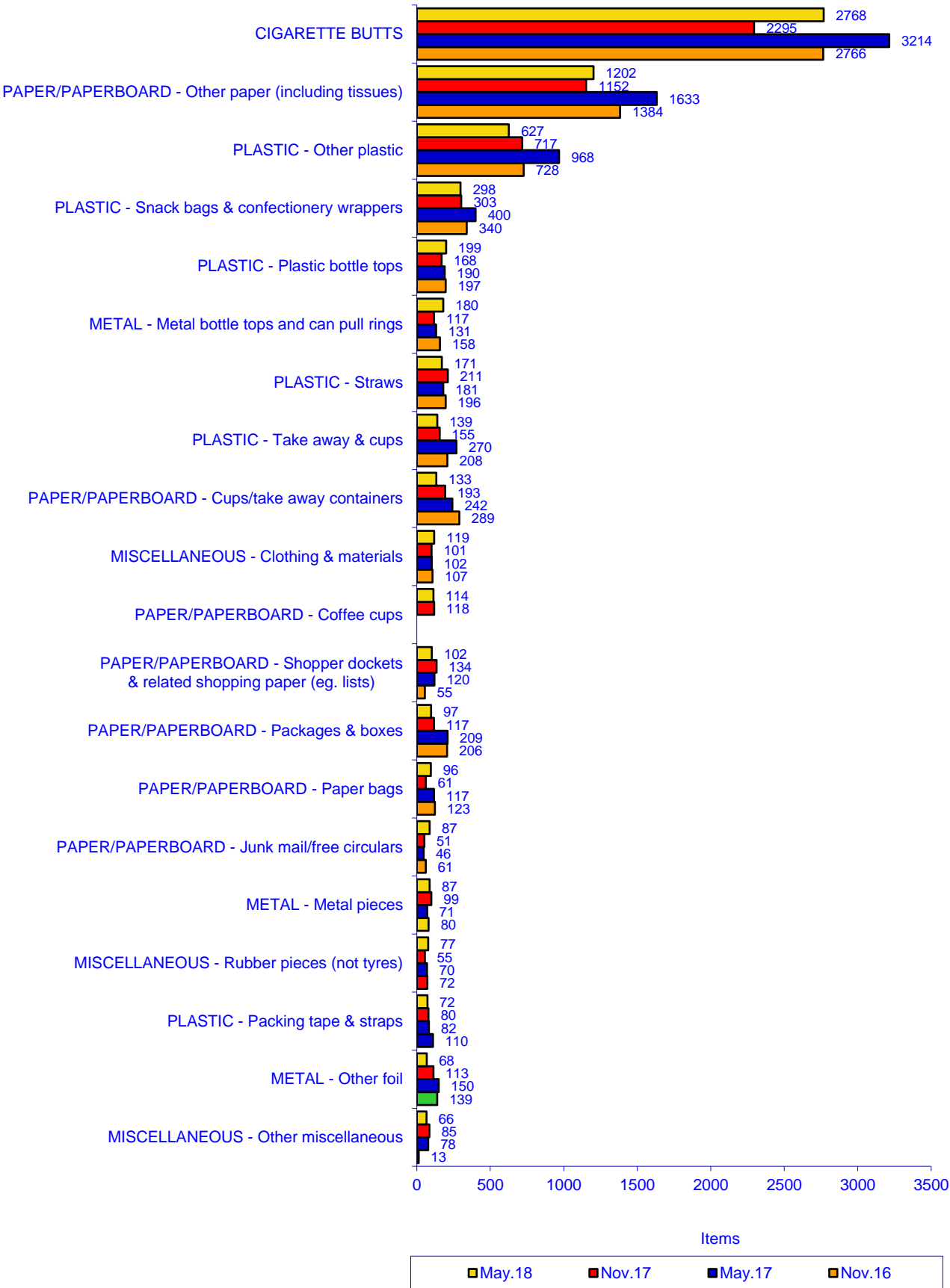
The top 20 ranking of litter type by number of items in Wave 75 was similar to the results for Wave 74, with new items entering the Top 20:

- PAPER/PAPERBOARD – Paper bags
- PAPER/PAPERBOARD – Junk mail / free circulars
- MISCELLANEOUS - Rubber pieces (not tyres)

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

- PAPER/PAPERBOARD – Cigarette packs
- GLASS – Other glass
- PLASTIC – Spoons/cutlery

TOP 20 CATEGORIES - HIGHEST COUNTS



Litter Volume

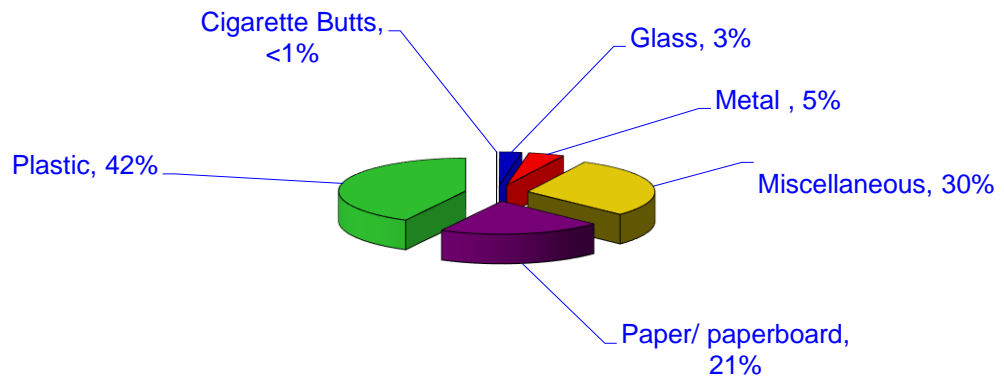
The total volume of litter recorded in May 2018 amounted to 1.120 cubic metres, higher than the estimated litter volume of November 2017 (0.934m³) and higher than May 2017 (1.094m³) conducted at the same time in the previous year.

The largest proportion of litter volume for Wave 75 was contributed by plastic items, with 42% of the total estimated volume (up from 25% in Wave 74).

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

- Miscellaneous items (30%, down from 32% in Wave 74).
- Paper/ paperboard items (21%, down from 29% in Wave 74)
- Metal (5%, unchanged from 5% in Wave 74)
- Glass (3%, down from 8% in Wave 74)
- Cigarette butts (<1%, unchanged from Wave 74)

Litter Volume as a Proportion of Total Volume



MISCELLANEOUS - Illegal dumping accounted for the highest volume of litter in Wave 75, with an estimated volume of 0.312m³ (up from 0.288m³ in Wave 74). Other items associated with large estimated litter volumes in Wave 75 included:

- PLASTIC - Containers, domestic type - 0.200m³ (up from 0.067m³ in Wave 74)
- PLASTIC – Containers, industrial, e.g. oil - 0.180m³ (up from 0.067m³ in Wave 74)
- PAPER/PAPERBOARD - Cups/take away containers - 0.097m³ (down from 0.141m³ in Wave 74)
- PAPER/PAPERBOARD – Coffee cups - 0.056m³ (down from 0.058m³ in Wave 74)
- PLASTIC – Take away & cups - 0.029m³ (down from 0.032m³ in Wave 74)
- PAPER/PAPERBOARD – Newspapers & magazines - 0.028m³ (up from 0.017m³ in Wave 74)
- PAPER/PAPERBOARD – Junk mail / free circulars - 0.015m³ (up from 0.009m³ in Wave 74)
- METAL – Foil take away - 0.015m³ (up from 0.010m³ in Wave 74)
- PAPER/PAPERBOARD – Cigarette packets - 0.014m³ (down from 0.021m³ in Wave 74)
- GLASS - Beer, all colours of glass, 750ml+ - 0.012m³ (down from 0.058m³ in Wave 74)

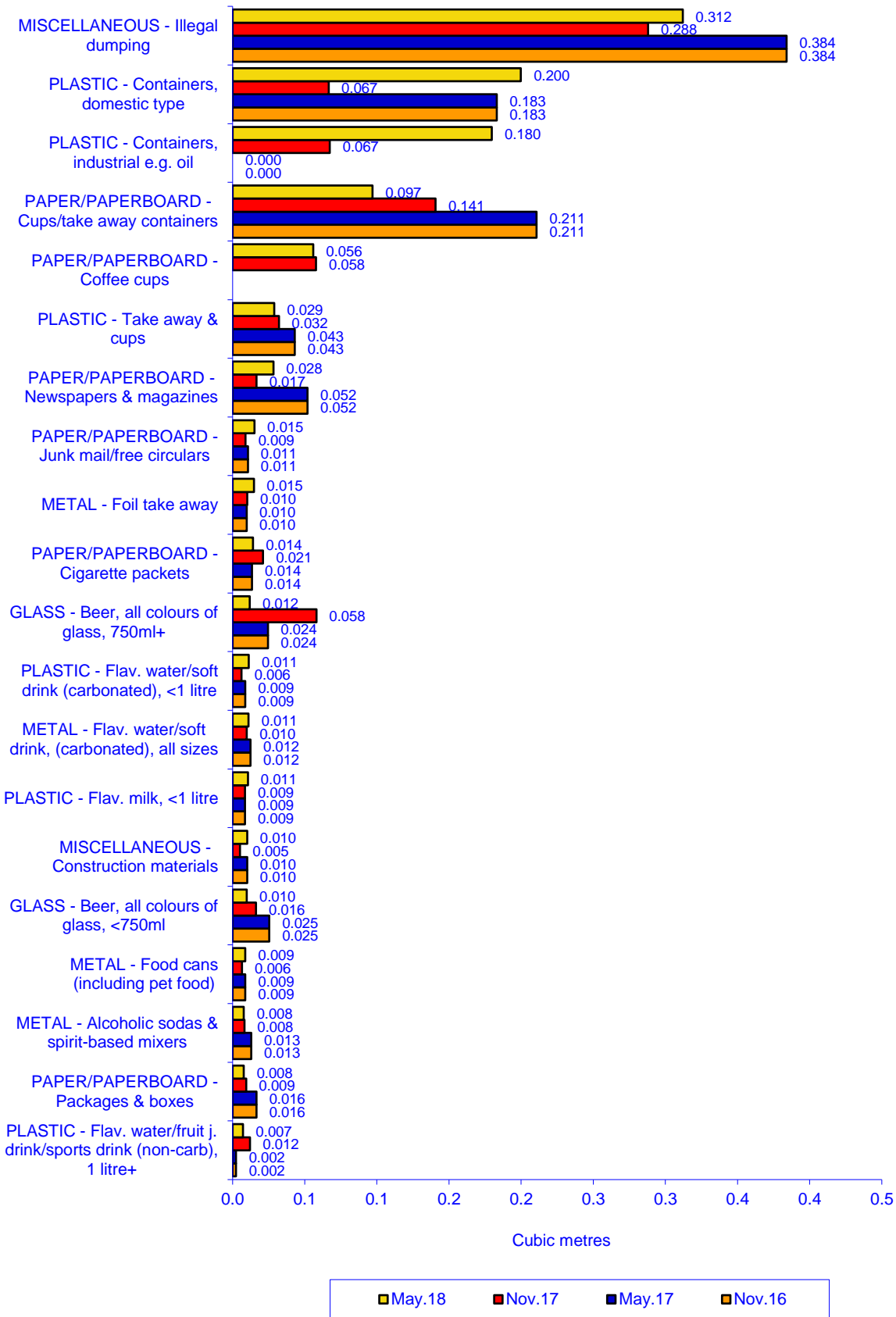
The top 20 ranking of litter items by volume in Wave 75 was similar to the results for Wave 74, with 3 new items entering the Top 20. These items were:

- PLASTIC – Flav. water/soft drink (carbonated), <1 litre
- MISCELLANEOUS – Construction materials
- METAL – Food cans (including pet food)

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

- METAL – Beer, aluminium, all types, all sizes
- PLASTIC – Plain water (carbonated or non-carbonated), <1 litre
- PLASTIC – Flav. milk, 1 litre+

TOP 20 CATEGORIES - LARGEST VOLUMES

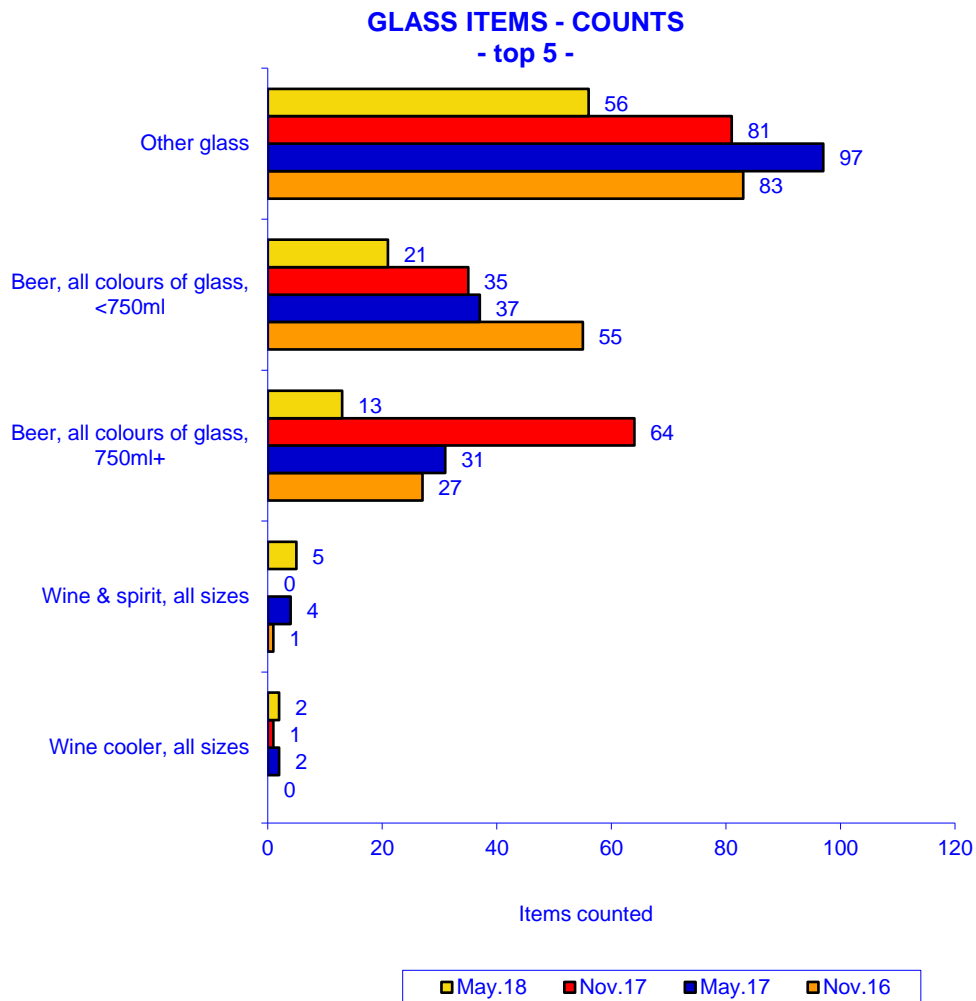


3.1 Glass

Items

A total of 103 glass litter items (down from 185 items in Wave 74) were counted during Wave 74. The most frequently recorded glass items included:

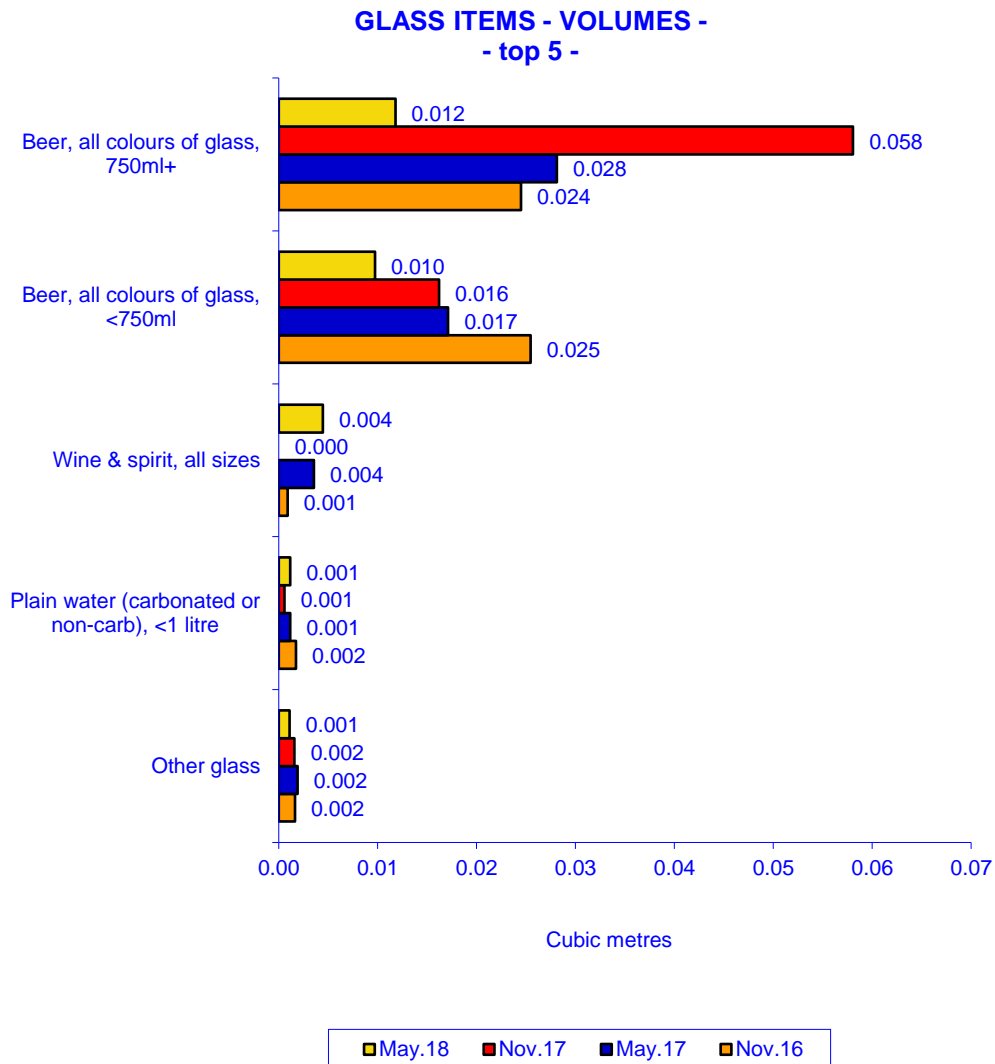
- Other glass (56 items, down from 81 items in Wave 74)
- Beer, all colours of glass <750ml (21 items, down from 35 items in Wave 74)
- Beer, all colours of glass 750ml+ (13 items, down from 64 items in Wave 74)
- Wine & spirits, all sizes (5 items, up from 0 items in Wave 74)
- Wine cooler, all sizes (2 items, up from 1 item in Wave 74)



Volume

Glass litter items accounted for 0.031m³, (down from 0.079m³ in Wave 74) in estimated litter volume during Wave 75. Glass items which contributed the largest volumes to the total included:

- Beer, all colours of glass 750ml+ (0.012m³, down from 0.058m³ in Wave 74)
- Beer, all colours of glass <750ml (0.010m³, down from 0.016m³ in Wave 74)
- Wine & spirit, all sizes (0.004m³, up from 0.000m³ in Wave 74)
- Plain water (carbonated or non-carb), <1 litre (0.001m³, unchanged from 0.001m³ in Wave 74)
- Other glass (0.001m³, down from 0.002m³ in Wave 74)

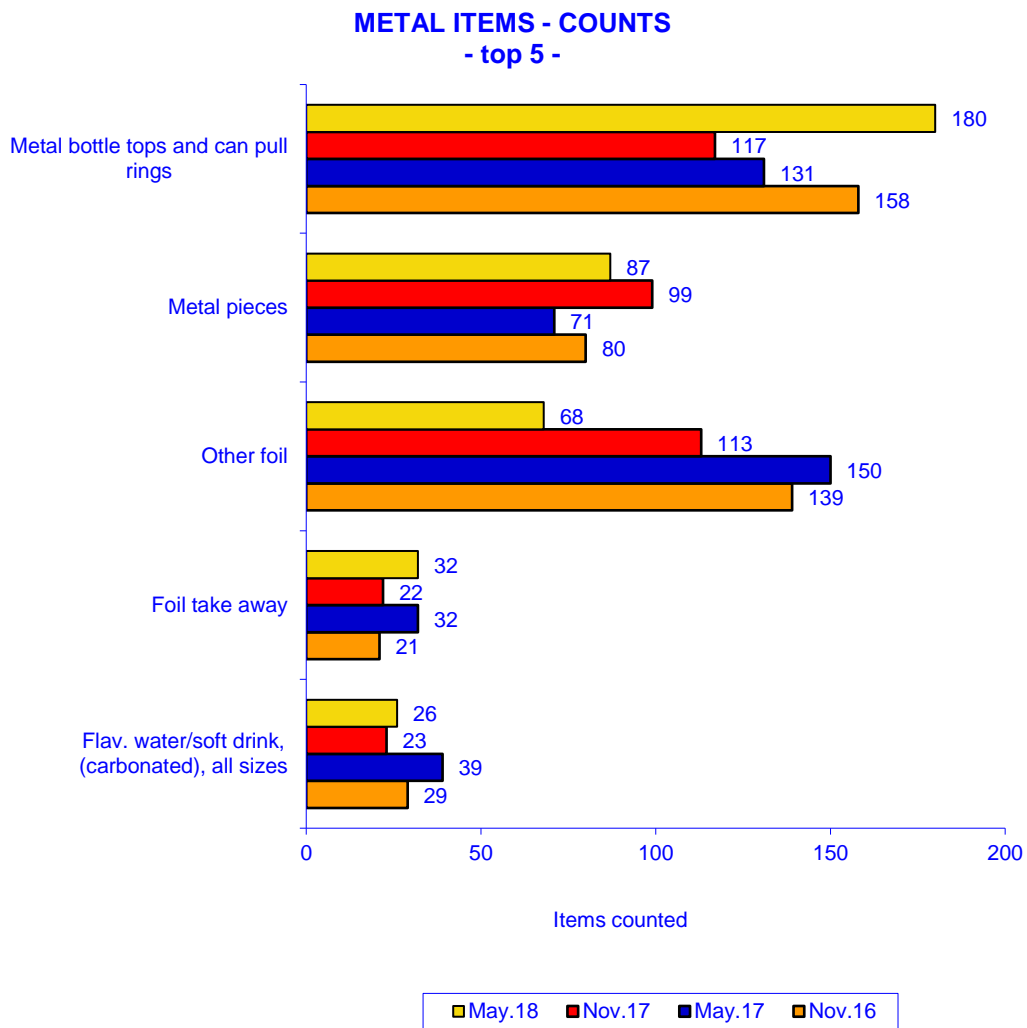


3.2 Metal

Items

A total of 443 metal litter items (up from 435 items in Wave 74) were counted during Wave 74. The most frequently counted metal litter items included:

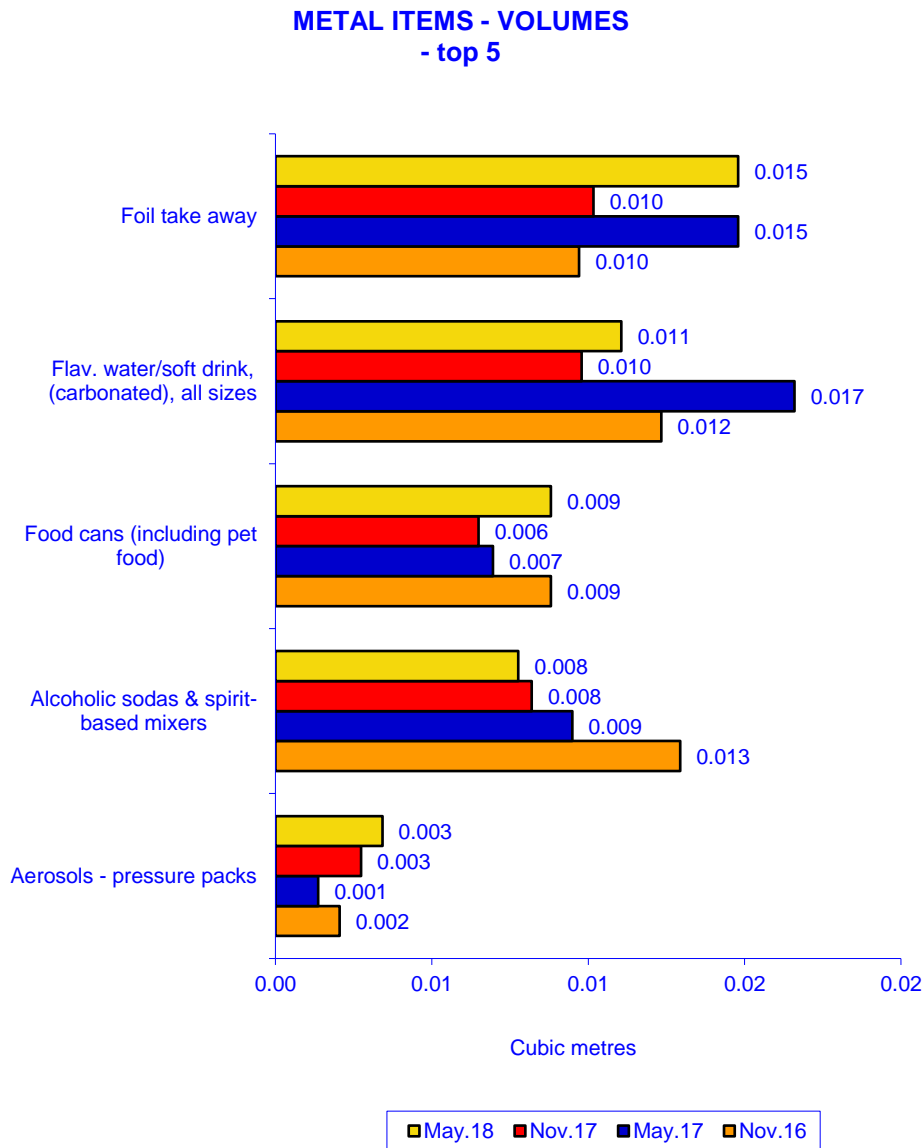
- Metal bottle tops and can pull rings (180 items, up from 117 items in Wave 74)
- Metal pieces (87 items, down from 99 items in Wave 74)
- Other foil (68 items, down from 113 items in Wave 74)
- Foil take away (32 items, up from 22 items in Wave 74)
- Flavoured water/soft drink (carbonated), all sizes (26 items, up from 23 items in Wave 74)



Volume

Metal litter items accounted for a total estimated litter volume of 0.051m³ (up from 0.049m³ in Wave 74). The metal items associated with the largest estimated volumes of litter during Wave 75 included:

- Foil take away (0.015m³, up from 0.010m³ in Wave 74)
- Flavoured water/soft drink (carbonated), all sizes (0.011m³, up from 0.010m³ in Wave 74)
- Food cans (including pet food) (0.009m³, up from 0.006m³ in Wave 72)
- Alcoholic sodas & spirit-based mixers (0.008m³, unchanged from 0.008m³ in Wave 72)
- Aerosols - pressure packs (0.003m³, unchanged from 0.003m³ in Wave 74)

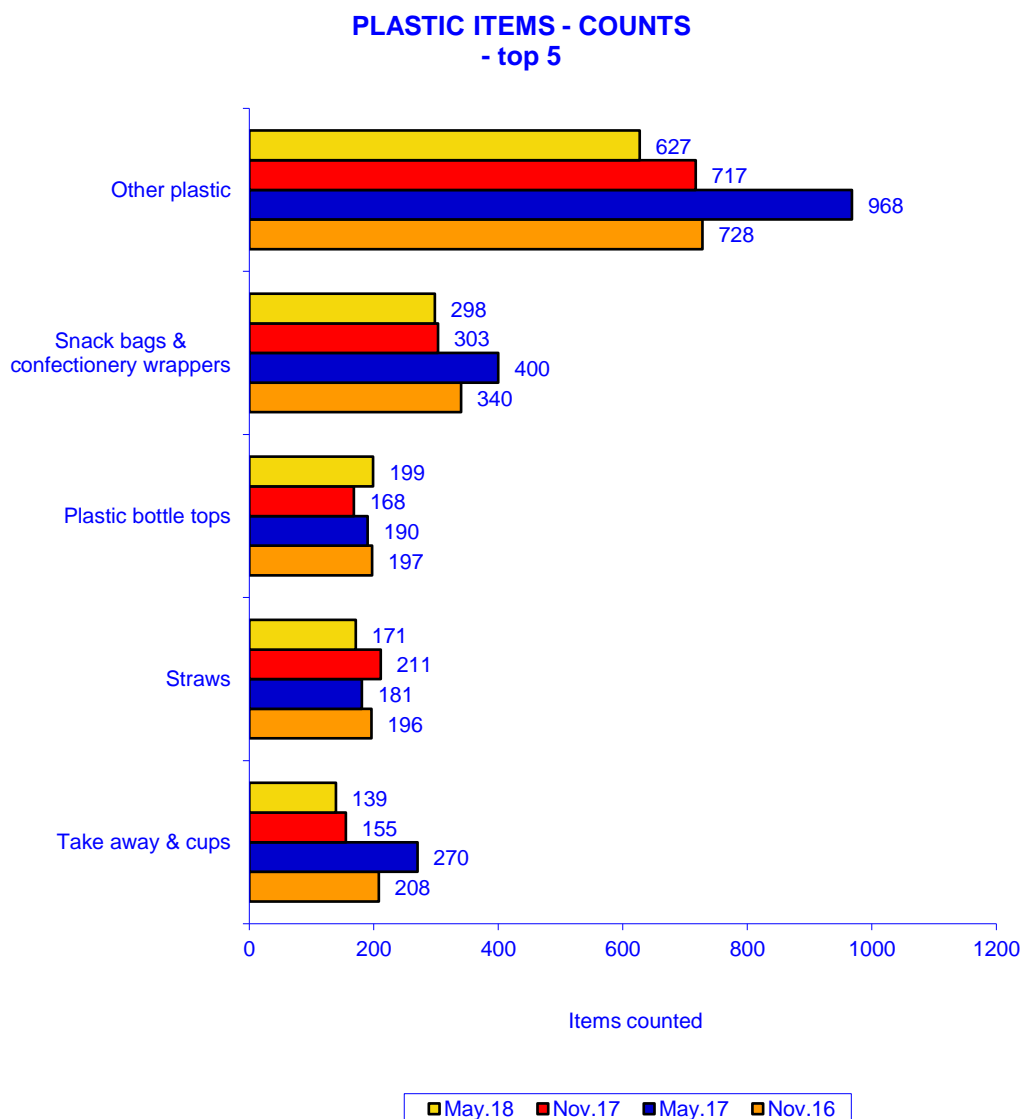


3.3 Plastic

Items

A total of 1,862 plastic litter items (down from 1,983 items in Wave 74) were counted during Wave 74. The most frequently counted plastic litter items included:

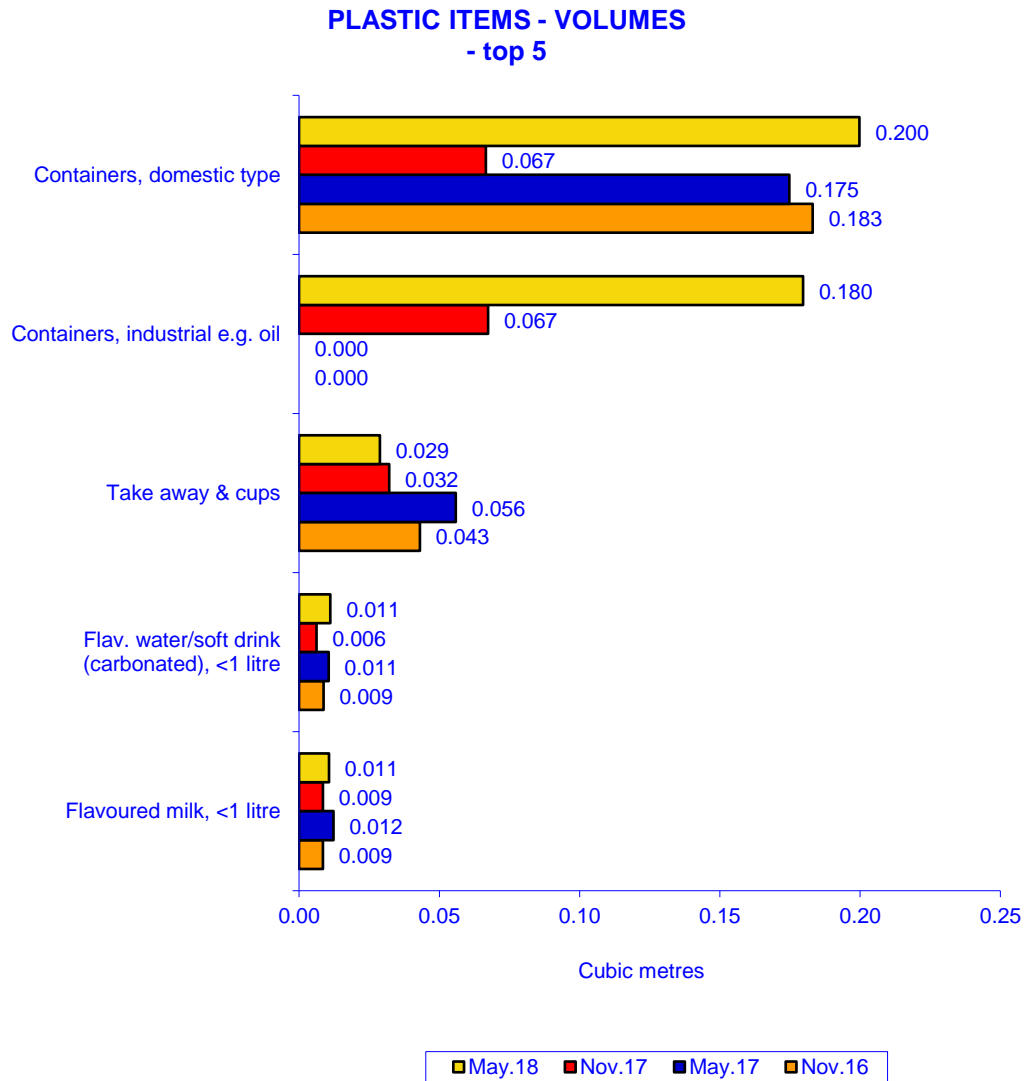
- Other plastic (627 items, down from 717 items in Wave 74)
- Snack bags & confectionery wrappers (298 items, down from 303 items in Wave 74)
- Plastic bottle tops (199 items, up from 168 items in Wave 74)
- Straws (171 items, down from 211 items in Wave 74)
- Take away & cups (139 items, down from 155 items in Wave 74)



Volume

Plastic items were associated with an estimated litter volume of 0.472m³ (up from 0.234m³ in Wave 74). Items which represented the largest volumes within the Wave 75 litter count included:

- Containers, domestic type (0.200m³, up from 0.067m³ in Wave 74)
- Containers, industrial e.g. oil (0.180m³, up from 0.067m³ in Wave 74)
- Take away & cups (0.029m³, down from 0.032m³ in Wave 74)
- Flav. water/soft drink (carbonated), <1 litre (0.011m³, up from 0.006m³ in Wave 74)
- Flavoured milk, <1 litre (0.011m³, up from 0.009m³ in Wave 74)



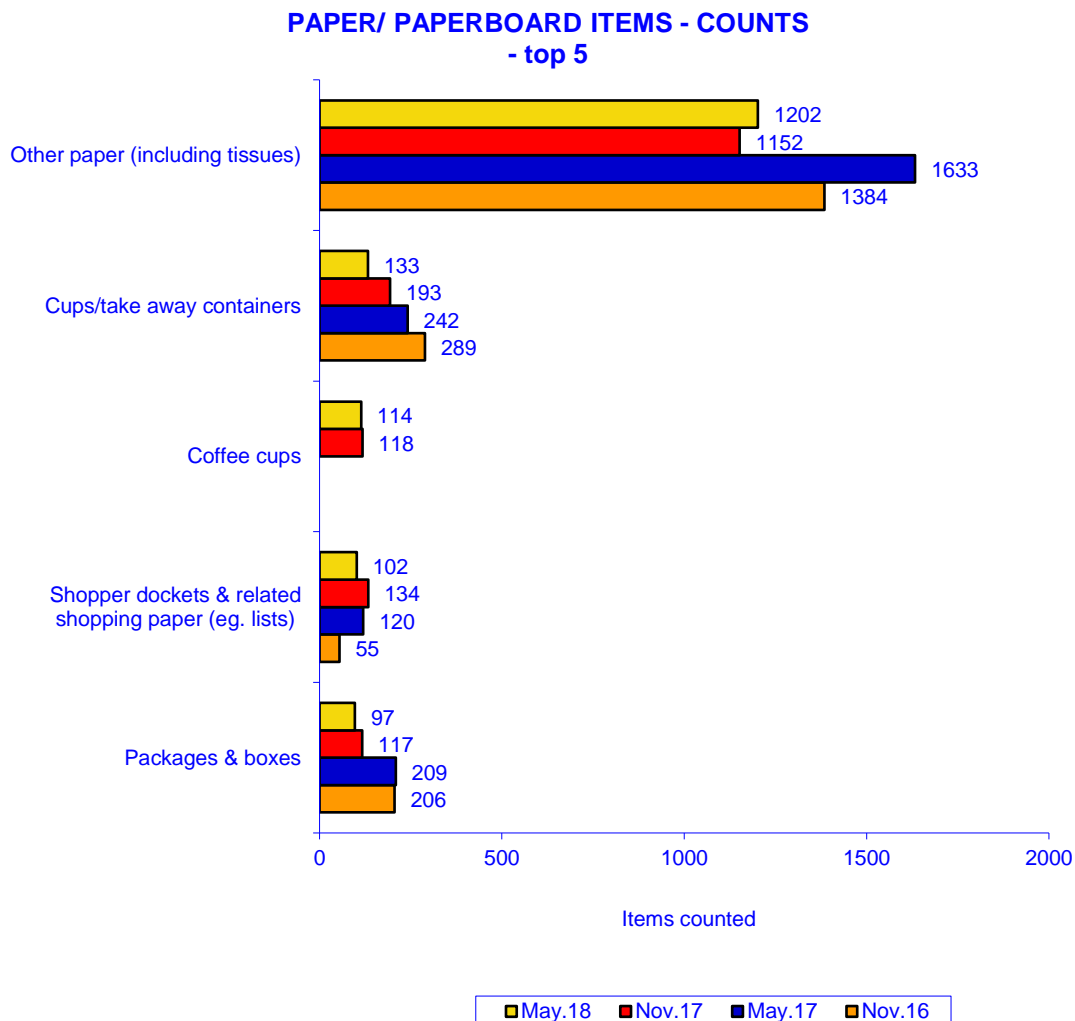
3.4 Paper/ Paperboard

Items

A total of 1,991 paper/paperboard litter items (down from 2,006 items in Wave 74) were recorded during Wave 74.

The most frequently identified items within this material type were:

- Other paper – including tissues (1,202 items, up from 1,152 items in Wave 74)
- Cups/ take away containers (133 items, down from 193 items in Wave 74)
- Coffee cups (114 items, down from 118 items in Wave 74)
- Shopper dockets & related shopping paper (e.g. lists) (102 items, down from 134 items in Wave 74)
- Packages & boxes (97 items, down from 117 items in Wave 74)



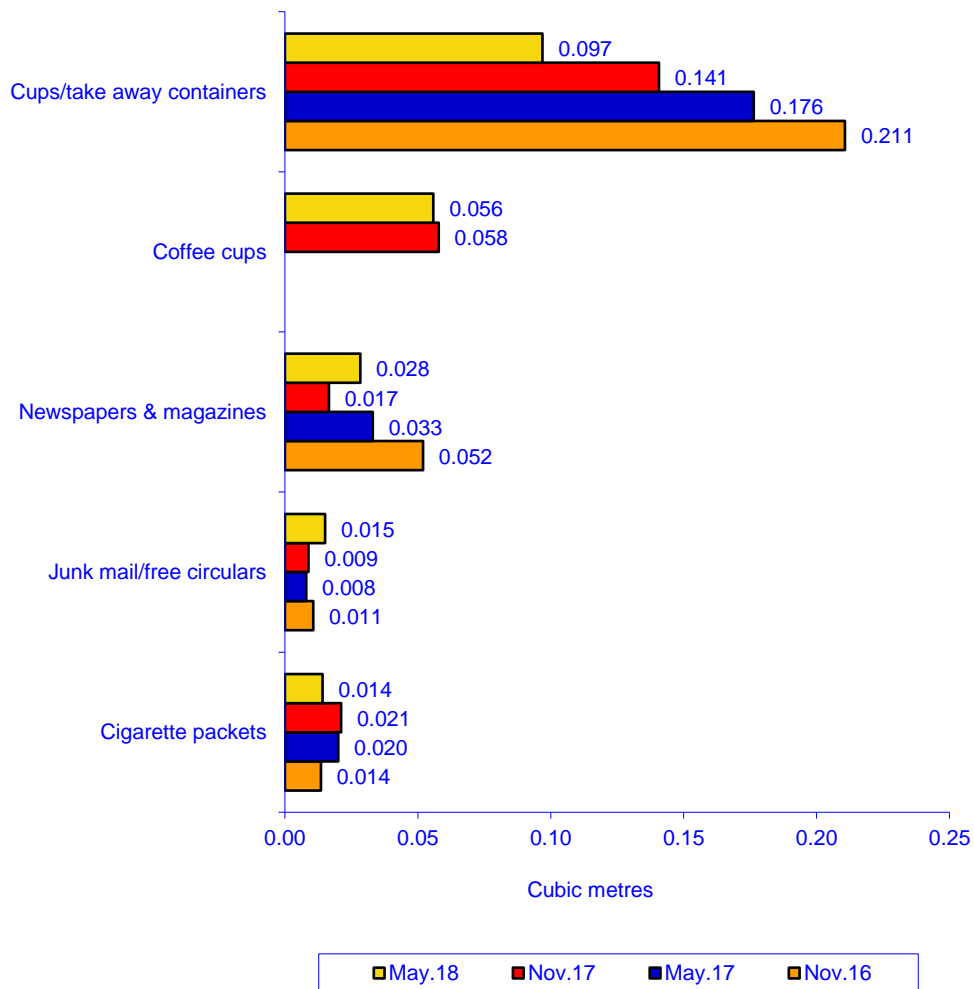
Volume

Paper/ Paperboard items accounted for 0.232m³ in estimated litter volume (down from 0.270m³ in Wave 74) in May 2018.

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

- Cups/take away containers (0.097m³, down from 0.141m³ in Wave 74)
- Coffee cups (0.056m³, down from 0.058m³ in Wave 74)
- Newspapers & magazines (0.028m³, up from 0.017m³ in Wave 74)
- Junk mail/ free circulars (0.015m³, down from 0.009m³ in Wave 74)
- Cigarette packets (0.014m³, down from 0.021m³ in Wave 74)

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



3.5 Miscellaneous

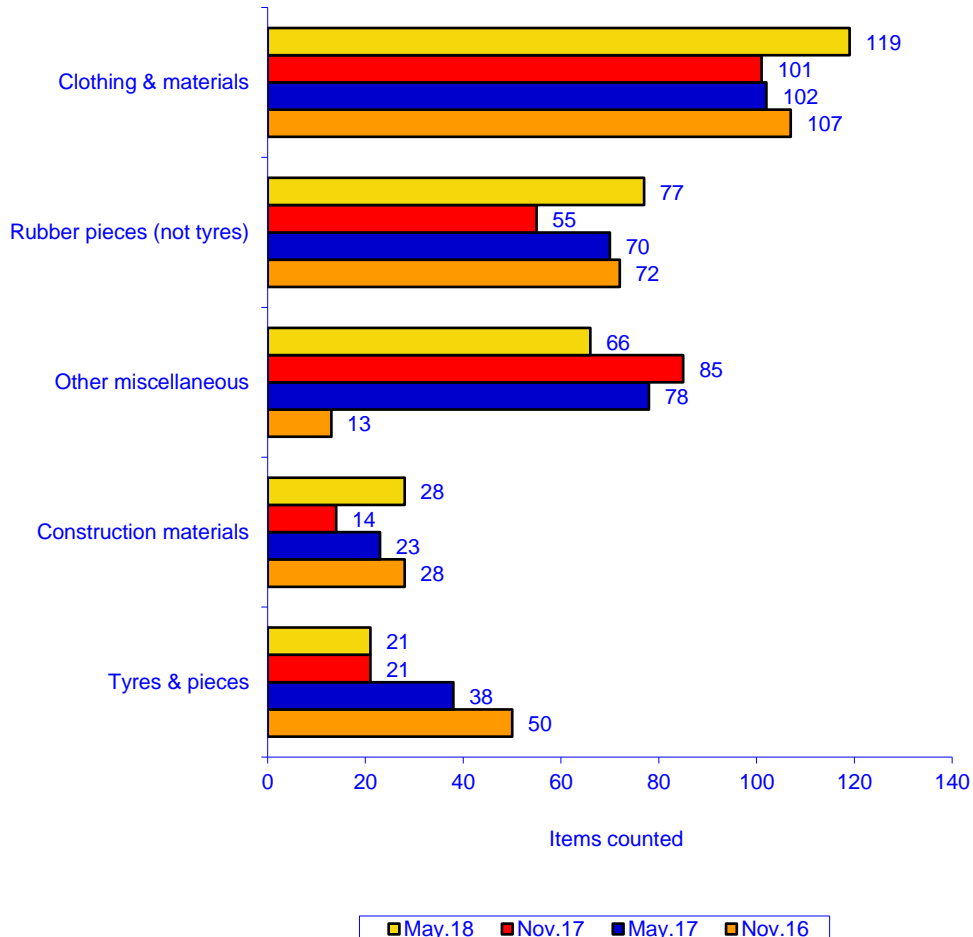
Items

A total of 337 miscellaneous items (down from 342 items in Wave 74) were counted during Wave 75.

The most frequently recorded items included:

- Clothing & materials (119 items, up from 101 items in Wave 74)
- Rubber pieces – not tyres (77 items, up from 55 items in Wave 74)
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 (66 items, down from 85 items in Wave 74)
- Construction materials (28 items, up from 14 items in Wave 74)
- Tyres & pieces (21 items, unchanged from 21 items in Wave 74)

MISCELLANEOUS ITEMS - COUNTS
- top 5



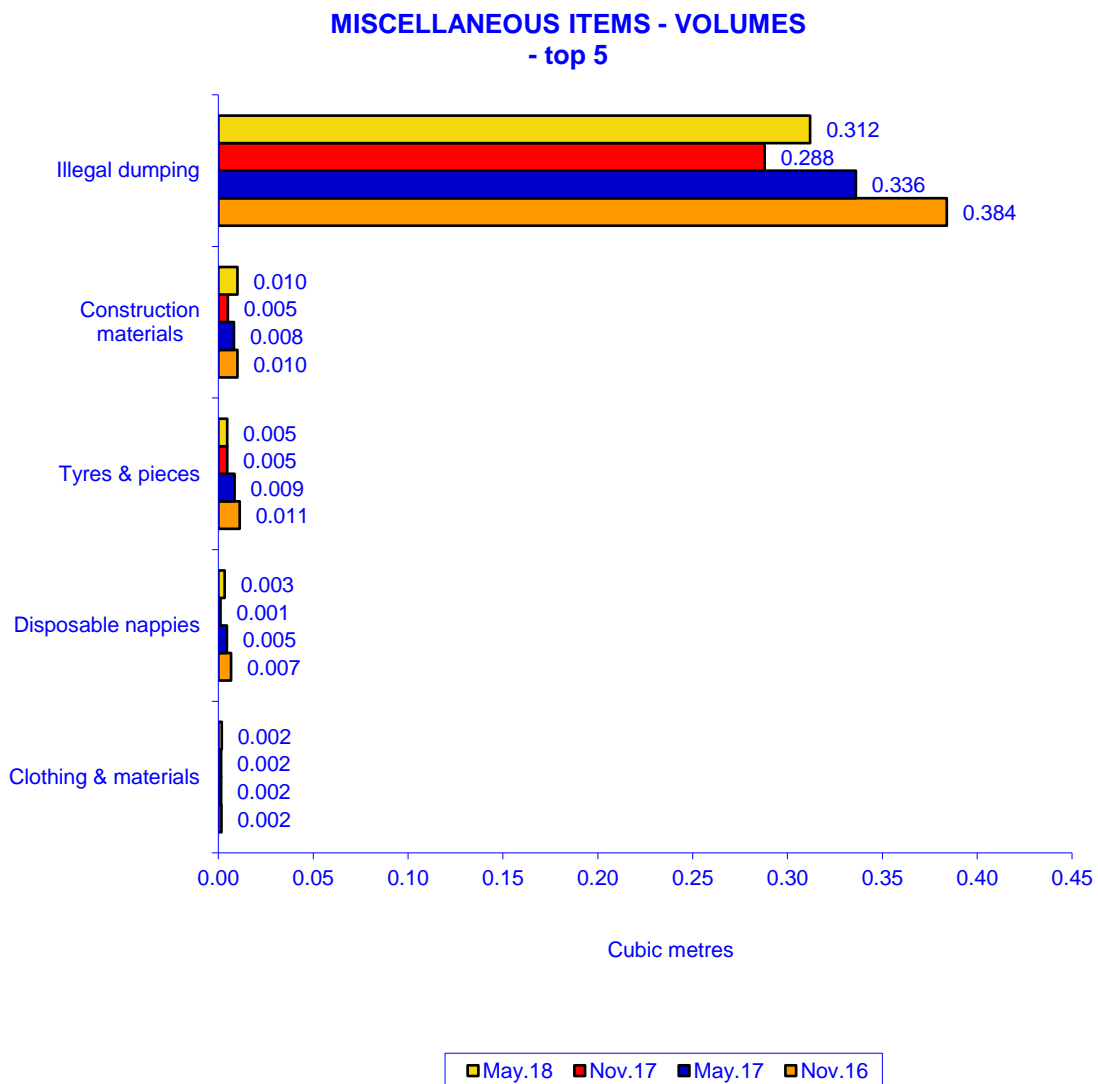
Volume

Miscellaneous litter was associated with an estimated litter volume of 0.333m³ (up from 0.302m³ in Wave 74) during Wave 75.

Illegal dumping remained the major contributor to the total volume of miscellaneous items, with an estimated total volume of 0.312m³ (up from 0.288m³ in Wave 74).

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

- Construction materials (0.010m³, up from 0.005m³ in Wave 74)
- Tyres & pieces (0.005m³, unchanged from 0.005m³ in Wave 74)
- Disposable nappies (0.003m³, up from 0.001m³ in Wave 74)
- Clothing and materials (0.002m³, unchanged from Wave 74)



3.6 Cigarette Butts

Items

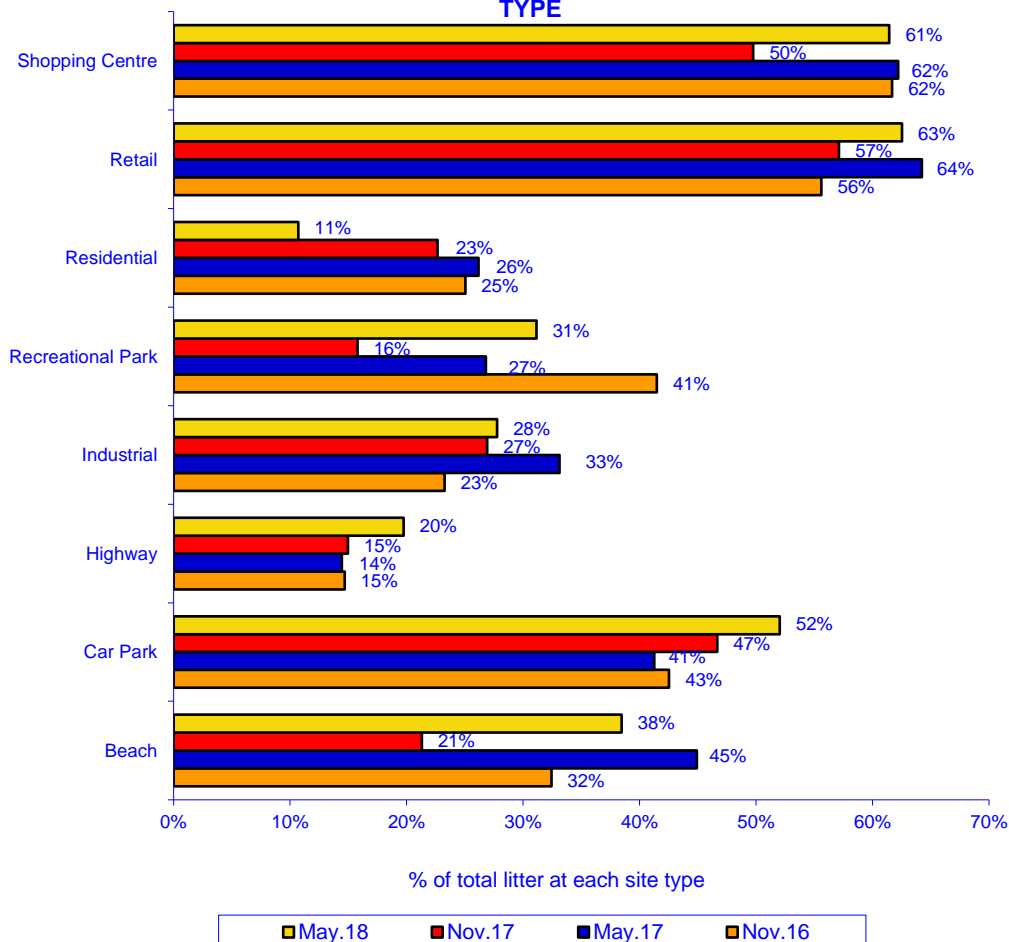
The total number of cigarette butts recorded during Wave 75 was 2,768, up from 2,295 in Wave 74 and also 3,214 in Wave 73 at the same time the previous year.

The proportion of cigarette butts against the total number of litter items was highest at retail sites (63%, up from 57% in Wave 74), and shopping centres (61%, up from 50% in Wave 74).

Cigarette butts also contributed the following proportions of total litter at the following site types:

- Car parks (52%, up from 47% in Wave 74)
- Beaches (38%, up from 21% in Wave 74)
- Recreational parks (31%, up from 16% in Wave 74)
- Industrial sites (28%, up from 27% in Wave 74)
- Highway sites (20%, up from 15% in Wave 74)
- Residential sites (11%, down from 23% in Wave 74)

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

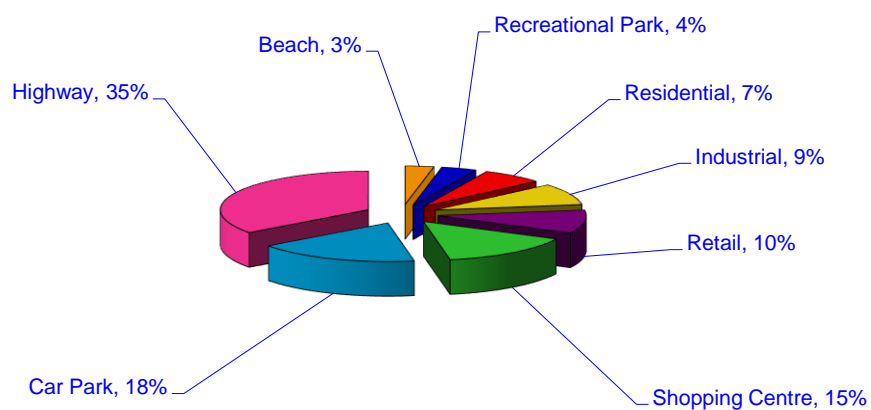
Items

Highways remained the most significant contributor to the total number of litter items counted in May 2018 with 35% (up from 30% in Wave 74) 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 75:

- Shopping Centre (15%, up from 12% in Wave 74)
- Industrial (9%, down from 11% in Wave 74)
- Car Park (18%, unchanged from 18% in Wave 74)
- Retail (10%, down from 11% in from Wave 74)
- Residential (7%, unchanged from 7% in Wave 74)
- Recreational Park (4%, down from 5% in Wave 74)
- Beach (3%, down from 5% from Wave 74)

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, car parks and shopping centres 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 35% (up from 30% in Wave 74) of the total litter items counted in Wave 75.
- Car parks incorporated 15% of the sites surveyed and contributed 18% (unchanged from 18% in Wave 74) of the litter items counted in Wave 75.
- Shopping centres - incorporated 9% of the sites surveyed and contributed 15% (up from 12% in Wave 74) of the litter items counted in Wave 75.

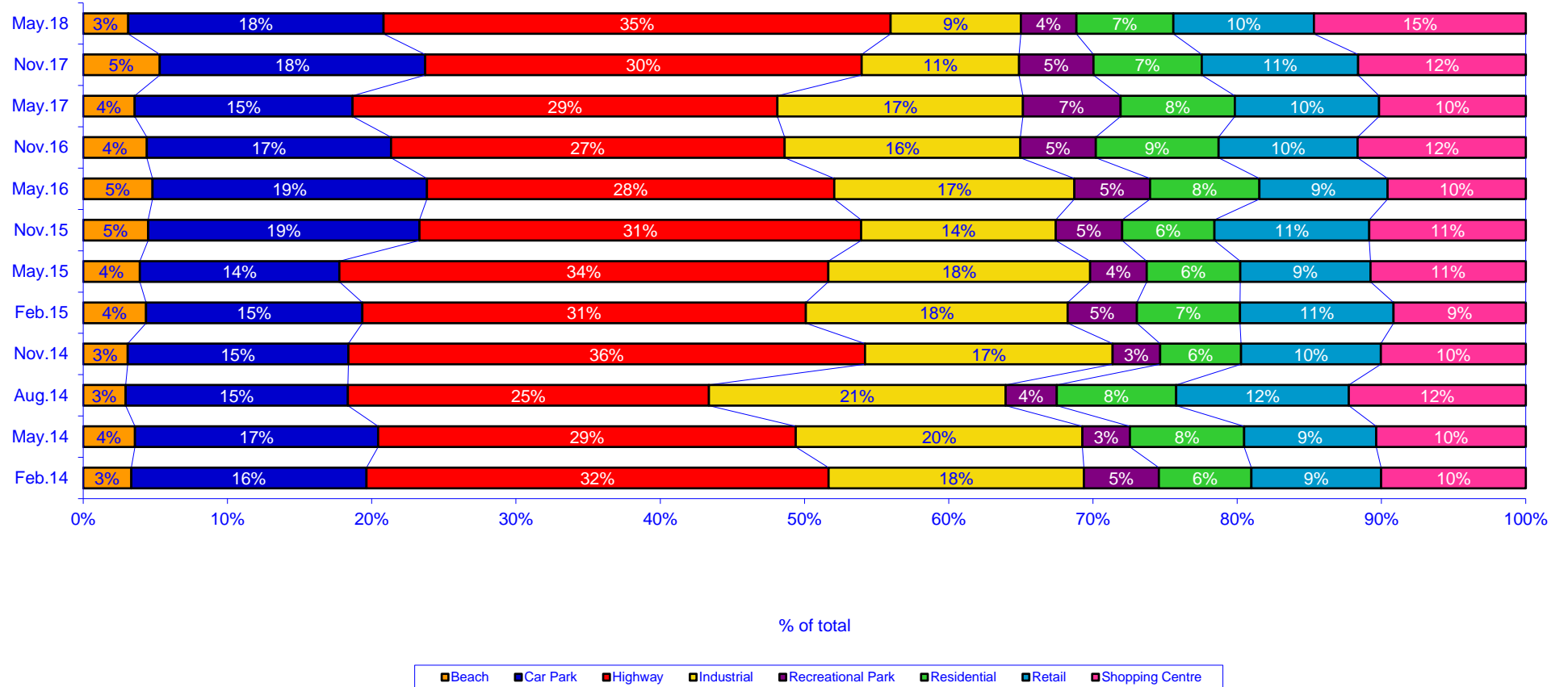
Conversely, residential locations and beaches contributed smaller proportions of litter items to the total litter count than anticipated based upon the proportion of these sites within the overall sample of locations as detailed below:

- Residential areas incorporated 17% of the sites surveyed but contributed only 7% (unchanged from 7% in Wave 74) of the litter items counted in Wave 75.
- Beaches represented 11% of the sites surveyed but contributed only 3% (down from 5% in Wave 74) of the litter counted in Wave 75.

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 2018, the proportions were:

- Retail areas - incorporated 10% of the sites surveyed and contributed 10% (down from 11% in Wave 74) of the litter items counted in Wave 75.
- Industrial sites incorporated 11% of the sites surveyed and contributed 9% (down from 11% in Wave 74) of the total litter items counted in Wave 75.
- Recreational Parks represented 9% of sites surveyed and contributed 4% (down from 5% in Wave 74) of the litter counted in Wave 75.

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

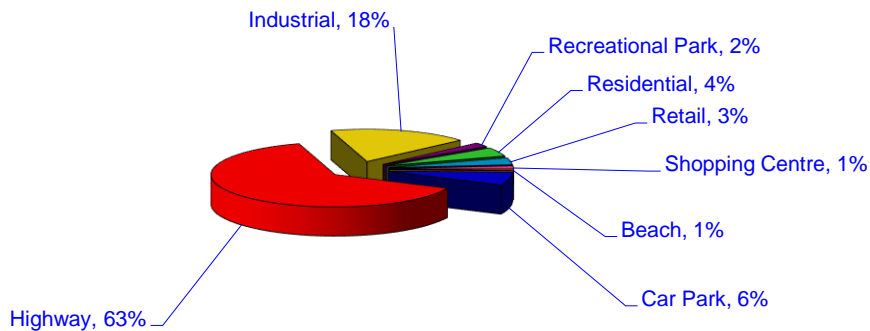


Volume

Almost two thirds (63%, up from 41% in Wave 74) of the total volume of litter estimated during Wave 75 was associated with litter items in highway locations, while almost one fifth (18%, down from 25% in Wave 74) was associated with litter items in industrial sites.

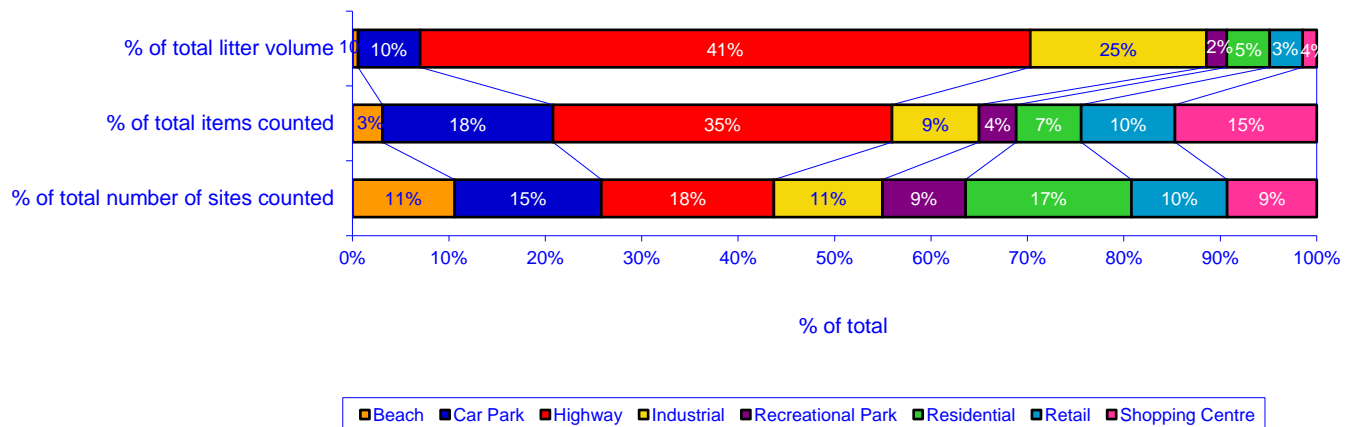
Lower volumes of litter were contributed to the total litter volume by car park sites (6%, down from 10% in Wave 74), residential sites (4%, down from 5% in Wave 74), retail sites (3%, unchanged from Wave 74), recreational park sites (2%, unchanged from Wave 74), shopping centres (1%, down from 4% in Wave 74) and beaches (1%, down from 10% in Wave 74) during Wave 75.

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

The majority (98%, up from 97% in Wave 74) of litter items counted in May 2018 were non-beverage items.

The total number of CDL beverage containers counted was 244 items, down from 172 items in Wave 74.

CDL beverage containers accounted for 93% (down from 96% in Wave 74) of all beverage containers counted during Wave 75.

Data Summary - Items

| KESAB - Litter Strategy Monitoring Wave 75 - May 2018 | | | Items | | | | | | | | | | |
|--|--|------|-----------|-----------|------------|------------|-------------------|-------------|-----------|-----------------|--------------|------------|-------------|
| | | | BEACH | CAR PARK | HIGHWAY | INDUSTRIAL | RECREATIONAL PARK | RESIDENTIAL | RETAIL | SHOPPING CENTRE | METROPOLITAN | REGIONAL | TOTAL ITEMS |
| CIGARETTE BUTTS | | NBEV | 90 | 691 | 521 | 188 | 90 | 54 | 457 | 677 | 1997 | 771 | 2768 |
| GLASS | Alcoholic sodas/spirit-based mixers, all sizes | CDL | | | | | | | | | | | 0 |
| | Beer, all colours of glass, <750ml | CDL | 3 | 1 | 13 | | | 1 | 3 | | 10 | 11 | 21 |
| | Beer, all colours of glass, 750ml+ | CDL | | | 11 | 2 | | | | | 11 | 2 | 13 |
| | Cider/fruit based etc. | CDL | | | | | | | | | | | 0 |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | | 1 | | | | | | 1 | | 1 |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | 2 | | | | | | 2 | | 2 |
| | Flav. water/soft drink (carbonated), <1 litre | CDL | | | | | | | | | | | 0 |
| | Flav. water/soft drink (carbonated), 1 litre+ | CDL | | | | | | | | | | | 0 |
| | Fruit juice, <1 litre | CDL | | | | | | | | | | | 0 |
| | Fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0 |
| | Other glass | NBEV | 2 | 8 | 20 | 14 | | 4 | 5 | 3 | 32 | 24 | 56 |
| | Plain water (carbonated or non-carb), <1 litre | CDL | 1 | | | | | | | 1 | 1 | 1 | 2 |
| | Plain water (carbonated or non-carb), 1 litre+ | CDL | | | 1 | | | | | | 1 | | 1 |
| | Wine & spirit, all sizes | BEV | | | 2 | 2 | | 1 | | | 5 | | 5 |
| Wine cooler, all sizes | CDL | | | | 2 | | | | | | 2 | 2 | |
| TOTAL | | | 6 | 9 | 50 | 20 | 0 | 6 | 8 | 4 | 63 | 40 | 103 |
| METAL | Aerosols - pressure packs | NBEV | | | 3 | 1 | | | 1 | | 3 | 2 | 5 |
| | Alcoholic sodas & spirit-based mixers | CDL | 1 | 2 | 12 | 2 | | 1 | | | 15 | 3 | 18 |
| | Beer, aluminium, all types, all sizes | CDL | | | 5 | | | | | | 3 | 2 | 5 |
| | Cider/fruit based etc. | CDL | | | 2 | | | | | | 2 | | 2 |
| | Flav. water/soft drink, (carbonated), all sizes | CDL | 2 | 1 | 20 | 2 | | 1 | | | 20 | 6 | 26 |
| | Flav. water/soft drink, (non-carb), all sizes | CDL | | 1 | | | | | | | | 1 | 1 |
| | Foil take away | NBEV | | 1 | 22 | | 1 | 3 | 3 | 2 | 26 | 6 | 32 |
| | Food cans (including pet food) | NBEV | | | 8 | 10 | | | | 1 | 15 | 4 | 19 |
| | Industrial cans - all types | NBEV | | | | | | | | | | | 0 |
| | Metal bottle tops and can pull rings | NBEV | 1 | 20 | 91 | 29 | 12 | 6 | 5 | 16 | 98 | 82 | 180 |
| | Metal pieces | NBEV | 1 | 3 | 63 | 6 | | 6 | | 8 | 76 | 11 | 87 |
| | Other foil | NBEV | 5 | 11 | 34 | 6 | 4 | 3 | 2 | 3 | 47 | 21 | 68 |
| TOTAL | | | 10 | 39 | 260 | 56 | 17 | 20 | 11 | 30 | 305 | 138 | 443 |

| KESAB - Litter Strategy Monitoring Wave 75 - May 2018 | | | Items | | | | | | | | | | | |
|--|--|------|-----------|------------|------------|------------|-------------------|-------------|------------|-----------------|--------------|------------|-------------|---|
| | | | BEACH | CAR PARK | HIGHWAY | INDUSTRIAL | RECREATIONAL PARK | RESIDENTIAL | RETAIL | SHOPPING CENTRE | METROPOLITAN | REGIONAL | TOTAL ITEMS | |
| MISCELLANEOUS | Clothing & materials | NBEV | 5 | 16 | 62 | 17 | 10 | 4 | 3 | 2 | 95 | 24 | 119 | |
| | Condoms | NBEV | | | | | | | | | | | 0 | |
| | Construction materials | NBEV | 1 | 2 | 12 | 6 | | 6 | 1 | | 22 | 6 | 28 | |
| | Disposable nappies | NBEV | | | 3 | | | | | | 1 | 2 | 3 | |
| | Ice cream sticks | NBEV | | | 3 | 1 | | | 1 | 5 | 7 | 3 | 10 | |
| | Illegal dumping | NBEV | | | 9 | 4 | | | | | 11 | 2 | 13 | |
| | Other miscellaneous | NBEV | 4 | 17 | 12 | 12 | 4 | 9 | 8 | | 57 | 9 | 66 | |
| | Rubber pieces (not tyres) | NBEV | 1 | 11 | 53 | 5 | 1 | 5 | | 1 | 65 | 12 | 77 | |
| | Syringes | NBEV | | | | | | | | | | | | 0 |
| | Tyres & pieces | NBEV | | | 13 | 6 | | 1 | 1 | | 18 | 3 | 21 | |
| TOTAL | | | 11 | 46 | 167 | 51 | 15 | 25 | 14 | 8 | 276 | 61 | 337 | |
| PAPER/PAPERBOARD | Cartons, flavoured milk, <1 litre | CDL | | 4 | 3 | 2 | | | | | 2 | 7 | 9 | |
| | Cartons, flavoured milk, 1 litre+ | BEV | | | | 1 | | | | | | 1 | 1 | |
| | Cartons, fruit juice, <1 litre | CDL | | | | | | | | | | | 0 | |
| | Cartons, fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0 | |
| | Cartons, milk, plain (white), all sizes | BEV | | | | | | | | | | | 0 | |
| | Cigarette packets | NBEV | | 3 | 38 | 12 | | 6 | 2 | 4 | 52 | 13 | 65 | |
| | Cups/take away containers | NBEV | | 26 | 80 | 7 | 3 | 2 | 5 | 10 | 87 | 46 | 133 | |
| | Coffee cups | NBEV | 3 | 19 | 75 | 6 | 2 | | 5 | 4 | 86 | 28 | 114 | |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | 3 | 1 | | | | | | 4 | | 4 | |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | | | | | | | | | | 0 |
| | Ice cream wrappers | NBEV | 1 | | 3 | | | 2 | 1 | 1 | 7 | 1 | 8 | |
| | Junk mail/free circulars | NBEV | | 5 | 22 | 18 | 1 | 36 | 1 | 4 | 74 | 13 | 87 | |
| | Newspapers & magazines | NBEV | | | 12 | 4 | | 7 | 1 | | 15 | 9 | 24 | |
| | Other paper (including tissues) | NBEV | 44 | 212 | 482 | 88 | 35 | 141 | 88 | 112 | 1074 | 128 | 1202 | |
| | Packages & boxes | NBEV | | 5 | 52 | 28 | 1 | 5 | 2 | 4 | 84 | 13 | 97 | |
| | Paper bags | NBEV | 7 | 10 | 43 | 14 | 7 | 3 | 8 | 4 | 68 | 28 | 96 | |
| Shopper docketts & related shopping paper (eg. lists) | NBEV | 1 | 28 | 6 | 3 | 1 | 7 | 18 | 38 | 71 | 31 | 102 | | |
| Tickets, e.g. bus, ATM, vending machine etc. | NBEV | 1 | 18 | | 7 | 4 | 5 | 3 | 11 | 48 | 1 | 49 | | |
| TOTAL | | | 57 | 333 | 817 | 190 | 54 | 214 | 134 | 192 | 1672 | 319 | 1991 | |

| KESAB - Litter Strategy Monitoring Wave 75 - May 2018 | | | Items | | | | | | | | | | |
|--|--|------------|-------------|-------------|------------|------------|-------------------|-------------|-------------|-----------------|--------------|-------------|-------------|
| | | | BEACH | CAR PARK | HIGHWAY | INDUSTRIAL | RECREATIONAL PARK | RESIDENTIAL | RETAIL | SHOPPING CENTRE | METROPOLITAN | REGIONAL | TOTAL ITEMS |
| PLASTIC | 6 ring can holders | NBEV | | | 4 | 2 | | 3 | | | 7 | 2 | 9 |
| | Bags - heavier glossy typically branded carry bags | NBEV | | 2 | 15 | 1 | | | | | 13 | 5 | 18 |
| | Bags - supermarket type light weight carry bags | NBEV | | | 42 | 2 | 1 | 4 | 2 | 1 | 44 | 8 | 52 |
| | Bread bag tags | NBEV | | 3 | 3 | 1 | 7 | 2 | 4 | 7 | 19 | 8 | 27 |
| | Containers, domestic type | NBEV | | 3 | 14 | 2 | 2 | | 3 | | 20 | 4 | 24 |
| | Containers, industrial e.g. oil | NBEV | | | 5 | 2 | | 1 | | | 7 | 1 | 8 |
| | Drink pouches | CDL | | | | 5 | | | | | 5 | | 5 |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | | 4 | | | | | | 4 | | 4 |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | 6 | | | | | | 6 | | 6 |
| | Flav. water/soft drink (carbonated), <1 litre | CDL | | 2 | 14 | 2 | | | | | 18 | | 18 |
| | Flav. water/soft drink (carbonated), 1 litre+ | CDL | | | 1 | | | | | | 1 | | 1 |
| | Flavoured milk, <1 litre | CDL | | | 18 | | | 1 | | 1 | 17 | 3 | 20 |
| | Flavoured milk, 1 litre+ | BEV | | 1 | 2 | | | | | | 3 | | 3 |
| | Fruit juice, <1 litre | CDL | | 2 | 1 | | 1 | | | | 2 | 2 | 4 |
| | Fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0 |
| | Lollipop sticks | NBEV | 1 | 7 | 5 | 1 | 11 | 4 | | 7 | 21 | 15 | 36 |
| | Other plastic | NBEV | 26 | 84 | 243 | 48 | 27 | 77 | 46 | 76 | 541 | 86 | 627 |
| | Packing tape & straps | NBEV | 2 | 5 | 48 | 5 | 2 | 7 | 1 | 2 | 52 | 20 | 72 |
| | Plain water (carbonated or non-carb), <1 litre | CDL | | 2 | 4 | | 1 | | | | 6 | 1 | 7 |
| | Plain water (carbonated or non-carb), 1 litre+ | CDL | | | | | | | | | | | 0 |
| | Plastic bottle tops | NBEV | 5 | 19 | 92 | 25 | 9 | 27 | 2 | 20 | 158 | 41 | 199 |
| | Sacks - sheeting - other bags | NBEV | | | 30 | 4 | 1 | 2 | | | 28 | 9 | 37 |
| | Snack bags & confectionery wrappers | NBEV | 16 | 39 | 101 | 23 | 22 | 33 | 25 | 39 | 253 | 45 | 298 |
| | Spoons/cutlery | NBEV | | 4 | 12 | 2 | 6 | 4 | 5 | 9 | 26 | 16 | 42 |
| | Straws | NBEV | 6 | 29 | 51 | 14 | 16 | 12 | 19 | 24 | 133 | 38 | 171 |
| | Styrene foam boxes, sheets, etc. | NBEV | | 1 | 17 | 11 | | 3 | | | 26 | 6 | 32 |
| | Take away & cups | NBEV | 4 | 7 | 88 | 22 | 7 | 6 | | 5 | 98 | 41 | 139 |
| | White milk, all sizes | BEV | | | 3 | | | | | | 2 | 1 | 3 |
| Wine cask bladders | BEV | | | | | | | | | | | 0 | |
| TOTAL | | 60 | 210 | 823 | 172 | 113 | 186 | 107 | 191 | 1510 | 352 | 1862 | |
| GRAND TOTAL | | 234 | 1328 | 2638 | 677 | 289 | 505 | 731 | 1102 | 5823 | 1681 | 7504 | |

Data Summary - Volumes

| KESAB - Litter Strategy Monitoring Wave 75 - May 2018 | | Volume - Cubic Metres | | | | | | | | | | | |
|--|--|-----------------------|-----------------|-----------------|-----------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | BEACH | CAR PARK | HIGHWAY | INDUSTRIAL | RECREATIONAL PARK | RESIDENTIAL | RETAIL | SHOPPING CENTRE | METROPOLITAN | REGIONAL | TOTAL ITEMS | |
| CIGARETTE BUTTS | | NBEV | 0.000010 | 0.000079 | 0.000060 | 0.000022 | 0.000010 | 0.000006 | 0.000053 | 0.000078 | 0.00023 | 0.000089 | 0.000318 |
| GLASS | Alcoholic sodas/spirit-based mixers, all sizes | CDL | | | | | | | | | | | 0.000000 |
| | Beer, all colours of glass, <750ml | CDL | 0.001389 | 0.000463 | 0.006018 | | | 0.000463 | 0.001389 | | 0.004629 | 0.005092 | 0.009721 |
| | Beer, all colours of glass, 750ml+ | CDL | | | 0.009980 | 0.001815 | | | | | 0.009980 | 0.001815 | 0.011795 |
| | Cider/fruit based etc. | CDL | | | | | | | | | | | 0.000000 |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | | 0.000554 | | | | | | 0.000554 | | 0.000554 |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | 0.000792 | | | | | | 0.000792 | | 0.000792 |
| | Flav. water/soft drink (carbonated), <1 litre | CDL | | | | | | | | | | | 0.000000 |
| | Flav. water/soft drink (carbonated), 1 litre+ | CDL | | | | | | | | | | | 0.000000 |
| | Fruit juice, <1 litre | CDL | | | | | | | | | | | 0.000000 |
| | Fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0.000000 |
| | Other glass | NBEV | 0.000039 | 0.000157 | 0.000393 | 0.000275 | | 0.000079 | 0.000098 | 0.000059 | 0.000628 | 0.000471 | 0.001100 |
| | Plain water (carbonated or non-carb), <1 litre | CDL | 0.000581 | | | | | | | 0.000581 | 0.000581 | 0.000581 | 0.001162 |
| | Plain water (carbonated or non-carb), 1 litre+ | CDL | | | 0.001059 | | | | | | 0.001059 | | 0.001059 |
| | Wine & spirit, all sizes | BEV | | | 0.001783 | 0.001783 | | 0.000891 | | | 0.004457 | | 0.004457 |
| Wine cooler, all sizes | CDL | | | | 0.000749 | | | | | | 0.000749 | 0.000749 | |
| TOTAL | | 0.002009 | 0.000620 | 0.020579 | 0.004621 | 0.000000 | 0.001433 | 0.001487 | 0.000640 | 0.022681 | 0.008708 | 0.031389 | |
| METAL | Aerosols - pressure packs | NBEV | | | 0.002053 | 0.000684 | | | 0.000684 | | 0.002053 | 0.001368 | 0.003421 |
| | Alcoholic sodas & spirit-based mixers | CDL | 0.000431 | 0.000863 | 0.005177 | 0.000863 | | 0.000431 | | | 0.006471 | 0.001294 | 0.007765 |
| | Beer, aluminium, all types, all sizes | CDL | | | 0.002157 | | | | | | 0.001294 | 0.000863 | 0.002157 |
| | Cider/fruit based etc. | CDL | | | 0.000863 | | | | | | 0.000863 | | 0.000863 |
| | Flav. water/soft drink, (carbonated), all sizes | CDL | 0.000851 | 0.000426 | 0.008511 | 0.000851 | | 0.000426 | | | 0.008511 | 0.002553 | 0.011064 |
| | Flav. water/soft drink, (non-carb), all sizes | CDL | | 0.000382 | | | | | | | | 0.000382 | 0.000382 |
| | Foil take away | NBEV | | 0.000462 | 0.010172 | | 0.000462 | 0.001387 | 0.001387 | 0.000925 | 0.012022 | 0.002774 | 0.014796 |
| | Food cans (including pet food) | NBEV | | | 0.003710 | 0.004638 | | | | 0.000464 | 0.006957 | 0.001855 | 0.008812 |
| | Industrial cans - all types | NBEV | | | | | | | | | | | 0.000000 |
| | Metal bottle tops and can pull rings | NBEV | 0.000004 | 0.000080 | 0.000364 | 0.000116 | 0.000048 | 0.000024 | 0.000020 | 0.000064 | 0.000392 | 0.000328 | 0.000720 |
| | Metal pieces | NBEV | 0.000011 | 0.000032 | 0.000668 | 0.000064 | | 0.000064 | | 0.000085 | 0.000806 | 0.000117 | 0.000922 |
| | Other foil | NBEV | 0.000008 | 0.000017 | 0.000053 | 0.000009 | 0.000006 | 0.000005 | 0.000003 | 0.000005 | 0.000073 | 0.000033 | 0.000106 |
| | TOTAL | | 0.001305 | 0.002261 | 0.033728 | 0.007225 | 0.000517 | 0.002336 | 0.002095 | 0.001542 | 0.039441 | 0.011567 | 0.051008 |

| KESAB - Litter Strategy Monitoring Wave 75 - May 2018 | | | Volume - Cubic Metres | | | | | | | | | | |
|--|--|----------|-----------------------|-----------------|-----------------|-----------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | BEACH | CAR PARK | HIGHWAY | INDUSTRIAL | RECREATIONAL PARK | RESIDENTIAL | RETAIL | SHOPPING CENTRE | METROPOLITAN | REGIONAL | TOTAL ITEMS |
| MISCELLANEOUS | Clothing & materials | NBEV | 0.000077 | 0.000245 | 0.000949 | 0.000260 | 0.000153 | 0.000061 | 0.000046 | 0.000031 | 0.001454 | 0.000367 | 0.001821 |
| | Condoms | NBEV | | | | | | | | | | | 0.000000 |
| | Construction materials | NBEV | 0.000360 | 0.000720 | 0.004320 | 0.002160 | | 0.002160 | 0.000360 | | 0.007920 | 0.002160 | 0.010080 |
| | Disposable nappies | NBEV | | | 0.003375 | | | | | | 0.001125 | 0.002250 | 0.003375 |
| | Ice cream sticks | NBEV | | | 0.000003 | 0.000001 | | | 0.000001 | 0.000005 | 0.000006 | 0.000003 | 0.000009 |
| | Illegal dumping | NBEV | | | 0.216000 | 0.096000 | | | | | 0.264000 | 0.048000 | 0.312000 |
| | Other miscellaneous | NBEV | 0.000054 | 0.000230 | 0.000162 | 0.000162 | 0.000054 | 0.000122 | 0.000108 | | 0.000769 | 0.000122 | 0.000891 |
| | Rubber pieces (not tyres) | NBEV | 0.000000 | 0.000002 | 0.000009 | 0.000001 | 0.000000 | 0.000001 | | 0.000000 | 0.000011 | 0.000002 | 0.000013 |
| | Syringes | NBEV | | | | | | | | | | | 0.000000 |
| | Tyres & pieces | NBEV | | | 0.002925 | 0.001350 | | 0.000225 | 0.000225 | | 0.004050 | 0.000675 | 0.004725 |
| TOTAL | | | 0.000491 | 0.001196 | 0.227742 | 0.099934 | 0.000207 | 0.002569 | 0.000740 | 0.000035 | 0.279335 | 0.053578 | 0.332914 |
| PAPER/PAPERBOARD | Cartons, flavoured milk, <1 litre | CDL | | 0.002690 | 0.002017 | 0.001345 | | | | | 0.001345 | 0.004707 | 0.006052 |
| | Cartons, flavoured milk, 1 litre+ | BEV | | | | 0.001013 | | | | | | 0.001013 | 0.001013 |
| | Cartons, fruit juice, <1 litre | CDL | | | | | | | | | | | 0.000000 |
| | Cartons, fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0.000000 |
| | Cartons, milk, plain (white), all sizes | BEV | | | | | | | | | | | 0.000000 |
| | Cigarette packets | NBEV | | 0.000654 | 0.008279 | 0.002614 | | 0.001307 | 0.000436 | 0.000871 | 0.011329 | 0.002832 | 0.014162 |
| | Cups/take away containers | NBEV | | 0.018953 | 0.058316 | 0.005103 | 0.002187 | 0.001458 | 0.003645 | 0.007290 | 0.063419 | 0.033532 | 0.096950 |
| | Coffee cups | NBEV | 0.001470 | 0.009310 | 0.036752 | 0.002940 | 0.000980 | | 0.002450 | 0.001960 | 0.042142 | 0.013721 | 0.055863 |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | 0.000907 | 0.000302 | | | | | | 0.001210 | | 0.001210 |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | | | | | | | | | 0.000000 |
| | Ice cream wrappers | NBEV | 0.000002 | | 0.000007 | | | 0.000005 | 0.000002 | 0.000002 | 0.000017 | 0.000002 | 0.000019 |
| | Junk mail/free circulars | NBEV | | 0.000870 | 0.003828 | 0.003132 | 0.000174 | 0.006264 | 0.000174 | 0.000696 | 0.012876 | 0.002262 | 0.015138 |
| | Newspapers & magazines | NBEV | | | 0.014160 | 0.004720 | | 0.008260 | 0.001180 | | 0.017700 | 0.010620 | 0.028320 |
| | Other paper (including tissues) | NBEV | 0.000149 | 0.000717 | 0.001629 | 0.000297 | 0.000118 | 0.000477 | 0.000297 | 0.000379 | 0.003630 | 0.000433 | 0.004063 |
| | Packages & boxes | NBEV | | 0.000400 | 0.004160 | 0.002240 | 0.000080 | 0.000400 | 0.000160 | 0.000320 | 0.006720 | 0.001040 | 0.007760 |
| | Paper bags | NBEV | 0.000074 | 0.000106 | 0.000455 | 0.000148 | 0.000074 | 0.000032 | 0.000085 | 0.000042 | 0.000719 | 0.000296 | 0.001016 |
| | Shopper docketts & related shopping paper (eg. lists) | NBEV | 0.000002 | 0.000057 | 0.000012 | 0.000006 | 0.000002 | 0.000014 | 0.000037 | 0.000077 | 0.000144 | 0.000063 | 0.000207 |
| Tickets, e.g. bus, ATM, vending machine etc. | NBEV | 0.000001 | 0.000016 | | 0.000006 | 0.000004 | 0.000004 | 0.000003 | 0.000010 | 0.000042 | 0.000001 | 0.000043 | |
| TOTAL | | | 0.001698 | 0.034679 | 0.129918 | 0.023565 | 0.003619 | 0.018221 | 0.008468 | 0.011647 | 0.161293 | 0.070522 | 0.231815 |

| KESAB - Litter Strategy Monitoring Wave 75 - May 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 | | | 0.000006 | 0.000003 | | 0.000005 | | | 0.000011 | 0.000003 | 0.000014 |
| | Bags - heavier glossy typically branded carry bags | NBEV | | 0.000175 | 0.001314 | 0.000088 | | | | | 0.001139 | 0.000438 | 0.001577 |
| | Bags - supermarket type light weight carry bags | NBEV | | | 0.001425 | 0.000068 | 0.000034 | 0.000136 | 0.000068 | 0.000034 | 0.001493 | 0.000272 | 0.001765 |
| | Bread bag tags | NBEV | | 0.000001 | 0.000001 | 0.000000 | 0.000002 | 0.000000 | 0.000001 | 0.000002 | 0.000004 | 0.000002 | 0.000006 |
| | Containers, domestic type | NBEV | | 0.024972 | 0.116536 | 0.016648 | 0.016648 | | 0.024972 | | 0.166480 | 0.033296 | 0.199776 |
| | Containers, industrial e.g. oil | NBEV | | | 0.112290 | 0.044916 | | 0.022458 | | | 0.157206 | 0.022458 | 0.179664 |
| | Drink pouches | CDL | | | | 0.000431 | | | | | 0.000431 | | 0.000431 |
| | Flav. water/fruit j. drink/sports drink (non-carb), <1 litre | CDL | | | 0.002950 | | | | | | 0.002950 | | 0.002950 |
| | Flav. water/fruit j. drink/sports drink (non-carb), 1 litre+ | CDL | | | 0.007207 | | | | | | 0.007207 | | 0.007207 |
| | Flav. water/soft drink (carbonated), <1 litre | CDL | | 0.001244 | 0.008710 | 0.001244 | | | | | 0.011198 | | 0.011198 |
| | Flav. water/soft drink (carbonated), 1 litre+ | CDL | | | 0.001654 | | | | | | 0.001654 | | 0.001654 |
| | Flavoured milk, <1 litre | CDL | | | 0.009589 | | | 0.000533 | | 0.000533 | 0.009056 | 0.001598 | 0.010654 |
| | Flavoured milk, 1 litre+ | BEV | | 0.002137 | 0.004273 | | | | | | 0.006410 | | 0.006410 |
| | Fruit juice, <1 litre | CDL | | 0.000800 | 0.000400 | | 0.000400 | | | | 0.000800 | 0.000800 | 0.001600 |
| | Fruit juice, 1 litre+ | BEV | | | | | | | | | | | 0.000000 |
| | Lollipop sticks | NBEV | 0.000001 | 0.000004 | 0.000003 | 0.000001 | 0.000006 | 0.000002 | | 0.000004 | 0.000011 | 0.000008 | 0.000019 |
| | Other plastic | NBEV | 0.000033 | 0.000105 | 0.000304 | 0.000060 | 0.000034 | 0.000096 | 0.000058 | 0.000095 | 0.000676 | 0.000108 | 0.000784 |
| | Packing tape & straps | NBEV | 0.000001 | 0.000001 | 0.000013 | 0.000001 | 0.000001 | 0.000002 | 0.000000 | 0.000001 | 0.000014 | 0.000005 | 0.000019 |
| | Plain water (carbonated or non-carb), <1 litre | CDL | | 0.001576 | 0.003152 | | 0.000788 | | | | 0.004727 | 0.000788 | 0.005515 |
| | Plain water (carbonated or non-carb), 1 litre+ | CDL | | | | | | | | | | | 0.000000 |
| | Plastic bottle tops | NBEV | 0.000040 | 0.000152 | 0.000736 | 0.000200 | 0.000072 | 0.000216 | 0.000016 | 0.000160 | 0.001265 | 0.000328 | 0.001593 |
| | Sacks - sheeting - other bags | NBEV | | | 0.000009 | 0.000001 | 0.000000 | 0.000001 | | | 0.000009 | 0.000003 | 0.000012 |
| | Snack bags & confectionery wrappers | NBEV | 0.000125 | 0.000305 | 0.000791 | 0.000180 | 0.000172 | 0.000258 | 0.000196 | 0.000305 | 0.001981 | 0.000352 | 0.002333 |
| | Spoons/cutlery | NBEV | | 0.000038 | 0.000115 | 0.000019 | 0.000058 | 0.000038 | 0.000048 | 0.000086 | 0.000250 | 0.000154 | 0.000403 |
| | Straws | NBEV | 0.000025 | 0.000120 | 0.000210 | 0.000058 | 0.000066 | 0.000050 | 0.000078 | 0.000099 | 0.000549 | 0.000157 | 0.000705 |
| | Styrene foam boxes, sheets, etc. | NBEV | | 0.000038 | 0.000638 | 0.000413 | | 0.000113 | | | 0.000975 | 0.000225 | 0.001200 |
| | Take away & cups | NBEV | 0.000828 | 0.001449 | 0.018218 | 0.004554 | 0.001449 | 0.001242 | | 0.001035 | 0.020288 | 0.008488 | 0.028776 |
| | White milk, all sizes | BEV | | | 0.006410 | | | | | | 0.004273 | 0.002137 | 0.006410 |
| | Wine cask bladders | BEV | | | | | | | | | | | 0.000000 |
| | TOTAL | | | 0.001052 | 0.033117 | 0.296953 | 0.068885 | 0.019729 | 0.025149 | 0.025437 | 0.002353 | 0.401057 | 0.071619 |
| GRAND TOTAL | | | 0.006565 | 0.071953 | 0.708980 | 0.204252 | 0.024082 | 0.049714 | 0.038279 | 0.016296 | 0.904038 | 0.216082 | 1.120120 |

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 |
| TOTAL | 20556 | 15036 | 5520 | 0.73146527 | 21543 | 15889 | 5654 | 0.73754816 | 22810 | 15677 | 7133 | 0.68728628 | 22795 | 15429 | 7366 | 0.67685896 |
| AVERAGE New as % of Old | | | | 0.74124442 | | | | 0.76220572 | | | | 0.74164965 | | | | 0.73829497 |
| OVERALL Mean New as % of Old | 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 |
| | New as % of Old | 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 |
| | New as % of Old | 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 |
| | New as % of Old | 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 |
| | New as % of Old | 1 | 1 | 0.89 | 0.83 | 0.52 | 1 | 1 | 0.49 | 0.60 | 1 | 6.7242631 |
| Average New as % of Old | | 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 |
|---|---------------------------------|-------------|-------------|-------------|-------------|-----------------|-------------|-------------------|---------------|--------------|-------------|--------------|
| 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 |
| | 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% | |
| | % change from Old to New | 2.1% | 1.8% | 3.0% | 3.1% | 2.5% | 2.7% | 1.1% | -16.2% | -6.3% | 6.3% | |
| 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 |
| | 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% | |
| | % change from Old to New | 2.0% | 1.2% | 3.3% | 2.5% | 1.3% | 2.7% | 1.0% | -14.1% | -6.2% | 6.2% | |
| 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 |
| | 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% | |
| | % change from Old to New | 2.4% | 1.4% | 2.3% | 2.6% | -0.8% | 3.3% | 1.0% | -12.3% | -8.1% | 8.1% | |
| 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 |
| | 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% | |
| | % change from Old to New | 2.4% | 1.5% | 3.7% | 2.6% | -2.3% | 3.8% | 1.5% | -13.2% | -8.7% | 8.7% | |
| Average % difference from Old to New | | 2% | 1% | 3% | 3% | 0% | 3% | 1% | -14% | -7% | 7% | |

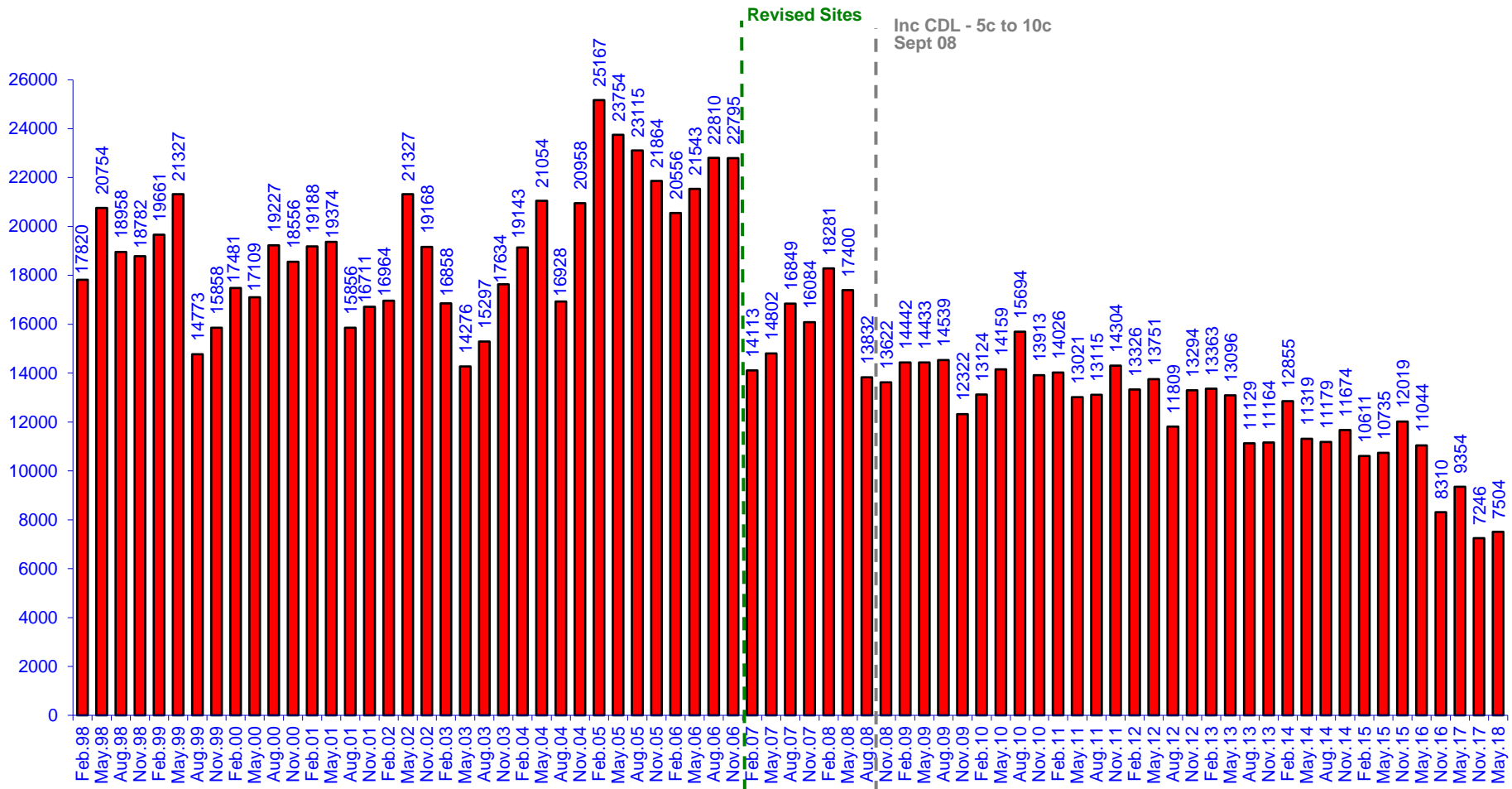
| Volumes within material categories across all 151 sites including either 11 original or 11 revised sites | Wave 32 | | | | Wave 33 | | | | Wave 34 | | | | Wave 35 | | | |
|--|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|---------------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

| 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 | | |
| | New as % of Old | 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 | | |
| | New as % of Old | 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 | | |
| | New as % of Old | 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 | | |
| | New as % of Old | 1 | 1 | 1.00 | 1.12 | 0.70 | 1 | 1 | 0.79 | 0.73 | 1 | |
| Average New as % of Old | | 1 | 1 | 0.99 | 1.11 | 0.51 | 1 | 1 | 0.67 | 0.67 | 1 | |

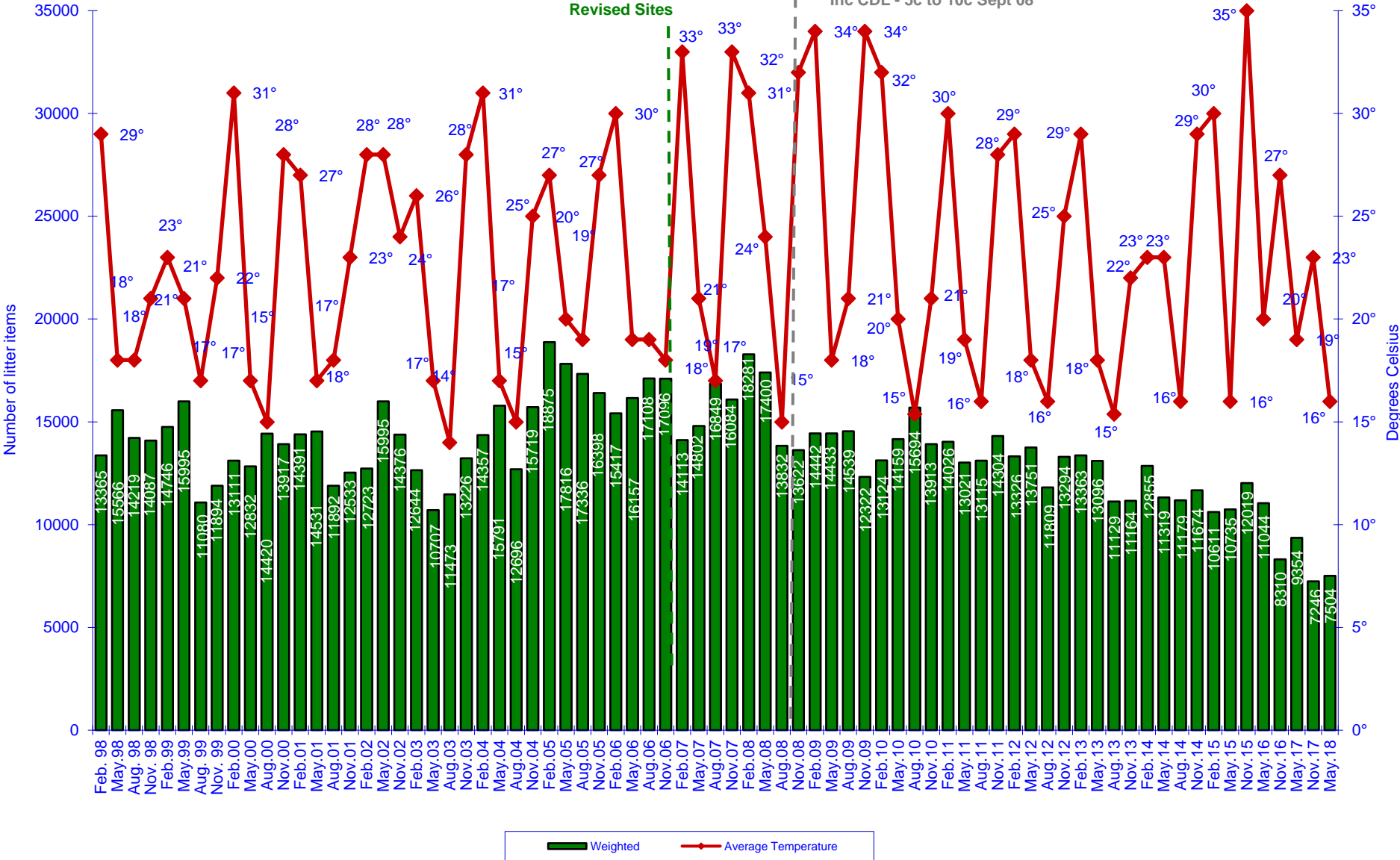
| Proportions of total volume within site type across all 151 sites including either 11 original or 11 revised sites | | Residential | Beach | Industrial | Car Park | Shopping Centre | Retail | Recreational Park | Highway | Metropolitan | Regional | TOTAL |
|--|---------------------------------|-------------|-------------|-------------|-------------|-----------------|-------------|-------------------|---------------|---------------|--------------|----------------|
| Wave 32 | Old | 0.05441 | 0.02998 | 0.57970 | 0.13090 | 0.01177 | 0.01877 | 0.02922 | 2.47428 | 2.54585 | 0.78318 | 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 |
| | 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% | |
| | % change from Old to New | 0.8% | 0.4% | 8.2% | 3.7% | 0.1% | 0.3% | 0.4% | -13.8% | -11.1% | 11.1% | |
| 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 |
| | 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% | |
| | % change from Old to New | 0.8% | 0.4% | 6.6% | 0.8% | -0.7% | 0.3% | 0.5% | -8.8% | -7.6% | 7.7% | |
| 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 |
| | 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% | |
| | % change from Old to New | 1.0% | 0.9% | 4.8% | 1.8% | -1.5% | 0.2% | 0.1% | -7.2% | -8.2% | 8.2% | |
| 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 |
| | 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% | |
| | % change from Old to New | 0.8% | 0.1% | 2.7% | 1.1% | -0.2% | 0.3% | 0.1% | -4.8% | -7.8% | 7.8% | |
| Average % difference from Old to New | | 1% | 0% | 6% | 2% | -1% | 0% | 0% | -9% | -9% | 9% | |

Unweighted Tracking Graphs - Items

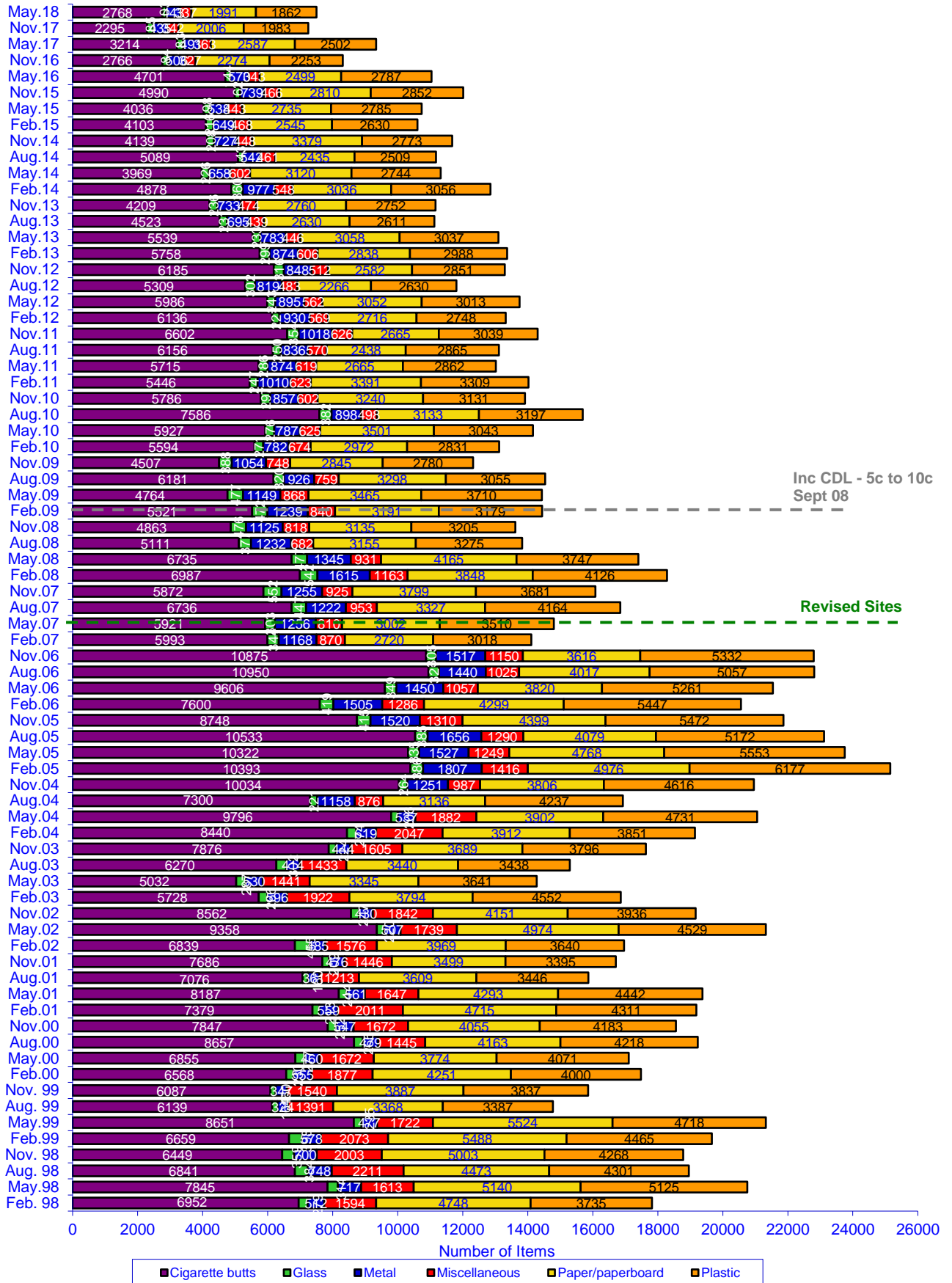
Total Litter - Number of Items



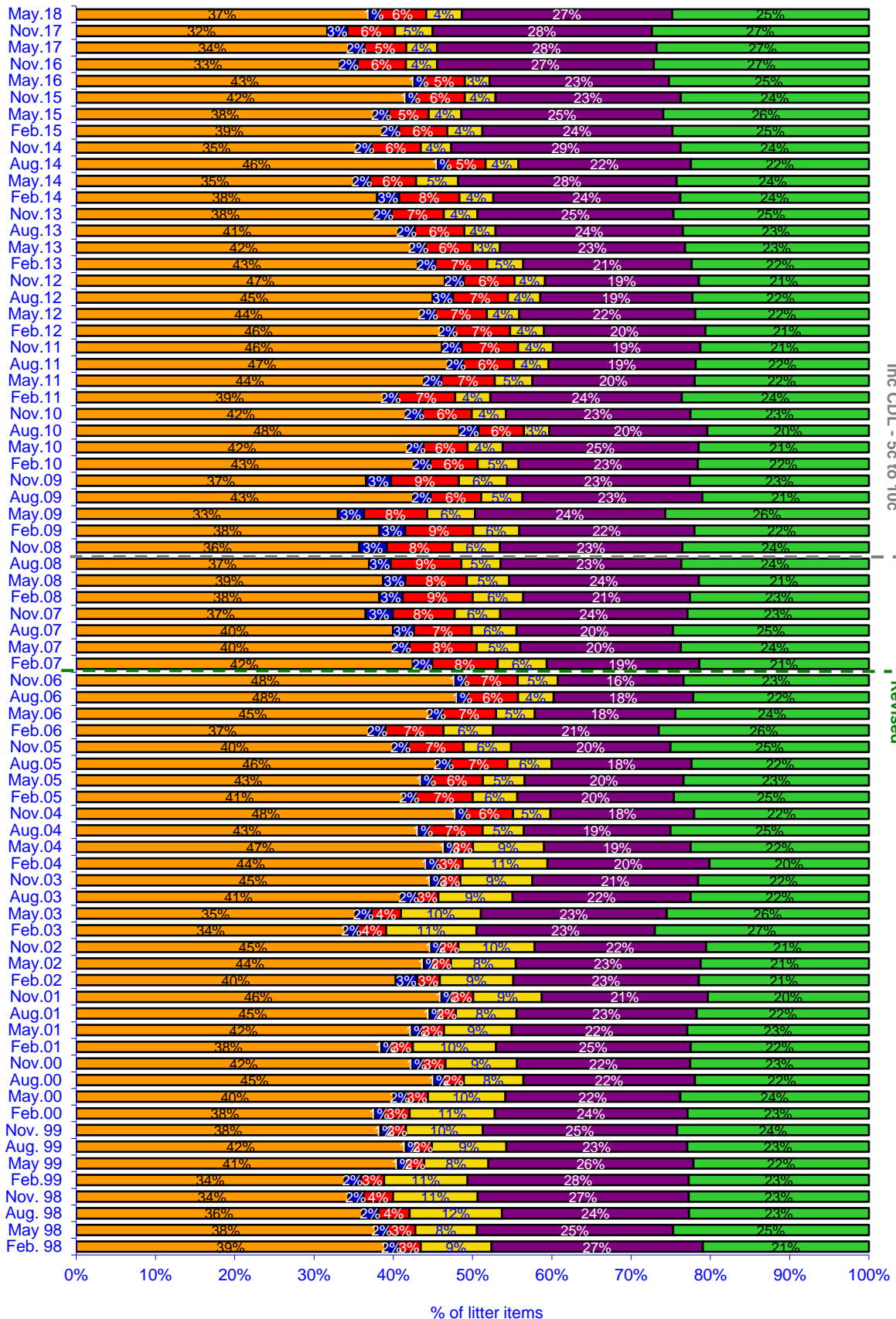
Weather Temperature and Total Number of Litter Items



Number of Litter Items by Material Type

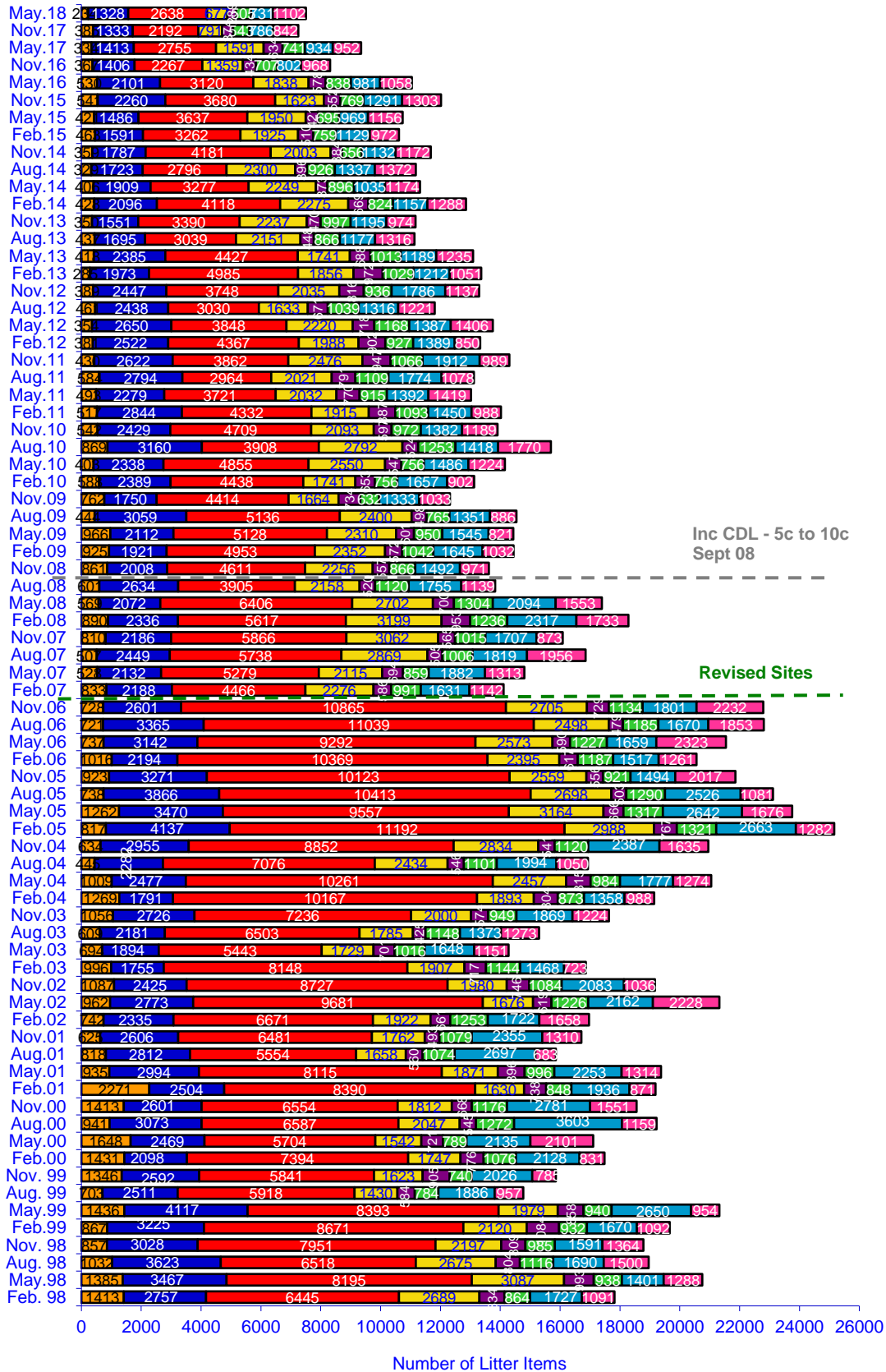


Proportion of Total Litter Stream by Material Type

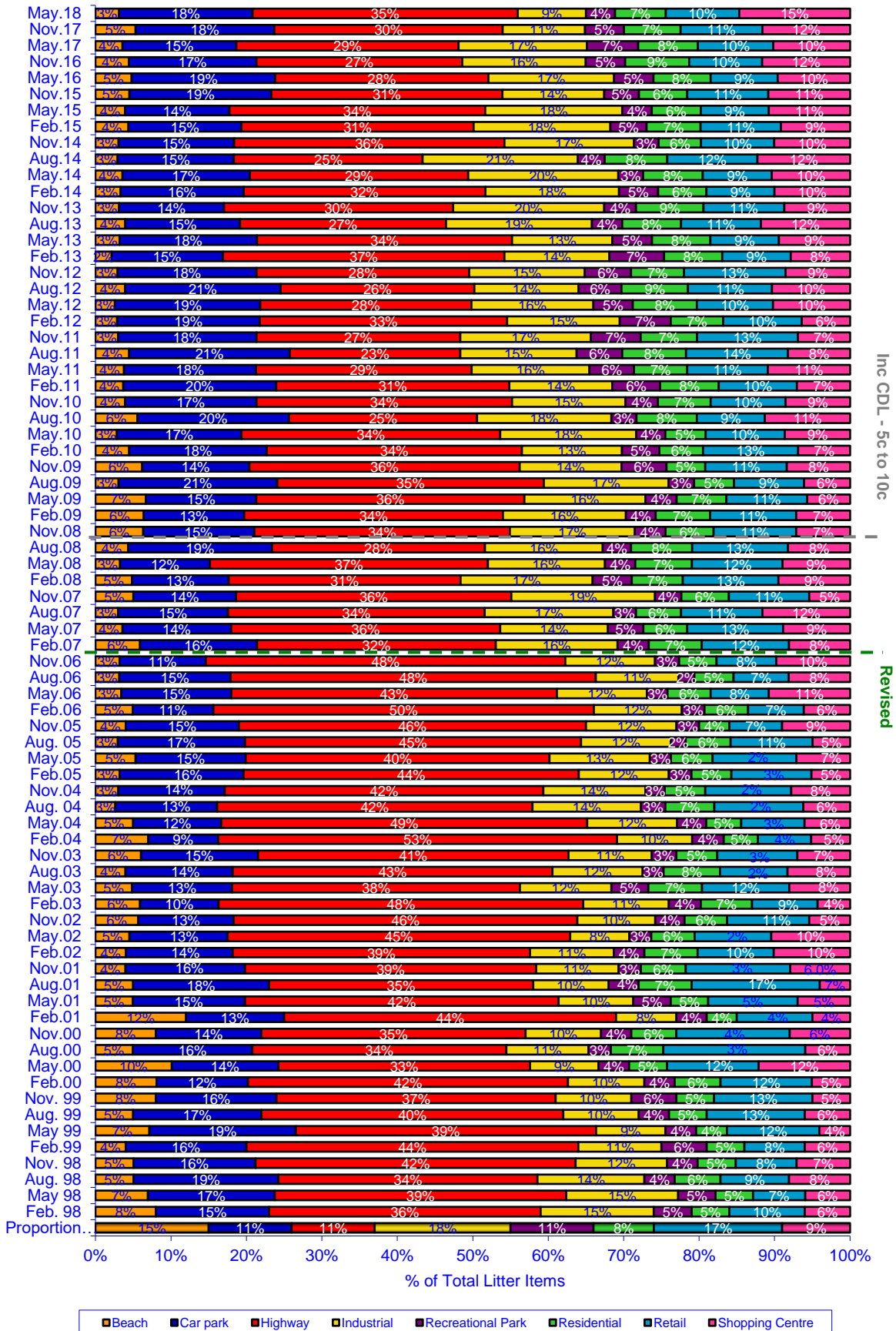


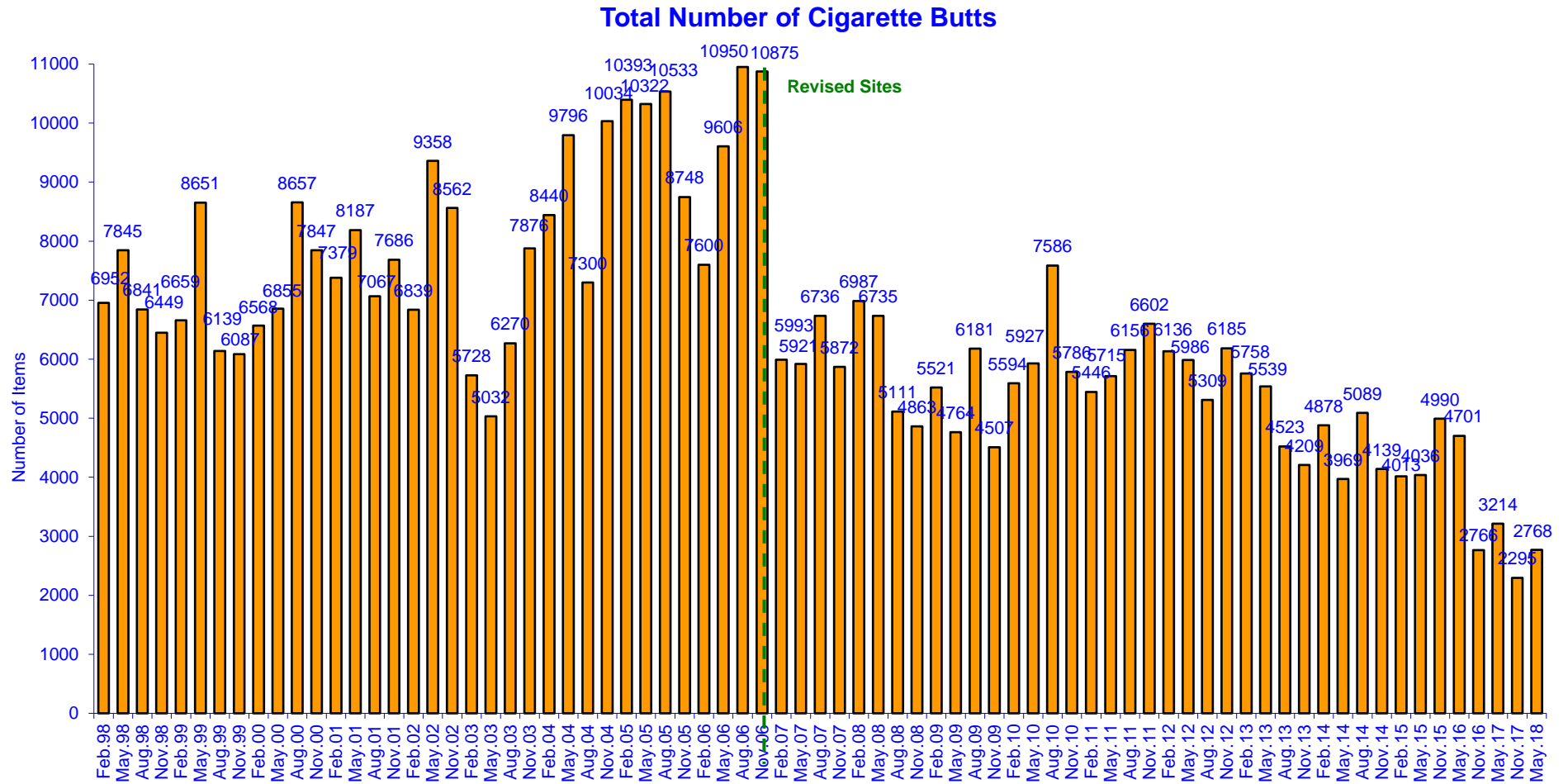
■ Cigarette butts ■ Glass ■ Metal ■ Miscellaneous ■ Paper/paperboard ■ Plastic

Number of Litter Items by Site Type

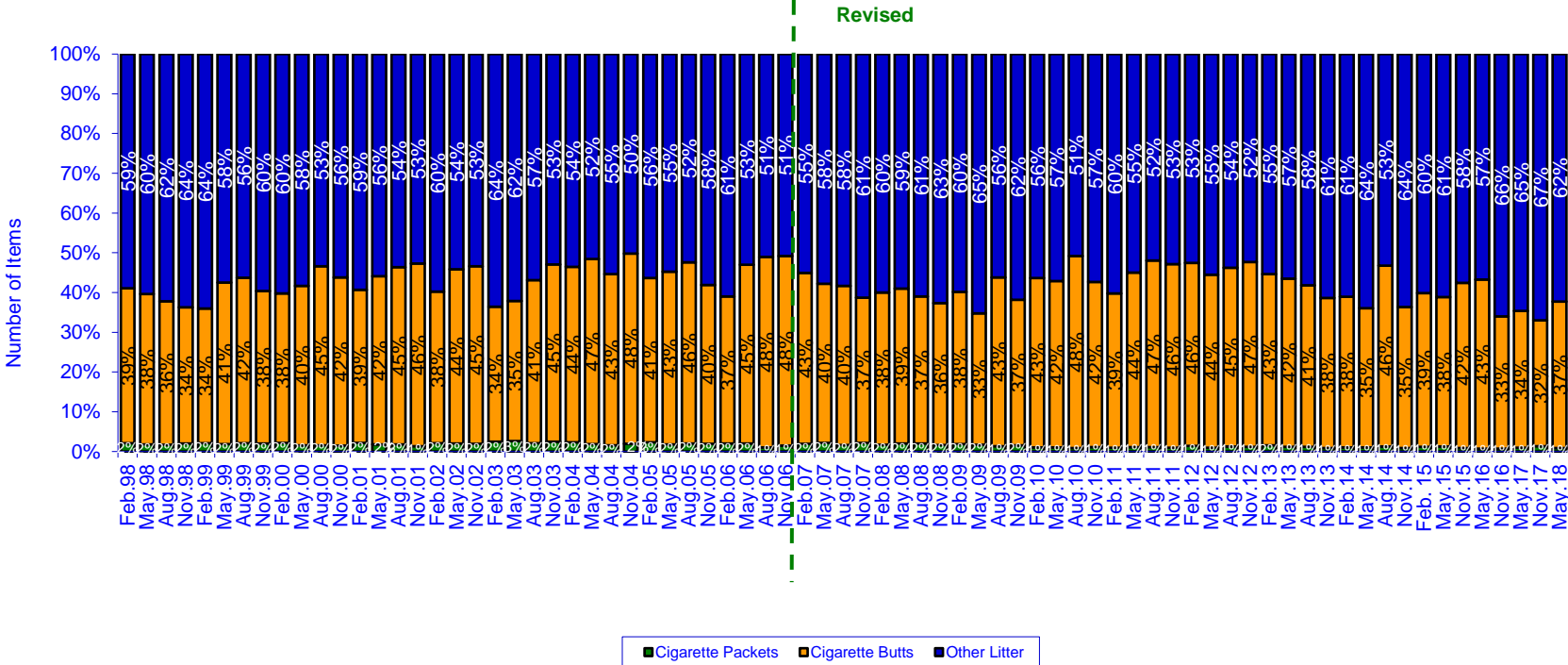


Proportion of Total Litter by Site Type

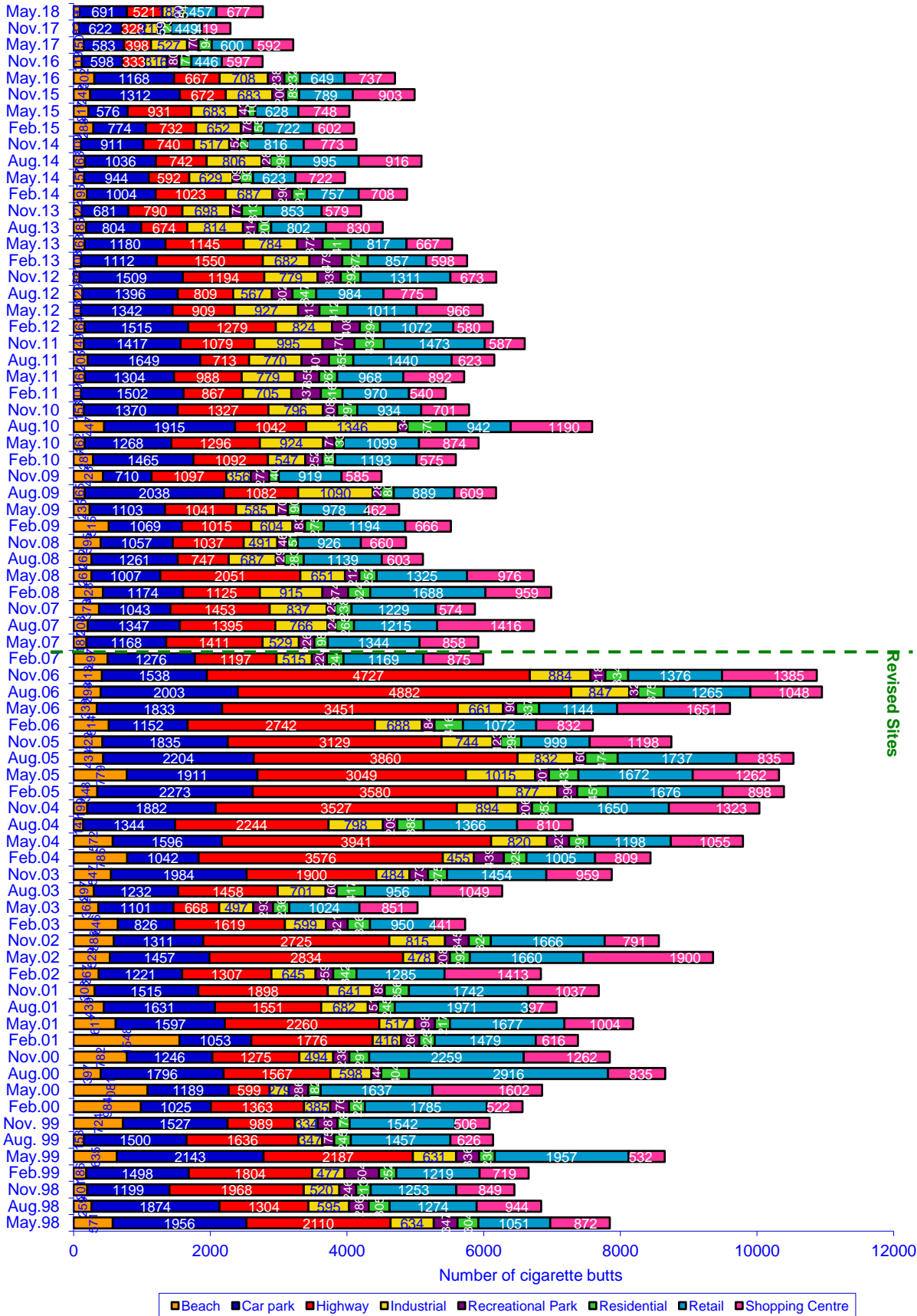




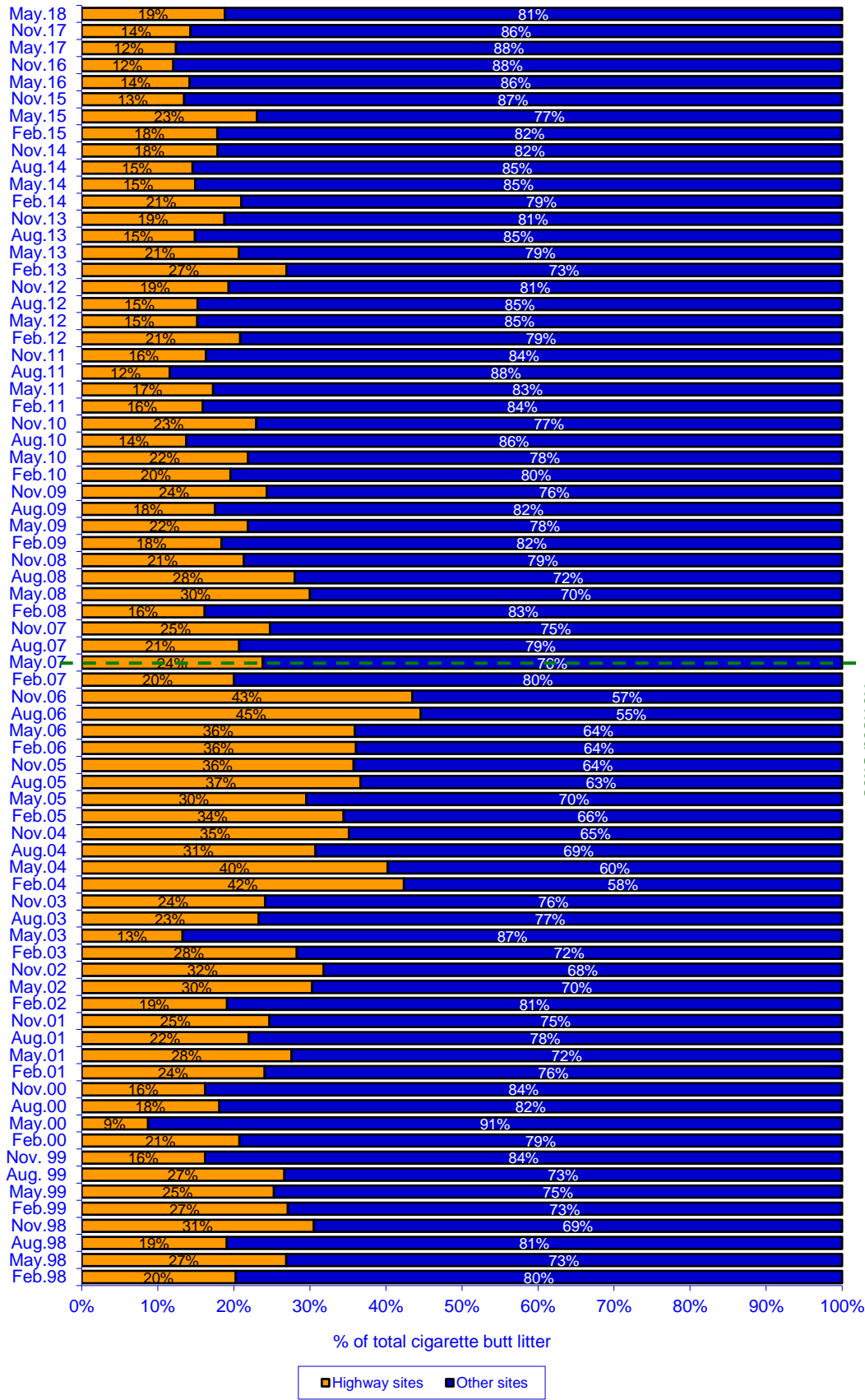
Proportion of Cigarette Related Litter Items in Total Litter Stream

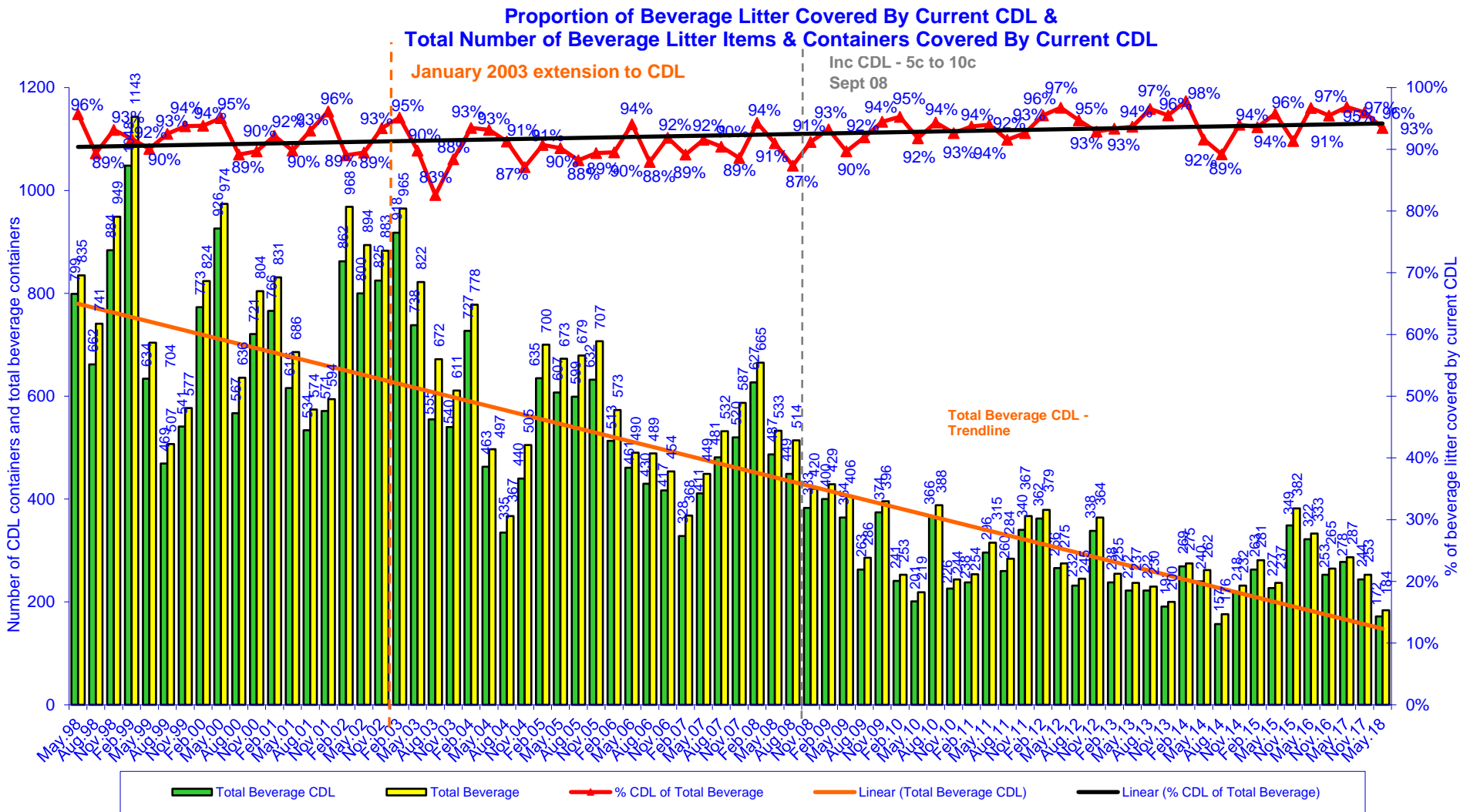


Number of Cigarette Butts by Site Type

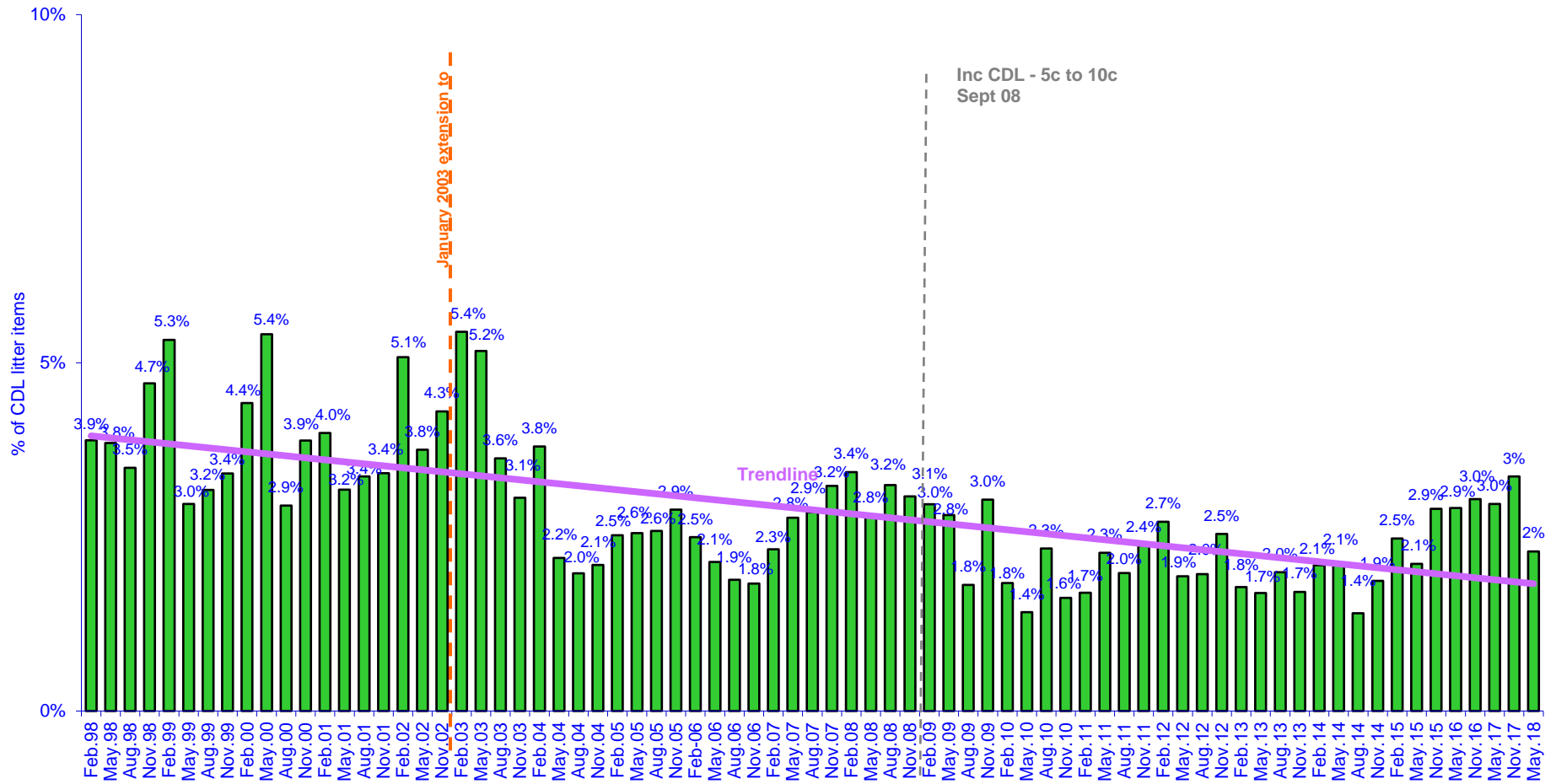


Proportion of Total Cigarette Butt Litter at Highway sites & Other sites

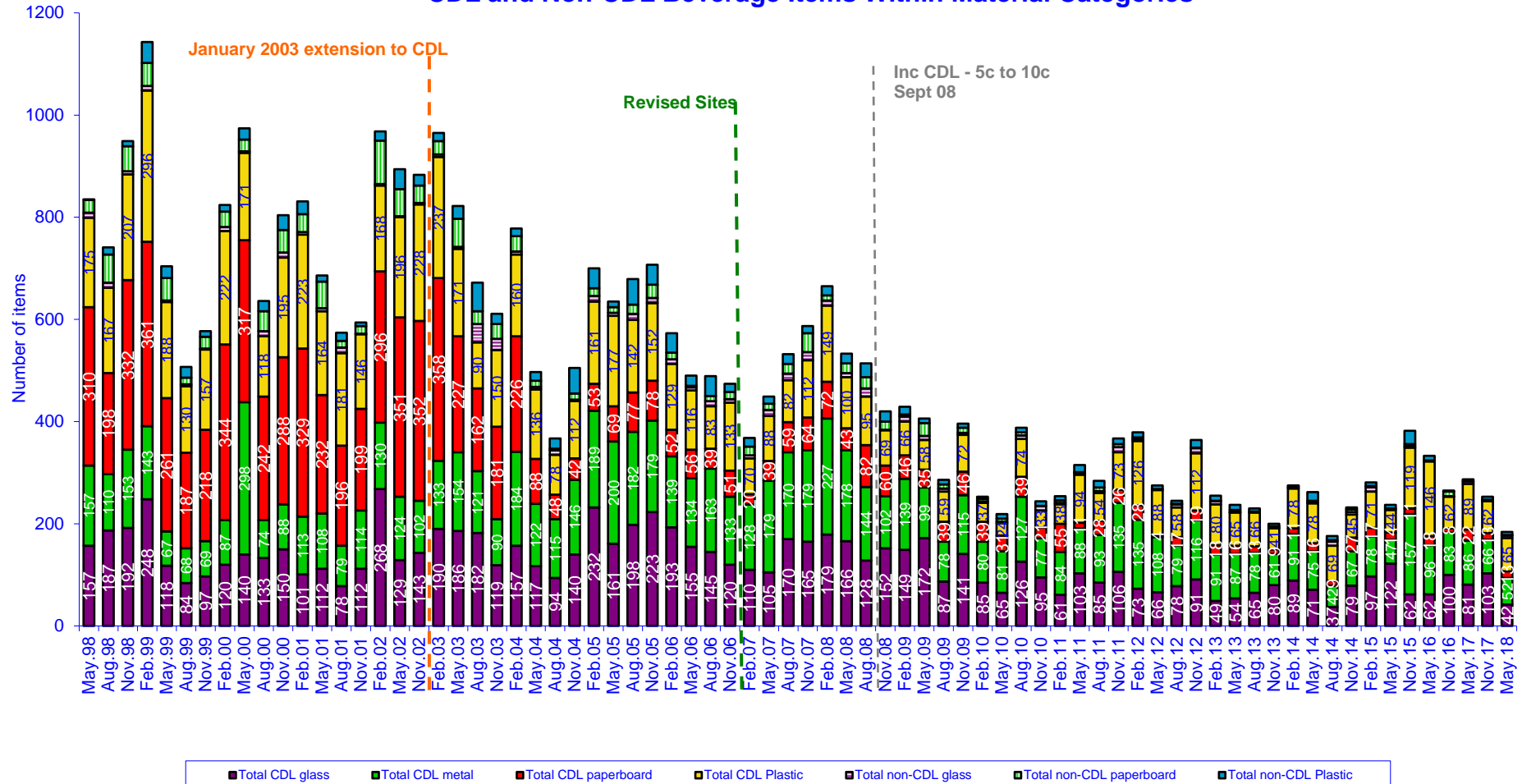




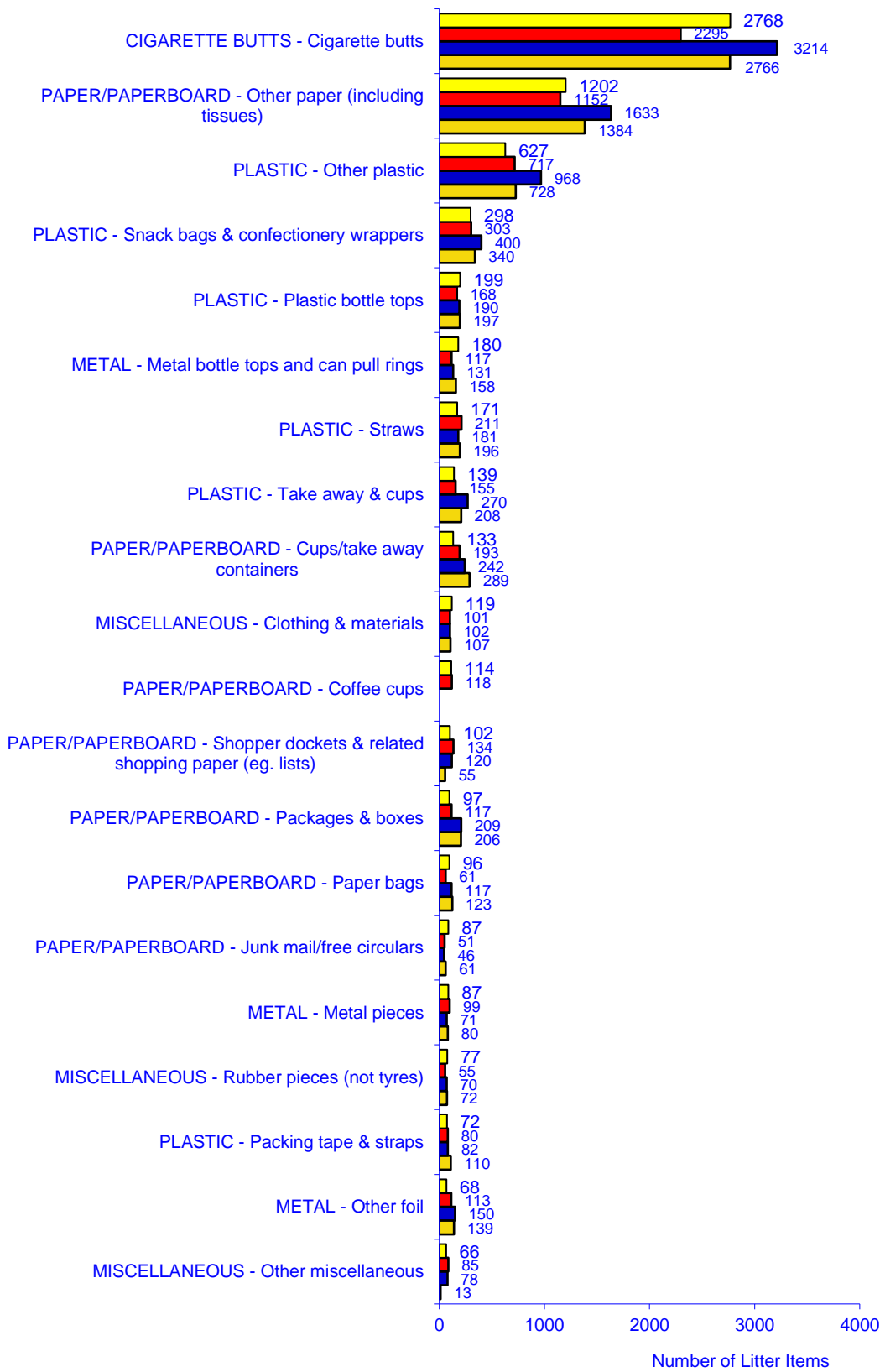
Proportion of Current CDL Litter Items in Total Litter Stream



CDL and Non-CDL Beverage Items Within Material Categories



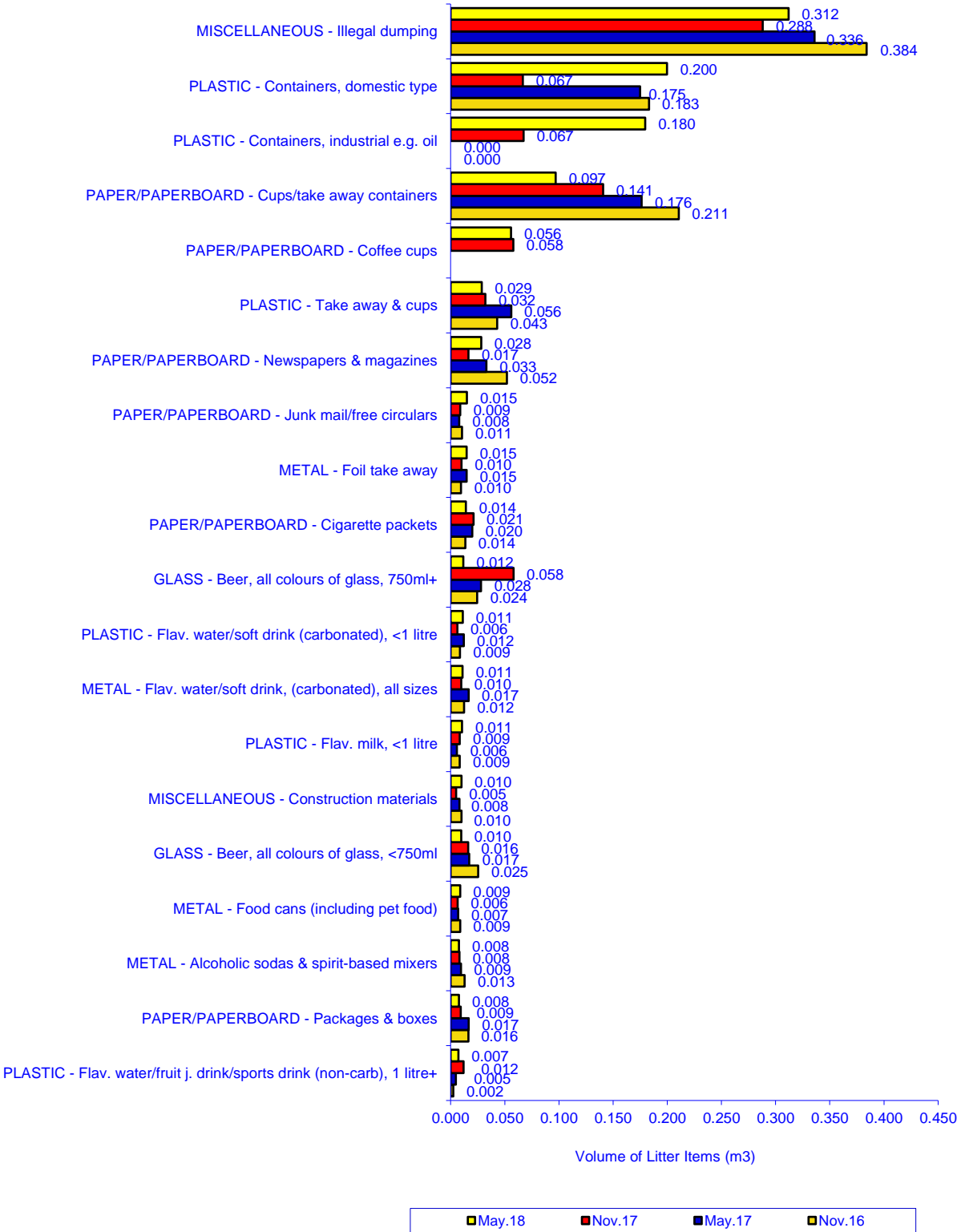
Top 20 Litter Items - Highest Counts



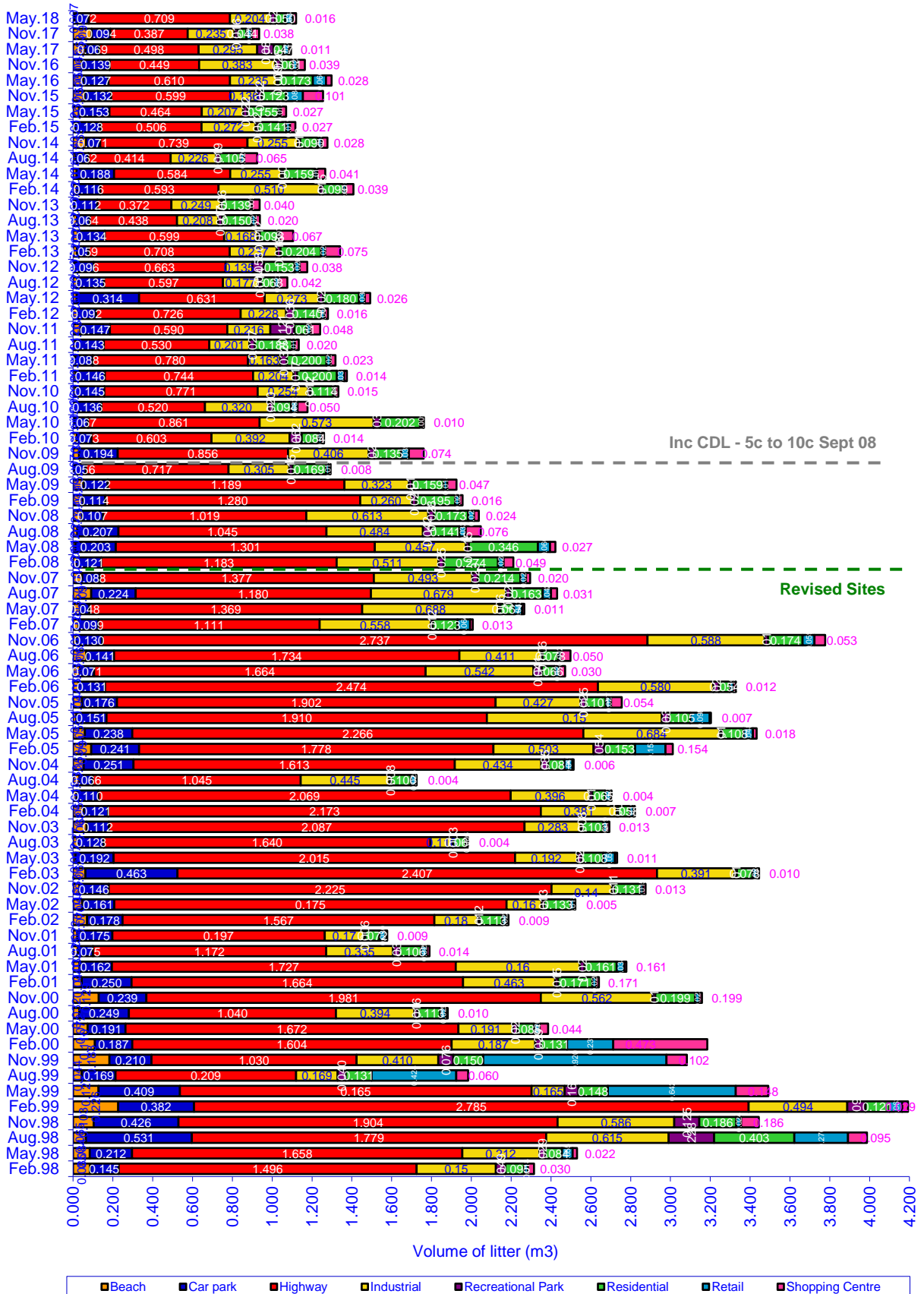
■ May.18 ■ Nov.17 ■ May.17 ■ Nov.16

Unweighted Tracking Graphs - Volume

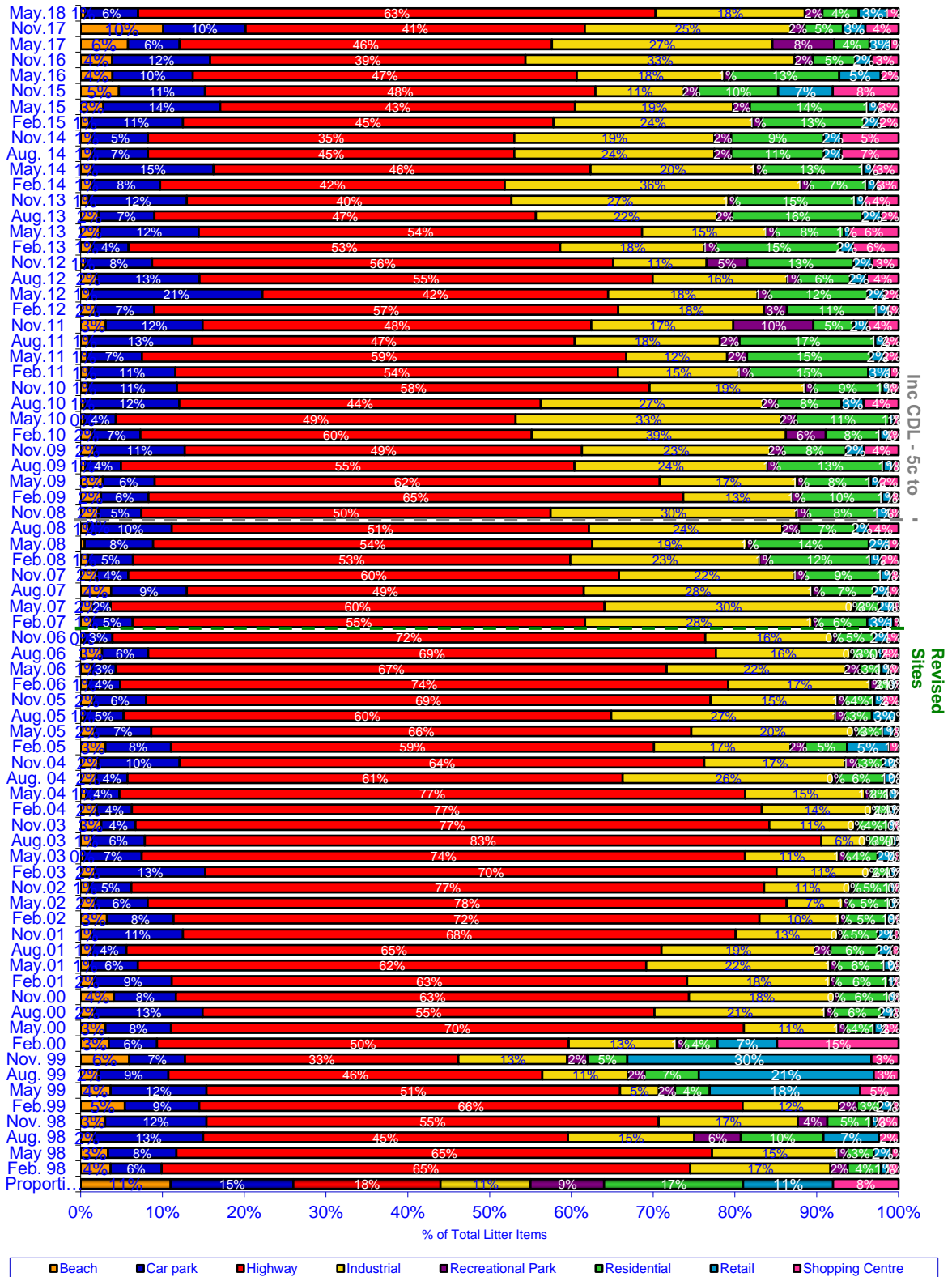
Top 20 Litter Items by Volume



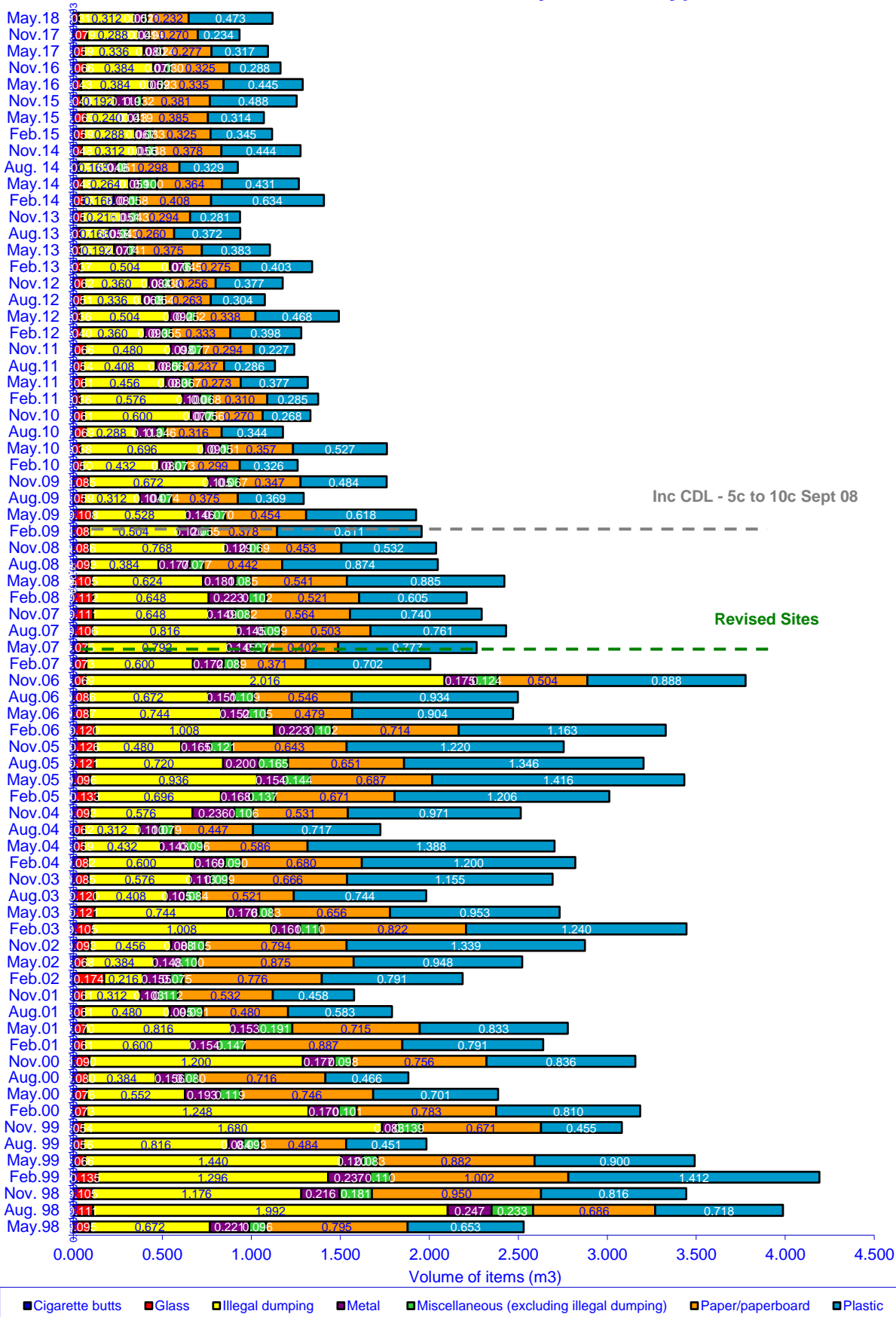
Volume of Litter by Site Type



Proportion of Litter Volume in Total Litter Stream by Site Type

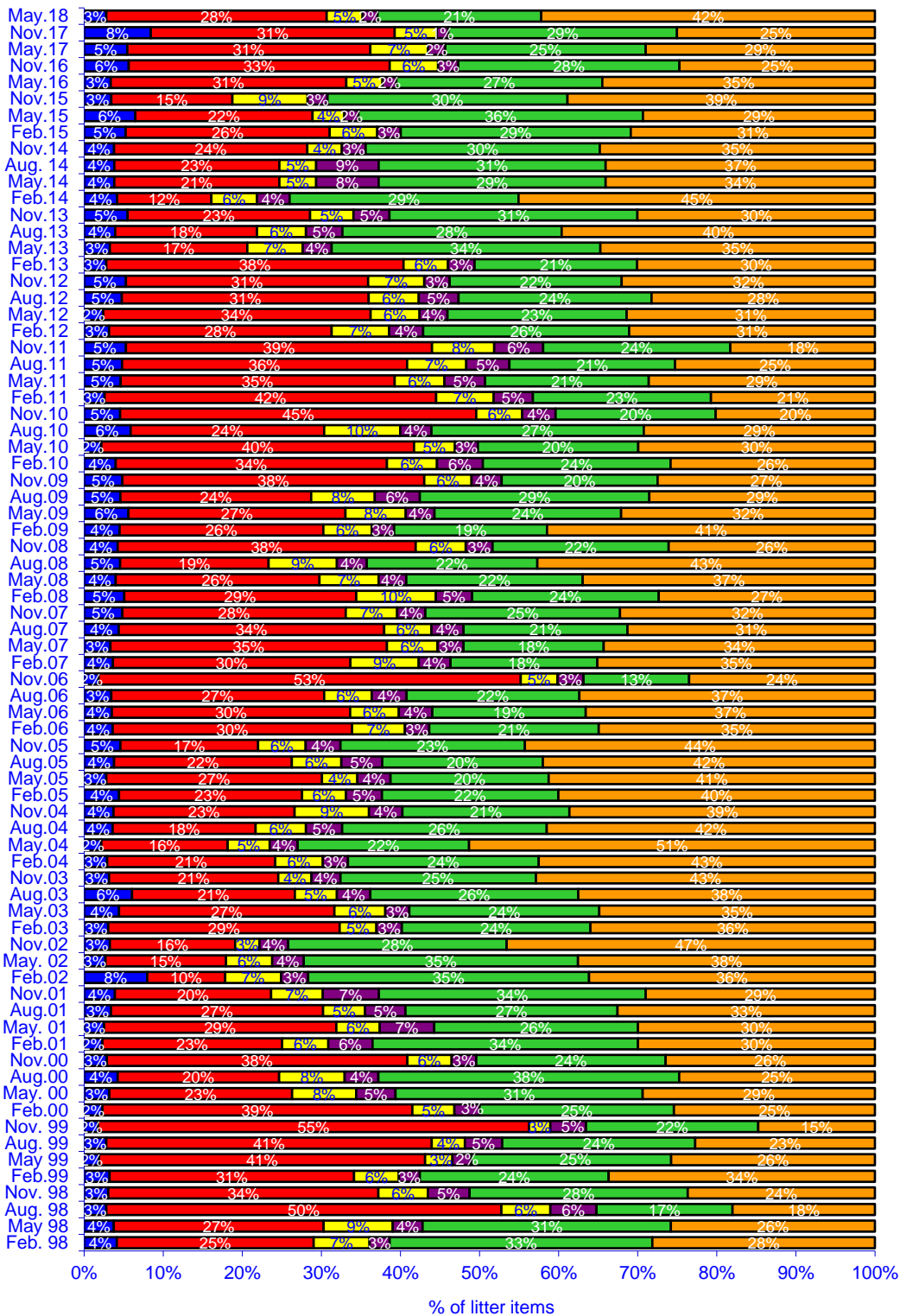


Volume of Litter Items by Material Type



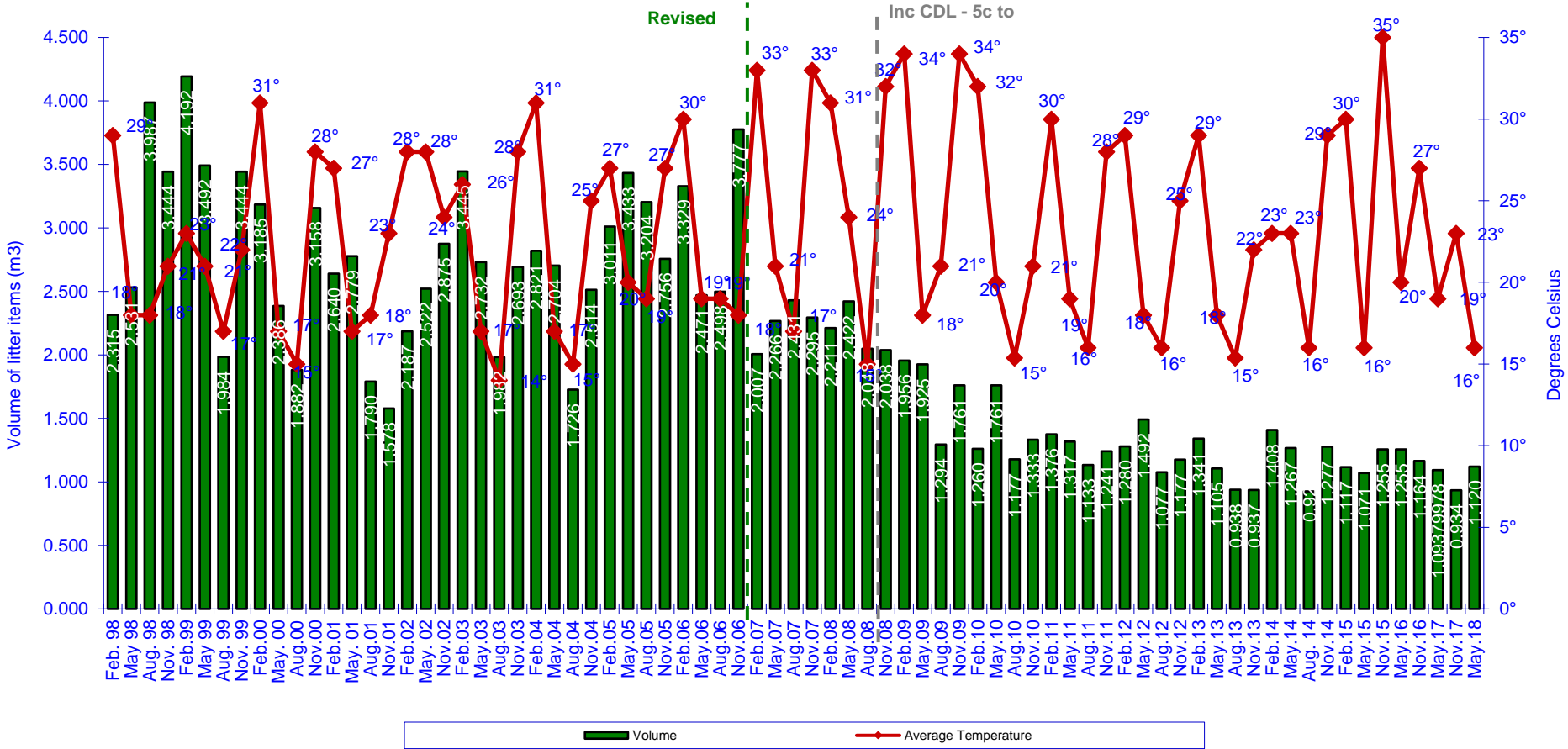
Proportion of Total Litter Volume by Material Type

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

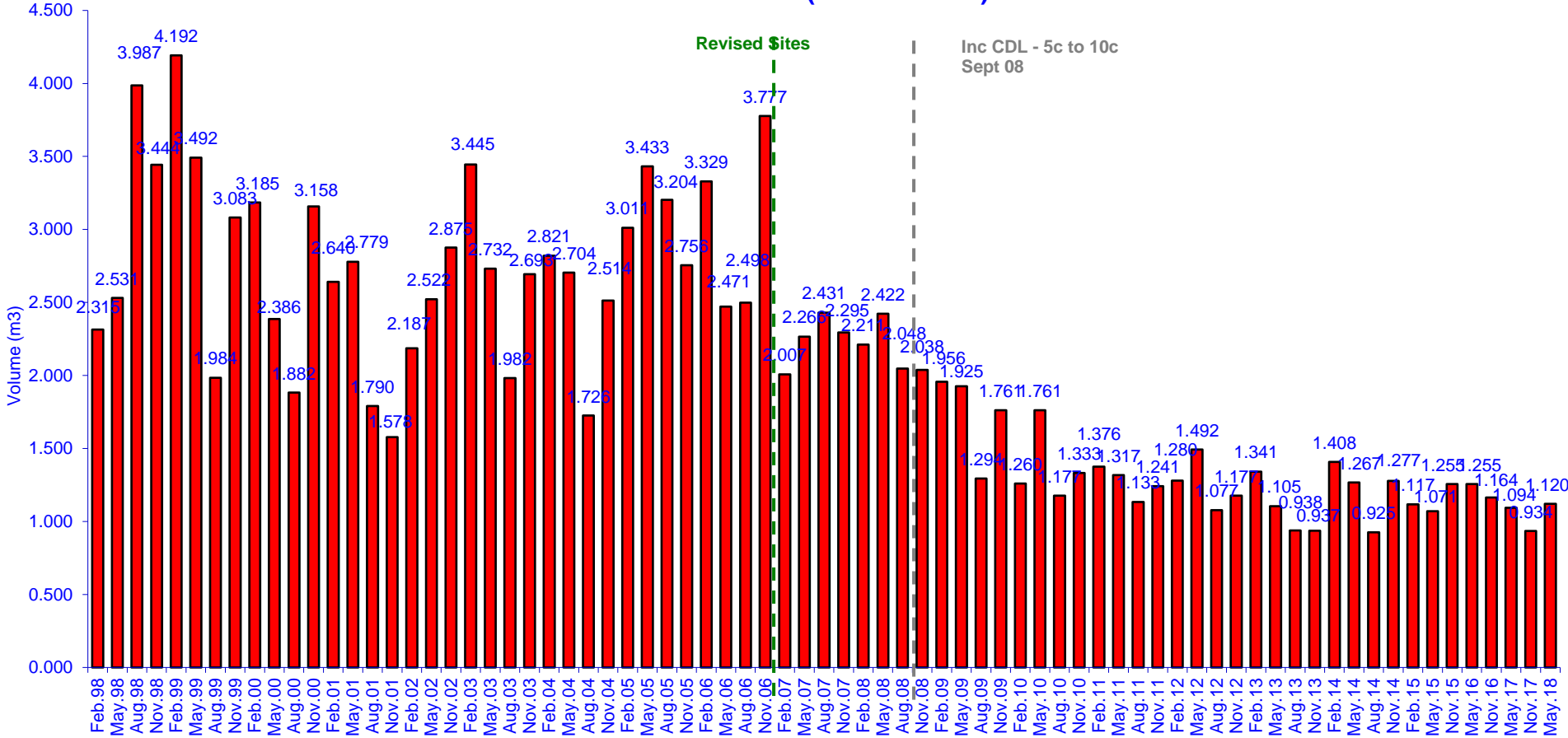


■ Glass ■ Illegal dumping ■ Metal ■ Miscellaneous (excluding illegal dumping) ■ Paper/paperboard ■ Plastic

Weather Temperature and Total Volume of Litter Items

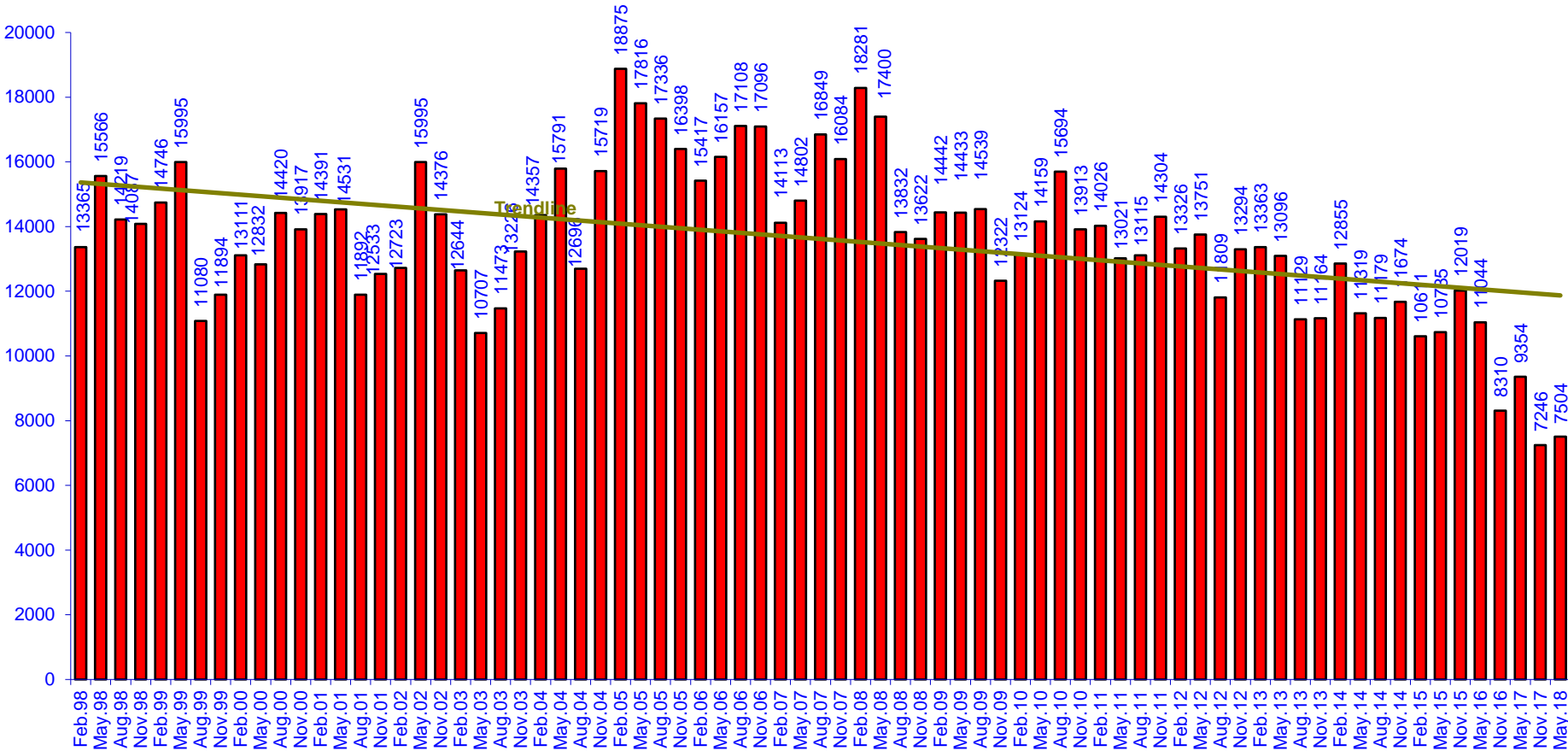


Total Volume (Cubic Metres) of Litter

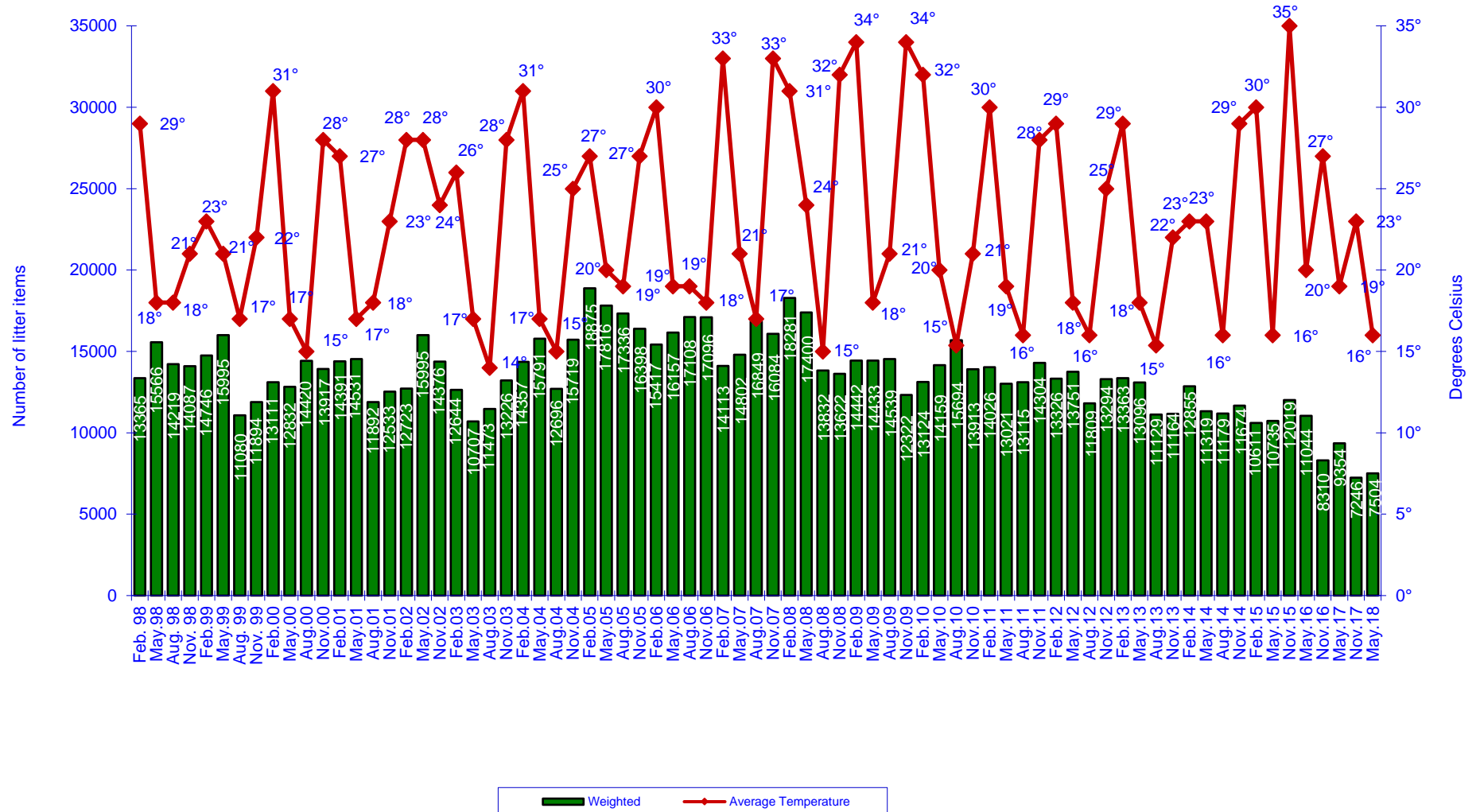


Weighted Tracking Graphs - Items

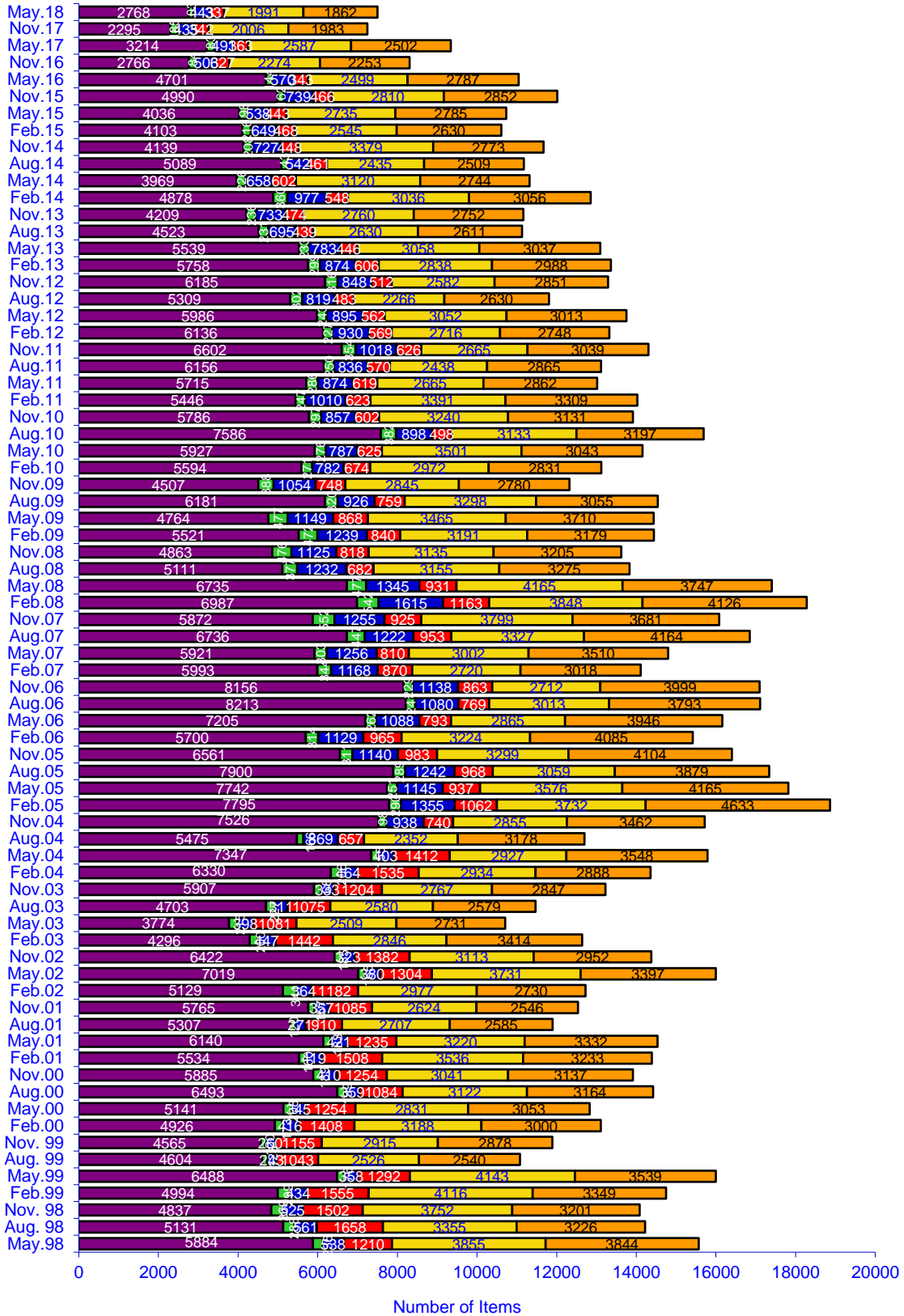
Total Litter - Number of Items - Weighted



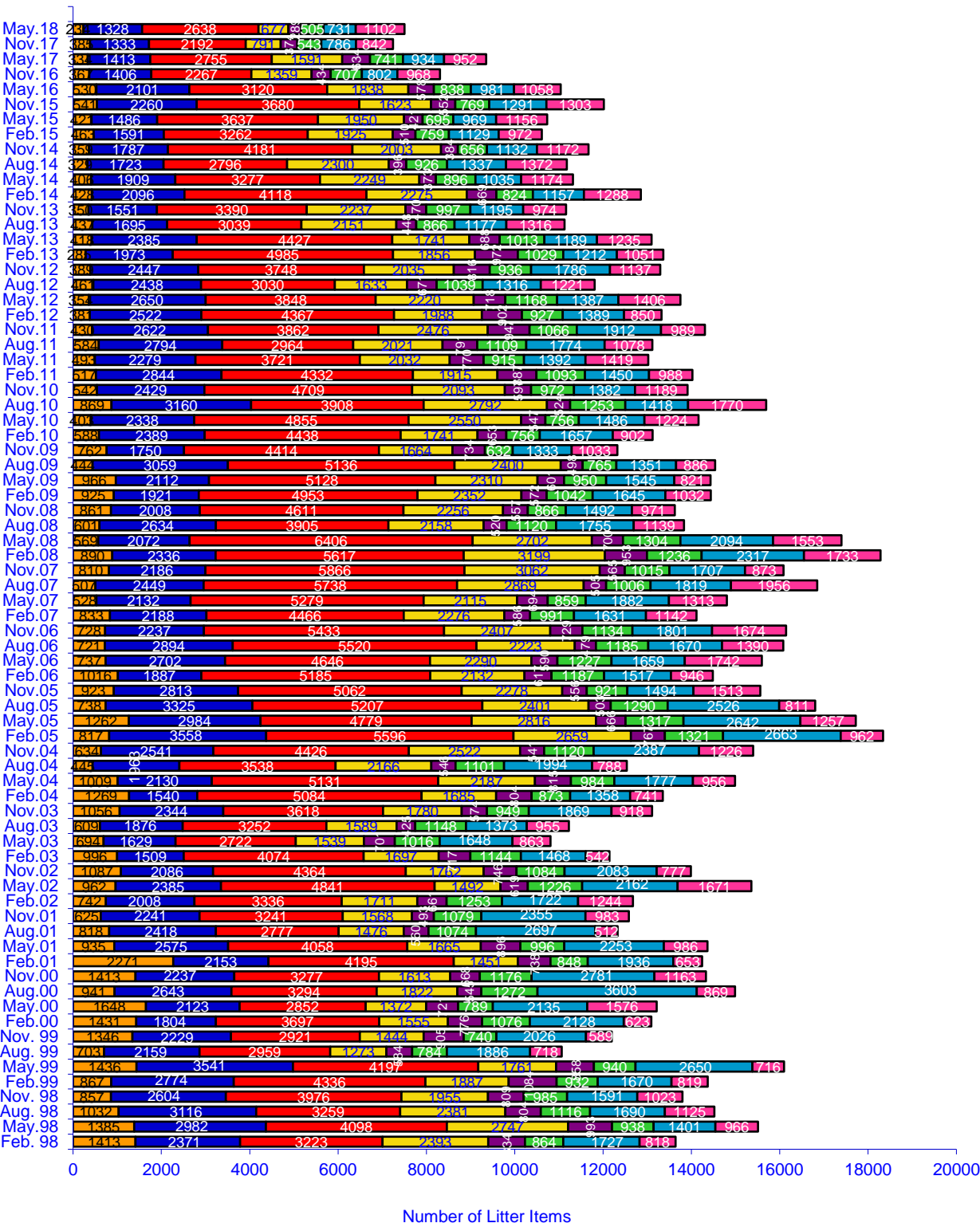
Weather Temperature and Total Number of Litter Items - Weighted



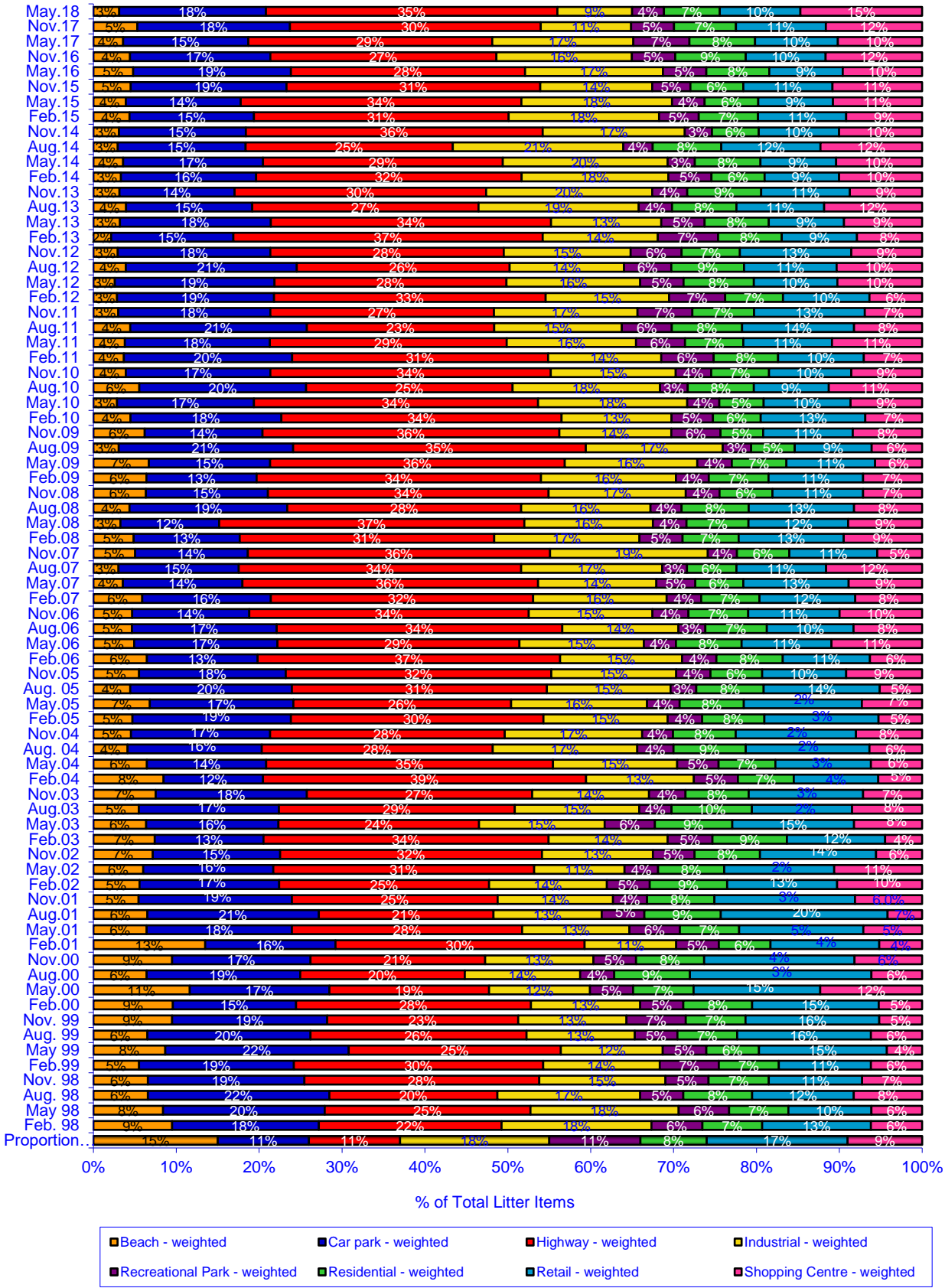
Number of Litter Items by Material Type - Weighted

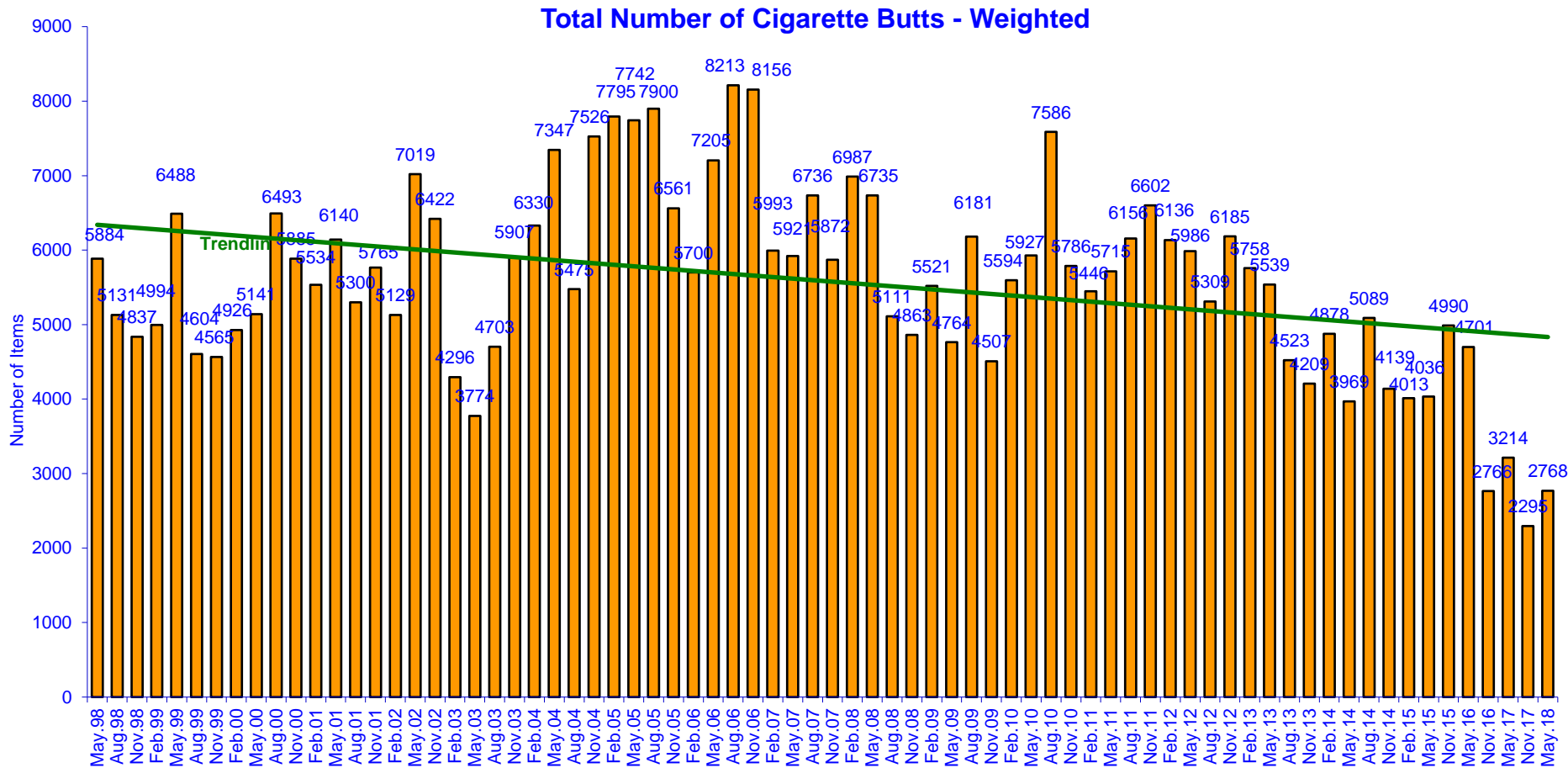


Number of Litter Items by Site Type - Weighted

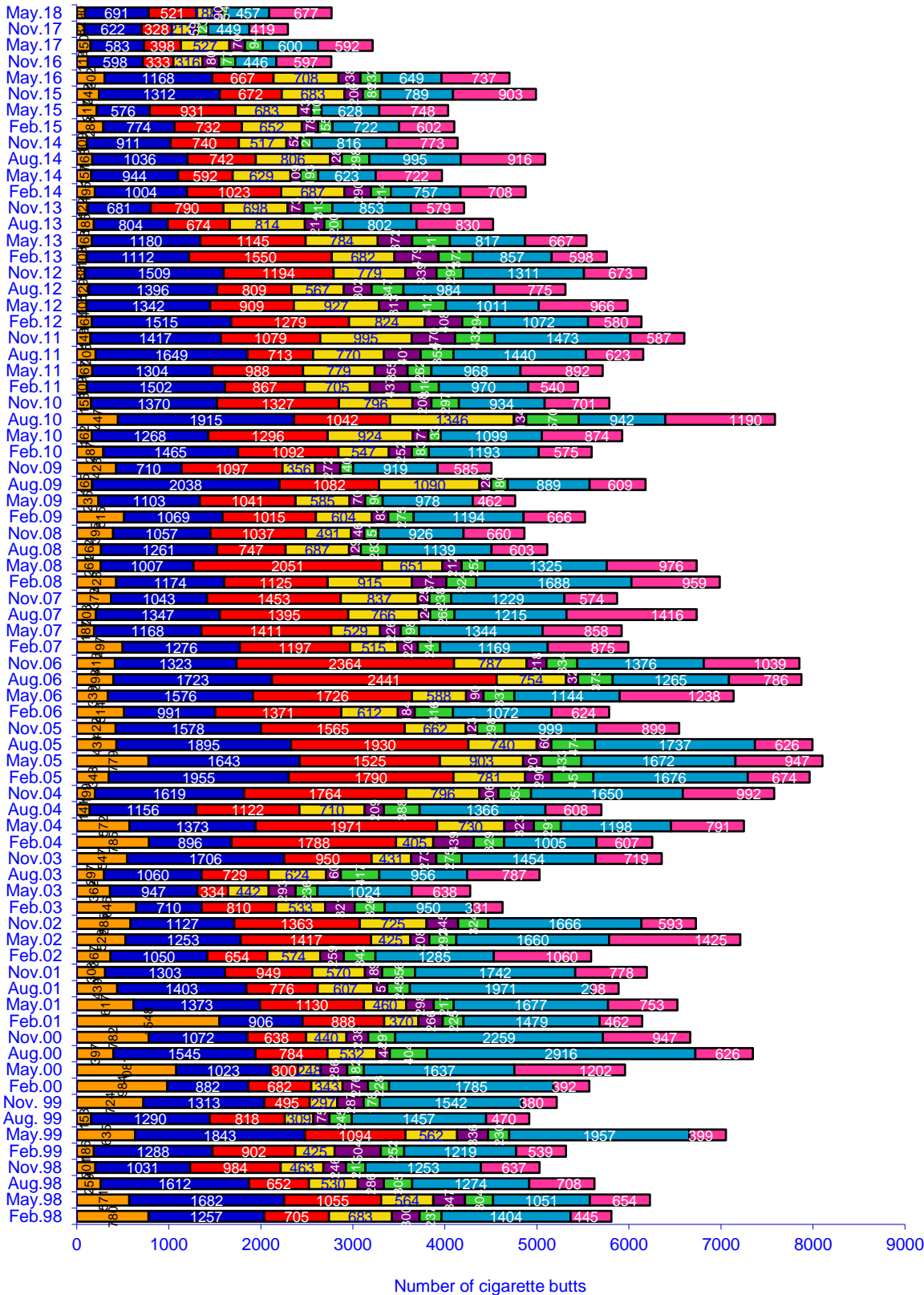


Proportion of Total Litter by Site Type - Weighted

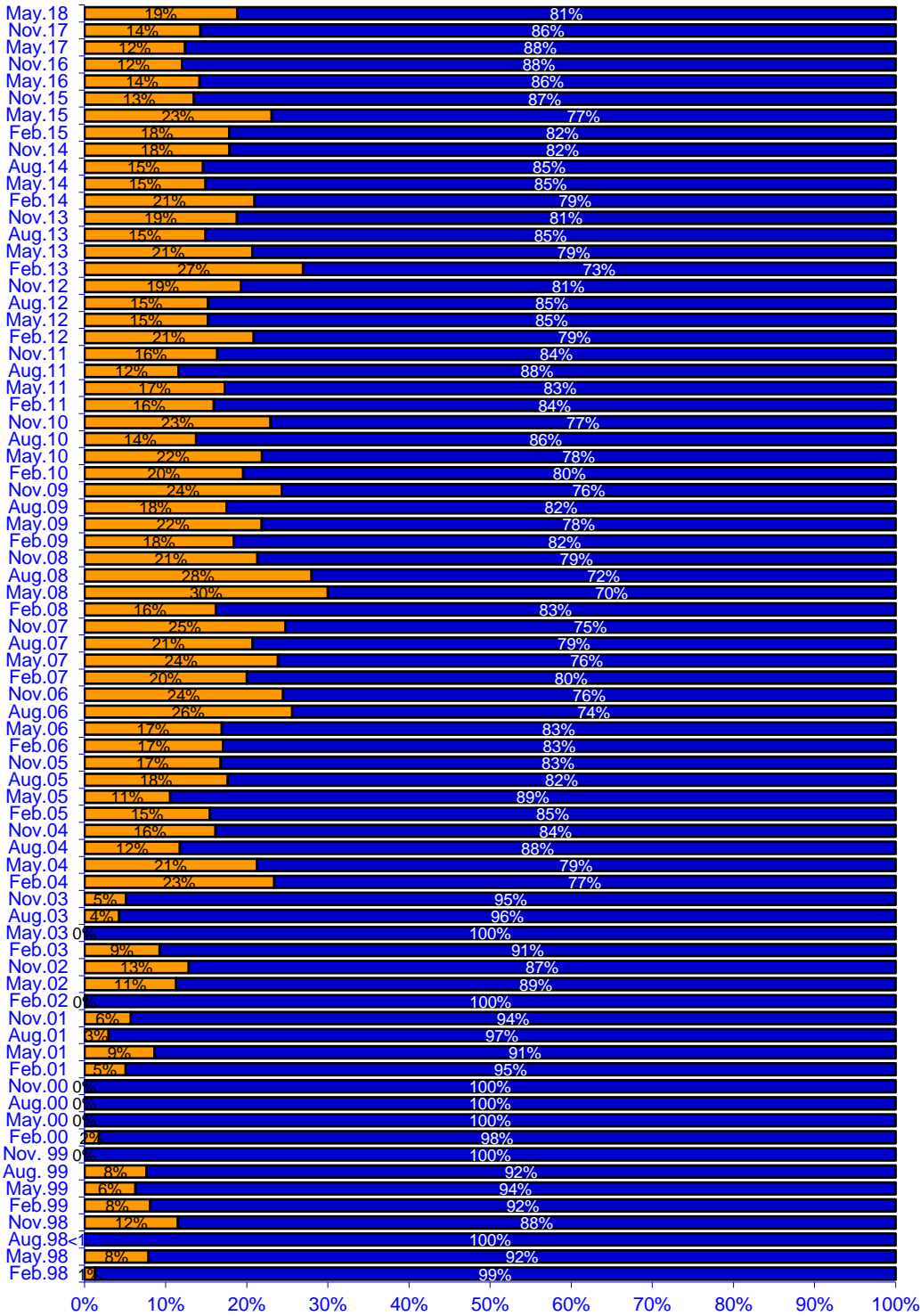




Number of Cigarette Butts by Site Type - Weighted



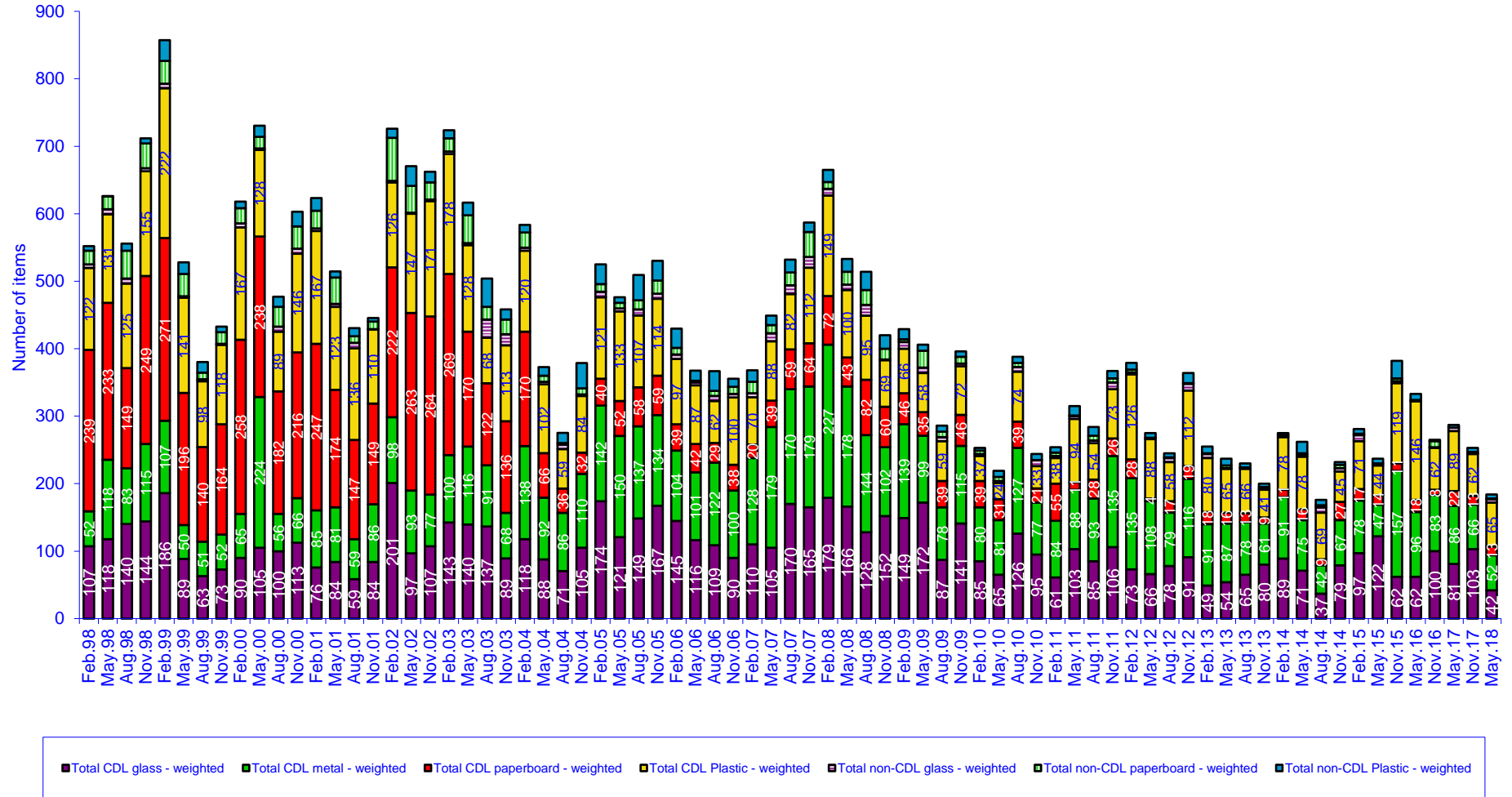
Proportion of Total Cigarette Butt Litter at Highway sites & Other sites - Weighted



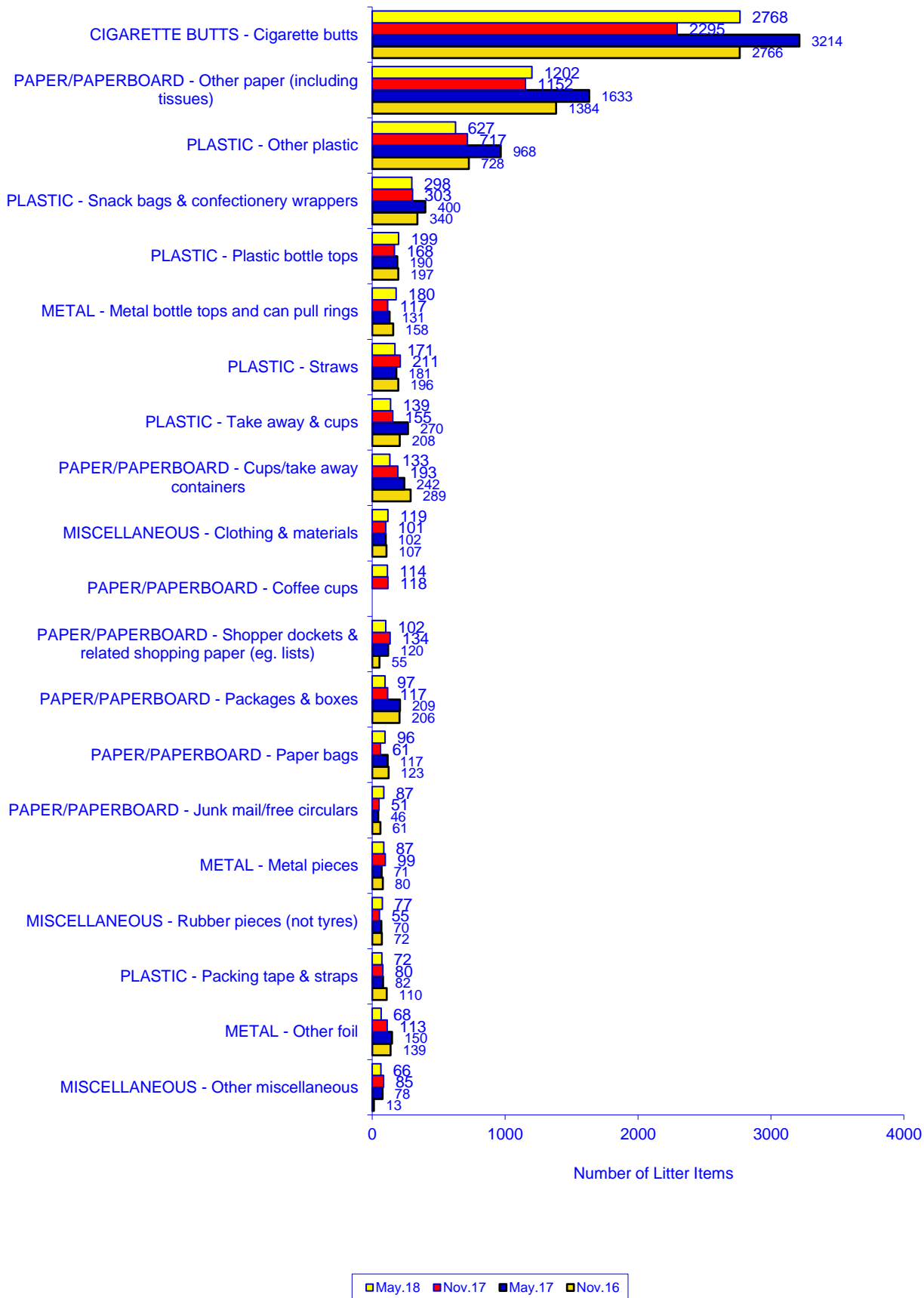
% of total cigarette butt litter



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



Top 20 Litter Items - Highest Counts - Weighted

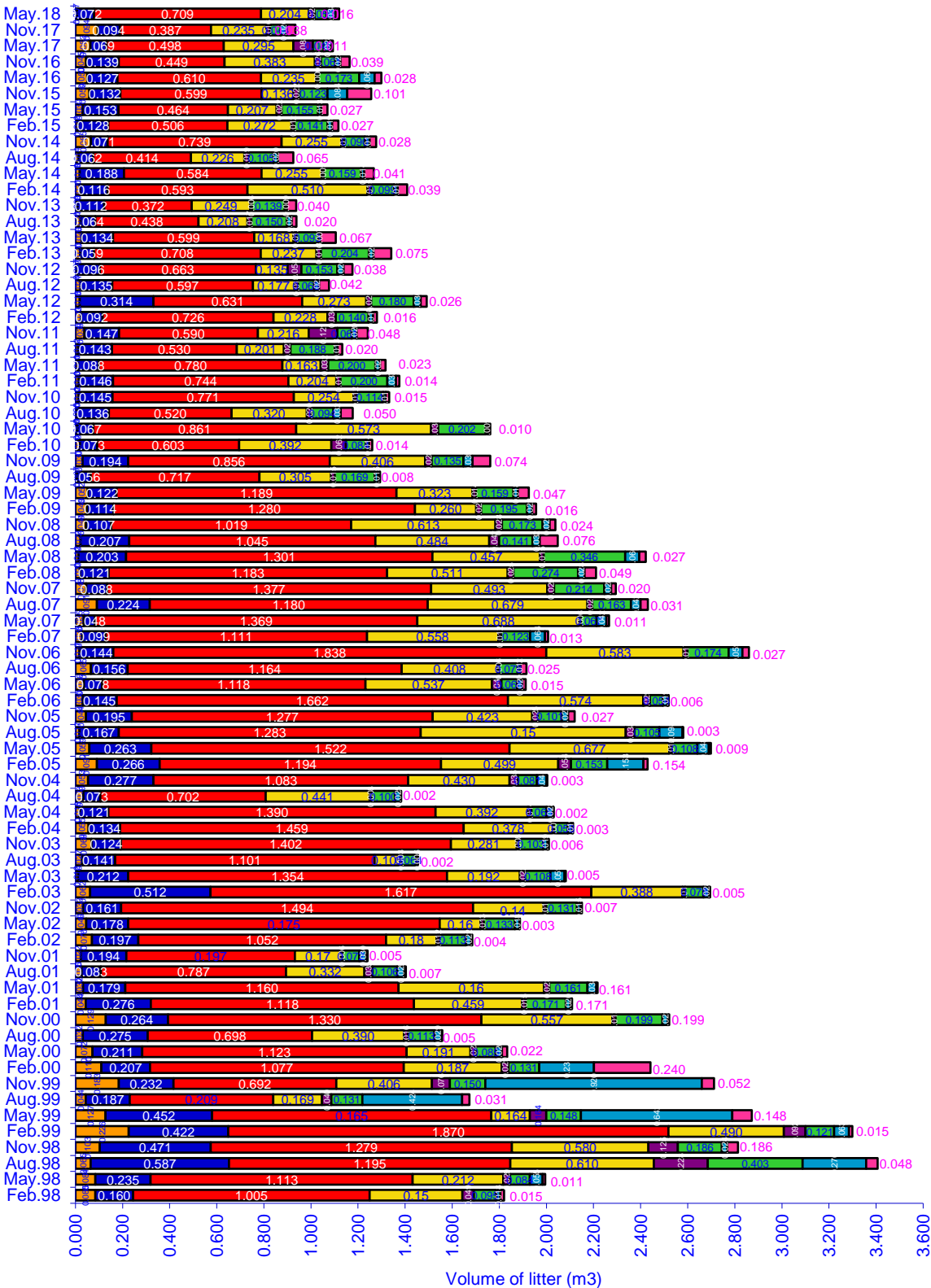


Weighted Tracking Graphs - Volumes

Top 20 Litter Items by Volume - Weighted

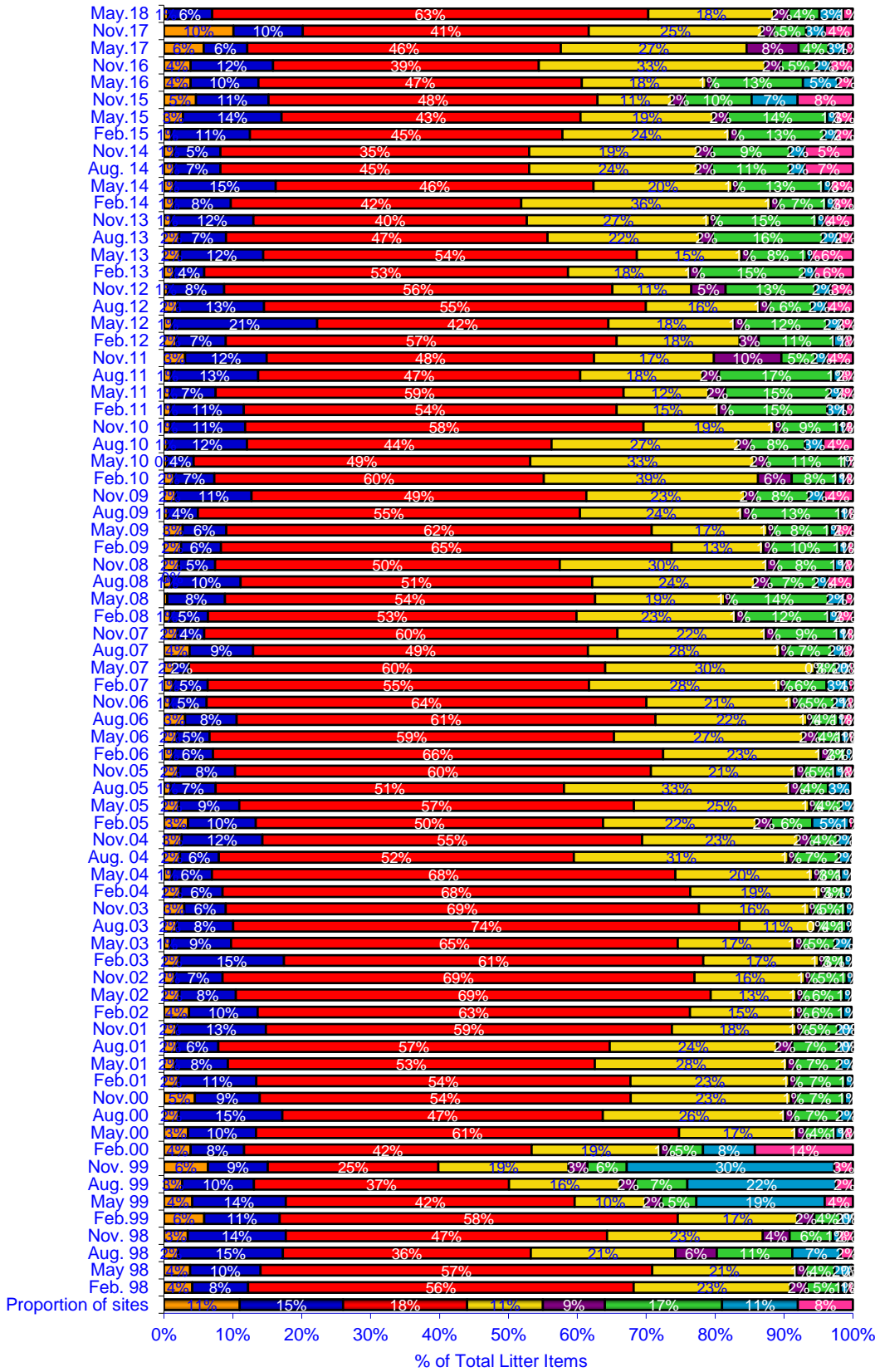


Volume of Litter by Site Type - Weighted



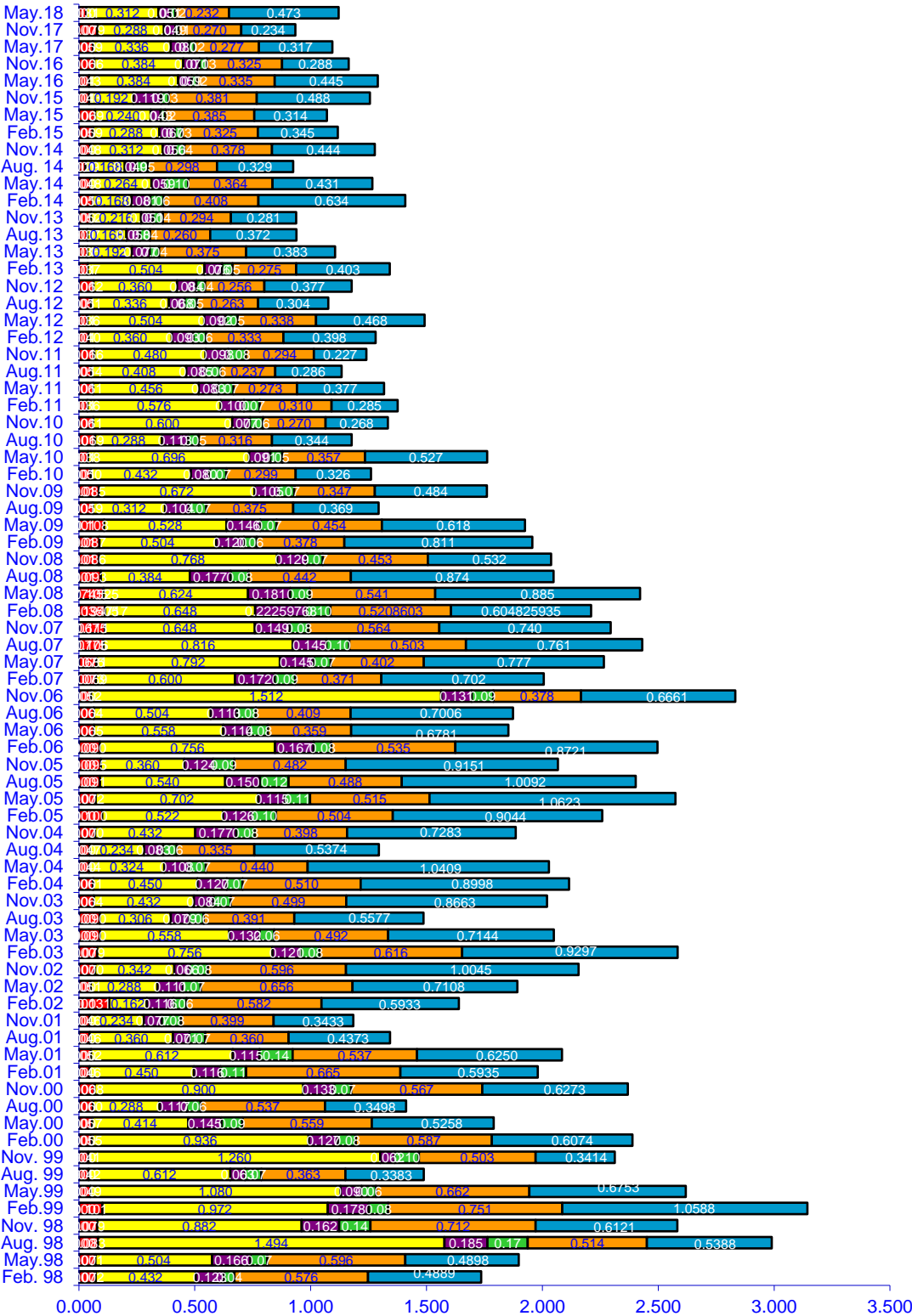
| | | | |
|------------------------------|------------------------|--------------------|----------------------------|
| Beach - weighted | Car park - weighted | Highway - weighted | Industrial - weighted |
| Recreational Park - weighted | Residential - weighted | Retail - weighted | Shopping Centre -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

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

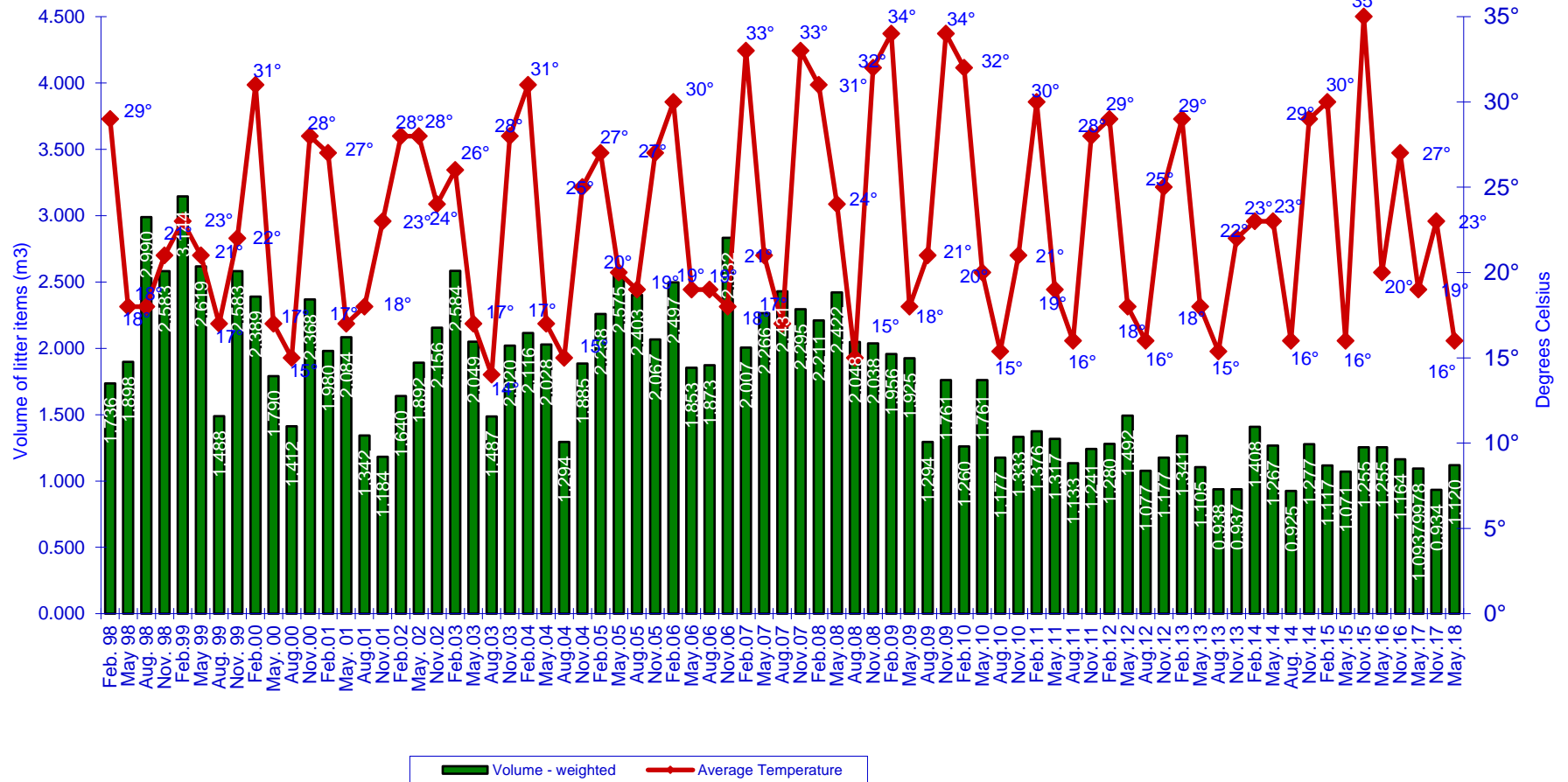


- Beach - weighted
- Car park - weighted
- Highway - weighted
- Industrial - weighted
- Recreational Park - weighted
- Residential - weighted
- Retail - weighted
- Shopping Centre - weighted

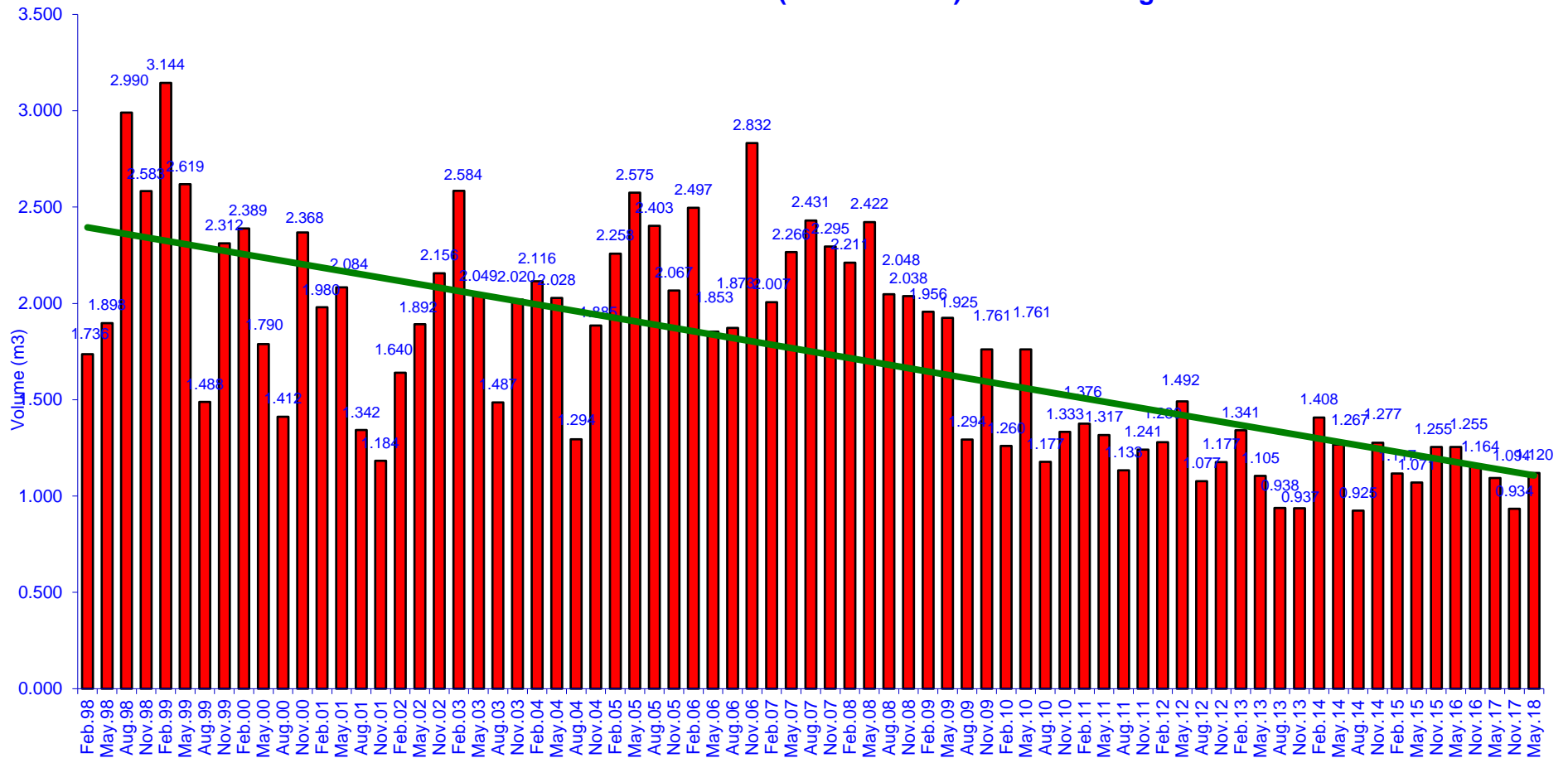
Volume of Litter Items by Material Type - Weighted



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 (2m² to 10m²)

Low (less than 2m²)

High (more than 10m²)

(REF: 10705)

| SITE CODE: | | SITE RESPONSIBLE PERSON: | | | DATE: | | | | | | | | | | |
|--------------|------------------------|---|-----------|--|------------------------|------|-------|-----------|-------|----------------------|--|---------------------------|------|--|--|
| Item Type | | Brand | Work Area | Total | Item Type | | Brand | Work Area | Total | | | | | | |
| GLASS | Ga | Plain water (carbonated or non-carb.), 1 litre+ | NONE | | METAL | | | | | | | | | | |
| | Gb | Plain water (carbonated or non-carb.), <1 litre | NONE | | | | | | | | | | | | |
| | Gc | Flavoured water/soft drink (carbonated) 1 litre+ | NONE | | | | | | | Ma | Beer, aluminium, all types, all sizes | NONE | | | |
| | Gd | Flavoured water/soft drink (carbonated) <1 litre | NONE | | | | | | | Mb | Alcoholic sodas & spirit-based mixers | NONE | | | |
| | Ge | Flav. water / fruit juice drink/ sports drink, (non carb), 1 litre+ | NONE | | | | | | | Mc | Cider/fruit based etc. | NONE | | | |
| | Gf | Flav. water / fruit juice drink/ sports drink, (non carb), <1 litre | NONE | | | | | | | Md | Water, carbonated & flavoured/soft drink | NONE | | | |
| | Gg | Fruit juice, 1 litre or more | NONE | | | | | | | Me | Water, non-carbonated & flavoured, all sizes | NONE | | | |
| | Gh | Fruit juice, < 1 litre | NONE | | | | | | | Mf | Food cans (including pet food) | NONE | | | |
| | Gi | Wine cooler, all sizes | NONE | | | | | | | Mg | Industrial cans - all types | NONE | | | |
| | Gj | Alcoholic sodas / spirit-based mixers, all sizes | NONE | | | | | | | Mh | Aerosols - pressure packs | NONE | | | |
| | Gk | Cider/fruit based etc. | NONE | | | | | | | Mi | Metal bottle tops and can pull rings | NONE | | | |
| | Gl | Wine & spirit, all sizes | NONE | | | | | | | Mj | Metal pieces | NONE | | | |
| | Gm | Beer, 750ml or more, all colours of glass | NONE | | | | | | | Mk | Foil take away | NONE | | | |
| | Gn | Beer, < 750ml, all colours of glass | NONE | | | | | | | Ml | Other foil | NONE | | | |
| | Go | Other glass | NONE | | | | | | | MISCELLANEOUS | Xa | Tyres & pieces | NONE | | |
| | CIGARETTE BUTTS | | | | | | | | | | 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 | | | | | | | | | |
| | | | | 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 | | |
| Ka Packages & boxes | NONE | | | Pf Plain water (carbonated or non-carb), 1 litre+ | NONE | | | | |
| Kb Cigarette packets | NONE | | | Pg Plain water (carbonated or non-carb), <1 litre | NONE | | | | |
| Kc Cartons, milk, plain (white), all sizes | NONE | | | Ph Flav. water/soft drink (carbonated) 1 litre+ | NONE | | | | |
| Kd Cartons, flavoured milk, 1 litre+ | NONE | | | Pi Flav. water/soft drink (carbonated) <1 litre | NONE | | | | |
| Ke Cartons, flavoured milk, <1 litre | NONE | | | Pj Flav. water/fruit juice drinks, sports drinks etc. (non-carb), 1 litre+ | NONE | | | | |
| Kf Cartons, flav. water/fruit juice drink/sports drink, (non-carb), 1 litre+ | NONE | | | Pk Flav. water/fruit juice drinks, sports drinks etc. (non-carb), <1 litre | NONE | | | | |
| Kg Cartons, flav. water/fruit juice drink/sports drink, (non-carb), <1 litre | NONE | | | Pl Containers, industrial e.g. oil | NONE | | | | |
| Kh Cartons, fruit juice, 1 litre+ | NONE | | | Pm Containers, domestic type | NONE | | | | |
| Ki Cartons, fruit juice, <1 litre | NONE | | | Pn Bags – light weight plastic shopping type carry bags | NONE | | | | |
| Kj Newspapers & magazines | NONE | | | Po Bags – heavier glossy typically branded carry bags | NONE | | | | |
| Kk Junk mail / free circulars | NONE | | | Pp Sacks – sheeting – other bags | NONE | | | | |
| Kl Coffee cups | NONE | | | Pq Wine cask bladders | NONE | | | | |
| Kr Other cups/take away containers | NONE | | | Pr Straws | NONE | | | | |
| Km Tickets, e.g. bus, ATM, vending machine etc. | NONE | | | Ps 6 ring can holders | NONE | | | | |
| Kn Ice cream wrappers | NONE | | | Pt Snack bags & confectionery wrappers | NONE | | | | |
| Ko Paper bags | NONE | | | Pu Styrene foam boxes, sheets, etc. | NONE | | | | |
| Kp Shopper docket & related shopping paper (eg, lists) | NONE | | | Pv Packing tape & straps | NONE | | | | |
| Kq Other paper (including tissues) | NONE | | | Pw Take away & cups | NONE | | | | |
| Pa White milk, all sizes | NONE | | | Px Plastic bottle tops | NONE | | | | |
| Pb Flavoured milk, 1 litre+ | NONE | | | Py Bread bag tags | NONE | | | | |
| Pc Flavoured milk, <1 litre | NONE | | | Pz Lollipop sticks | NONE | | | | |
| Pd Fruit juice, 1 litre+ | NONE | | | P1 Spoons/cutlery | NONE | | | | |
| Pe Fruit juice, <1 litre | NONE | | | P2 Drink pouches | NONE | | | | |
| | NONE | | | P3 Other plastic | NONE | | | | |