Packaging Impacts Consultation RIS30
March 2012
For COAG Standing Council on Environment & Water

Submission by Clean Up Australia Limited
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INTRODUCTION

Clean Up Australia has consistently been an active public supporter of the introduction of a national container deposit refund scheme.

This position reflects the attitude of the community we represent – the millions of volunteers who have annually taken to their streets, beaches, waterways, parks and bushland to remove rubbish left by fellow Australians.

Clean Up knows that the community supports the introduction of an incentive based refund scheme.

The most recent research undertaken was an omnibus [1] revealing:

- 88% of respondents supported that a ten cent deposit and refund scheme would encourage more people to recycle bottles and cans
- Only 7% disagreed and 6% were unsure.

We thank COAG for the opportunity to share recent findings of the impact of packaging in the environment as reported by Clean Up Australia Day volunteers.

These clearly demonstrate the nature and extent of the problem.

RESULTS FROM CLEAN UP AUSTRALIA DAY 2011[2]

The 2011 Rubbish Report was a snapshot of 35% [2,639] of the 7,479 registered sites for that year., End of Clean Up and Rubbish reports or were analysed. A total of 253,677 rubbish items were surveyed from which content from a total of 6,753 bags, representing 18% of rubbish at survey sites was counted.

KEY FINDINGS

- Excluding cigarette butts, plastic was the most common item, representing 32% of all rubbish items removed.
- This is the 17th year that plastic dominated 'Major Sources of Rubbish'
- Chips/confectionery bags, bottle caps and lids and PET drink bottles were the top three plastic items found
- Six out of the top ten items were recyclable, while seven of the top ten items related to packaging in some way
- Miscellaneous items were the second most common source of rubbish representing 22% of total rubbish reported. Cigarette butts fall into the miscellaneous category, influencing the placement of this category as a major source of rubbish.
- Metal and glass jointly hold third spot for most common source of rubbish with 14% each.
- Both metal and glass have increased by 2% and 4% respectively from 2010 figures as a proportion of total rubbish.
- Wood and rubber made up the two smallest sources of rubbish in 2011 making up just 2% of the total.

[1] Essential Research Omnibus January 2009

[2] Clean Up Australia Rubbish Report 2011

TOP TEN RUBBISH ITEMS

1. Cigarette butts
2. Glass beverage bottles (alcohol and soft drink)
3. Plastic bottles/PET drink bottles
4. Aluminium cans (alcohol and soft drink)
5. Plastic bags
6. Plastic chips and confectionary bags
7. Plastic bottle caps
8. Metal bottle caps
9. Small paper pieces
10. Metal/ foil confectionary wrappers

- Cigarette butts continue to be a major problem and have held the shameful number one spot for 16 years
- While Cigarette butts were the single item most commonly found, by mass plastics are undoubtedly the most common items
- Five of the top ten items were related to beverage containers including plastic and metal bottle caps. They also comprise 49% of total waste items in the top ten
- Six out of the top ten items were recyclable, while seven of the top ten items related to packaging in some way
- Alcohol is shown to be a large contributor to glass bottle rubbish waste with more than three times the amount of glass bottles found being alcohol related rather than soft drink and 14 times more than juice bottles
- In 2011 polystyrene and glass pieces dropped off the top ten and some new items - plastic bags and metal/foil confectionary wrappers rejoined the list
- Items on the rise in 2011 include:
  - Aluminium cans jumped from ninth to fourth place. When broken down into types it was evenly split between alcohol and soft drink
  - Glass bottles which did not even appear in top ten in 2010 now feature at number two
  - Metal bottle caps moved from tenth to eighth spot in 2011.
- Items moving down the list include:
  - Small paper pieces has dropped considerably from second to ninth place in 2011
  - Noticeably polystyrene no longer features in the top ten items having ranked number three in 2010.

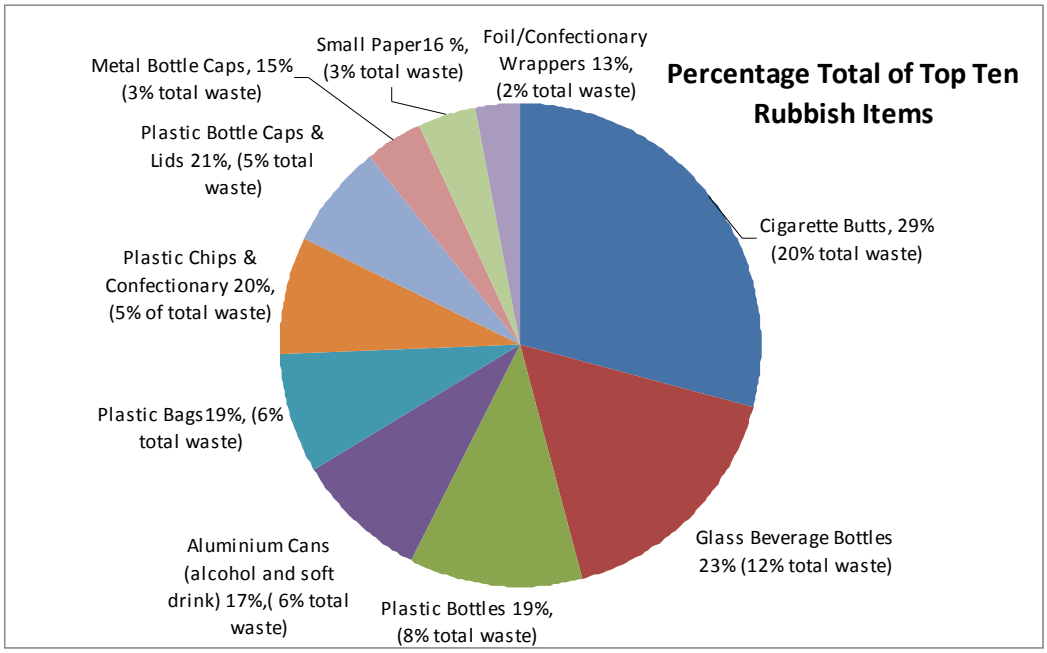


Figure 1

The pie chart above shows the top ten rubbish items, displayed here as a percentage of each other. The data labels also show what percentage of total waste each top ten item represents.

- Of all the waste removed in 2011, 67% was one of top ten items.
- Cigarette butts were the most commonly found item for the seventeenth year in a row representing one in five waste items reported
- Food and beverage packaging is the dominant source of waste in the Top Ten in 2011
- Glass and aluminium cans also make notable appearances in the list
- Alcohol containers overwhelming dominate glass waste
- Seven of the top ten waste items found were packaging materials, making up 59% of the Top Ten waste items removed and 40% of the total waste.

MAJOR SOURCES OF RUBBISH

Figure 2 shows the types of rubbish surveyed along with their proportion of the total rubbish.

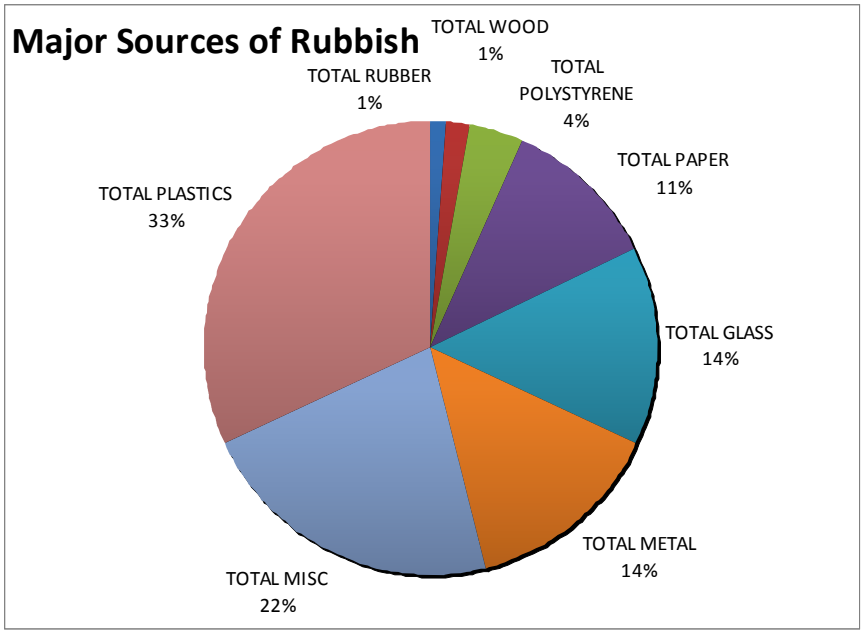


Figure 2

IN SUMMARY

PLASTIC
Over the entire 21 years of Clean Up Australia Day, plastics have remained the dominant waste item found. This year, plastics made up 32% of all rubbish found.

MISCELLANOUS
Miscellaneous items were the second largest source of rubbish in 2011 next to plastics, consistent with 2010 results. Cigarette butts were overwhelmingly the largest miscellaneous waste item found, constituting 92% of all miscellaneous items. Other miscellaneous items of significance included clothing, food scraps, ceramics, car parts and batteries.

METAL AND ALUMUNIUM
Metals were the third largest category reported in 2011, representing 14% of all waste items found. Aluminium cans were the largest item found at 43%.

GLASS
Glass waste accounts for 14% of all items removed in 2011. Alcohol bottles were the dominant form of glass, making up 60% of the total. Soft drink bottles and glass pieces were also significant, accounting for 18% and 15% respectively of all glass waste

PAPER AND CARDBOARD
Paper represents 11% of all waste removed. The most significant identifiable items in the paper category were small paper pieces (24%), food packaging (14%), cigarette packets (11%) and napkins and tissues (8%).

EXPANDED POLYSTYRENE
Expanded polystyrene represented 4% of all waste items reported. Of the total polystyrene items fast food containers took out the top spot with 34% followed by polystyrene pieces with 32% and cups and plates at 19%.

WOOD

Wood was the second smallest category of waste removed making up just over 1% of all waste items removed. Interestingly ice cream sticks made up just under half of all wood items at 48% followed by construction materials at 27%

RUBBER

In 2011 rubber was the smallest category of waste at just over 1% which was consistent with 2010 results. The most significant rubber item found was rubber gloves, which accounted for 45% of all rubber items removed followed by thongs (25%) and tyres (22%).

HISTORICAL COMPARISON

Figure 3 shows the historical change in the percentage of each waste type found.
Beginning in 1991, the graph demonstrates the composition of waste found across Australia.

Year	Plastics	Foam/ Polystyrene	Glass	Rubber	Paper	Metals	Wood	Misc.
1991	35.0	8.6	14.4	1.5	13.6	14.3	2.8	9.6
1992	26.8	9.5	17.1	1.2	24.9	11.9	3.7	4.8
1993	40.8	7.7	13.3	1.0	18.9	13.9	1.7	2.8
1994	41.4	6.3	13.0	0.7	21.6	12.3	2.0	2.6
1995	31.2	4.0	10.3	0.7	24.9	18.1	3.0	7.8
1996	33.4	8.7	10.1	1.3	19.9	13.6	1.8	11.2
1997	27.0	7.5	14.7	1.0	18.3	17.9	2.3	11.2
1998	29.1	6.6	13.4	1.2	19.5	14.5	2.4	13.3
1999	36.0	6.8	12.3	1.4	15.0	13.6	1.9	13.0
2000	32.1	4.9	10.1	1.2	15.2	19.1	2.5	14.9
2001	33.7	4.8	12.1	1.2	13.8	15.2	2.0	17.2
2002	33.4	6.9	11.8	1.2	14.1	14.1	2.3	16.2
2003	36.0	3.5	11.8	1.3	17.7	15.2	1.7	12.7
2004	37.3	4.8	11.8	1.0	12.7	13.5	1.9	17.0
2005	32.0	5.0	14.0	1.0	15.0	12.0	2.0	19.0
2006	33.7	5.2	11.7	1.8	15.9	13.2	2.1	16.4
2007	33.1	4.4	15.5	2.3	15.1	13.4	1.8	14.4
2008	31.7	4.8	13.1	1.7	12.6	14.6	3.8	17.7
2009	28.5	3.5	16.4	1.4	12.7	17.5	2.2	17.8
2010	31.3	7.7	10.5	1.1	14.7	12.4	1.1	21.2
2011	32.0	3.9	14.0	1.2	11.3	14.2	1.5	22.0
YOY +/- %	2%	-49%	33%	11%	-23%	14%	33%	4%
5 Year Rolling Average	31.3	4.9	13.9	1.5	13.3	14.4	2.1	18.6
Vs Rolling Average	2%	-19%	1%	-20%	-15%	-2%	-30%	18%

Figure 3

TRENDS

Rolling averages [the last two lines of the table] over the last five years since 1997 give a more accurate reflection of trends over time.

The most significant change has occurred within the category of wood reducing 30% over the last five years.

Other significant reductions included rubber at 20% closely followed by polystyrene at 19% and paper at 15%.

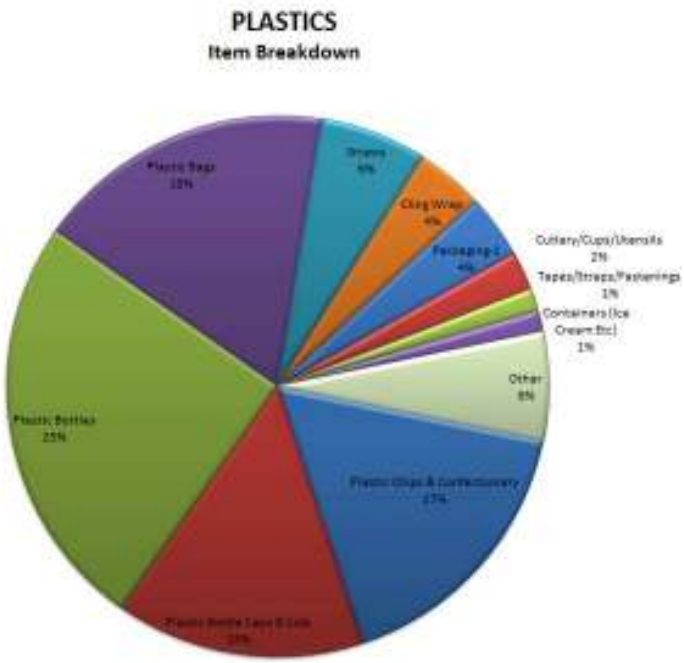
Minor changes can be noted in the metal/aluminium category reducing slightly by 2%.

The most significant increase occurred in the miscellaneous category increasing 18% over the last five years.

Plastics and glass were the only other categories to increase slightly by 2% and 1% respectively.

MAJOR SOURCES OF RUBBISH – ANALYSIS OF EACH CATEGORY

PLASTIC



Plastic was the dominant waste type reported on Clean Up Australia Day in 2011 at 32% with 81,068 plastic items surveyed across all states.

A total of 30 different forms of plastic waste are categorised in the rubbish survey, but only the Top Ten items found are included in the graph above.

Individually 'Confectionary and Chip Packets' ranked first with 17% or almost one in six plastic waste items found. Bottle caps and lids followed (15%) and third was plastic bottles/PET (14%).

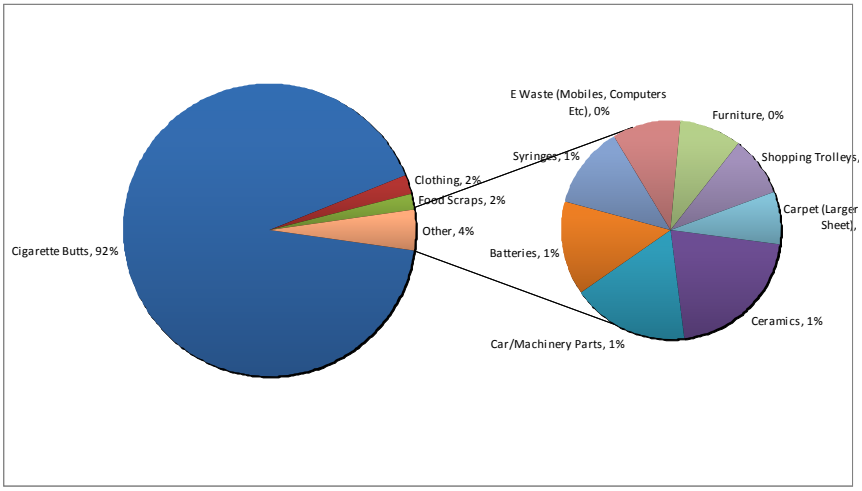
By combining 'bottle caps and lids' with 'PET drink containers' and 'fruit juice bottles' we can see that drink containers are the dominant form of plastic waste (34%).

Packaging, in particular food packaging makes up six of the top ten or 61% of the total plastic items found (cling wrap, fruit juice, straws, bottles, caps and lids, confectionary and chip packets, PET drink containers).

Finally, miscellaneous or 'Other Plastic' items made up 6%, with major components of this category including 'six pack ring, plastic rope, pvc piping, disposable nappies, cigarette lighters, toys and sporting equipment, fishing equipment, plastic crates, sanitary pads and surgical dressings.

Plastic waste was removed from all Clean Up Sites.
Rivers and creeks (26%), followed by school grounds (20%) had the highest amount of plastic items compared to any other site type. It was also the most dominant item found at all sites except beaches/coastal and shops/malls. It was least likely to be found at outdoor transport with less than 1% or 70 items.

MISCELLANEOUS



The miscellaneous category is dominated by 'cigarette butts' comprising 92% of all miscellaneous waste removed in 2011.

Beyond cigarette butts, clothing and food scraps are significant items collected at sites.

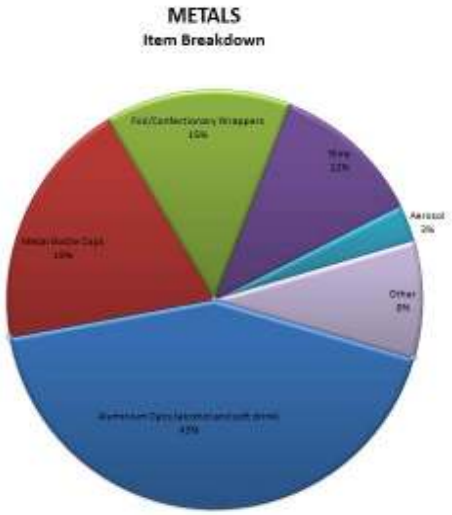
E-waste is also of interest. Despite making up less than 1% of the total miscellaneous items removed the number of items has increased 57% from 162 items in 2010 to 254 in 2011.

Also in the miscellaneous category are syringes which pose a health hazard to participants and the public. A total of 301 syringes were found in 2011.

Miscellaneous items were by far most prevalent at beaches/ coastal sites where a staggering 35,988 items were found or 68%, followed by rivers/creeks and parks 9%.

Miscellaneous items were least likely to be found at outdoor transport sites with less than 1% or 17 items removed.

METAL & ALUMINIUM



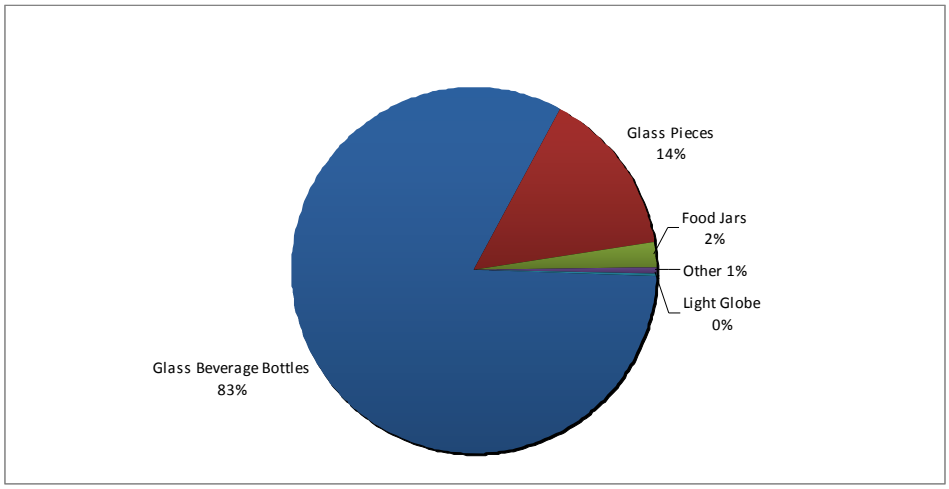
2011 saw an increase of 1.8% in the proportion of metal items removed from Clean Up sites from 2010. However at 12% of all waste items found, the proportion of metal items collected was in line with the five year average.

Food and beverage containers are the dominant sources of metal waste.
Collectively, 'Foil Wrappers', 'Soft Drink Cans', 'Bottle Caps' and 'Alcohol Beverage Cans' represent 76% of all metal waste removed.
After this, metals from construction and small metal pieces were significant.

Parks and rivers/ creeks were the sites where the highest proportion of waste was metal or aluminium at 24% and 22% respectively of waste removed.

Outdoor transport featured the lowest proportion of metal with less than 1% of the rubbish collected.

GLASS



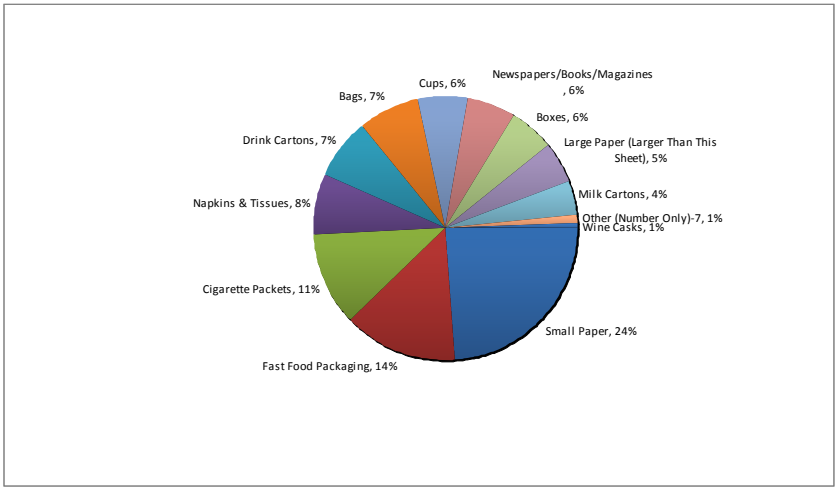
In 2011, glass increased to 14% of the total waste removed from 10% in 2010, in line with the rolling historical average of 14%.

The majority of glass waste found was from beverage packaging.
Specifically 82% of all glass waste was from beverages including alcohol, juice and soft drink bottles.

Glass pieces had the next largest proportion of the total glass rubbish at 15%

Glass was found across all sites surveyed in the 2011 Rubbish Report.
The highest proportion of glass was found at beach/ coastal sites at 40% and rivers and creeks at 22%.
Outdoor transport sites were the least likely to find glass with only 25 items removed.

PAPER & CARDBOARD

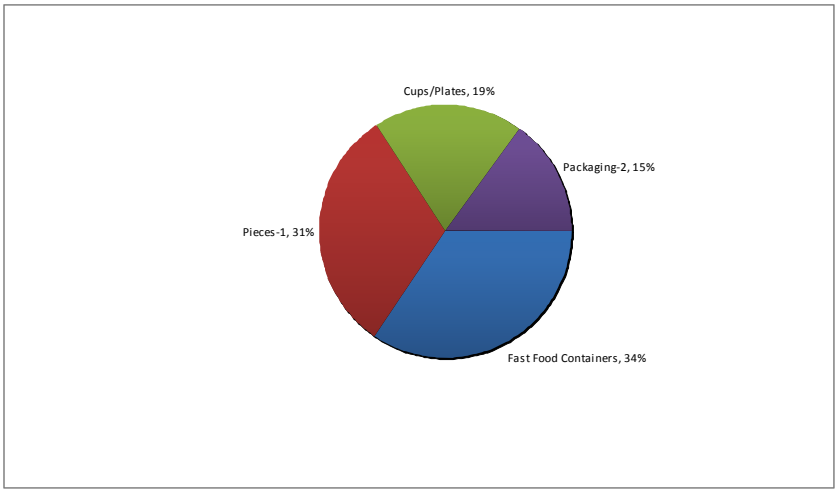


In 2011 the majority of paper waste removed was 'Small Paper' at 24% – indicating that paper rapidly shreds and degrades in the environment.

Food and drink packaging is a key source of paper waste. 'Napkins and Tissues', 'Fast Food Packaging' 'Drink Cartons', 'Wine Casks', 'Cups' and 'Milk and Egg Cartons' constitute almost half paper waste removed (40%).

While paper and cardboard waste was found across all sites, it was most commonly removed from rivers and creeks (20%) roadways (19%) and outdoor transport sites (18%). Outdoor transport sites were the least likely with less than 1% or 25 pieces.

EXPANDED POLYSTYRENE

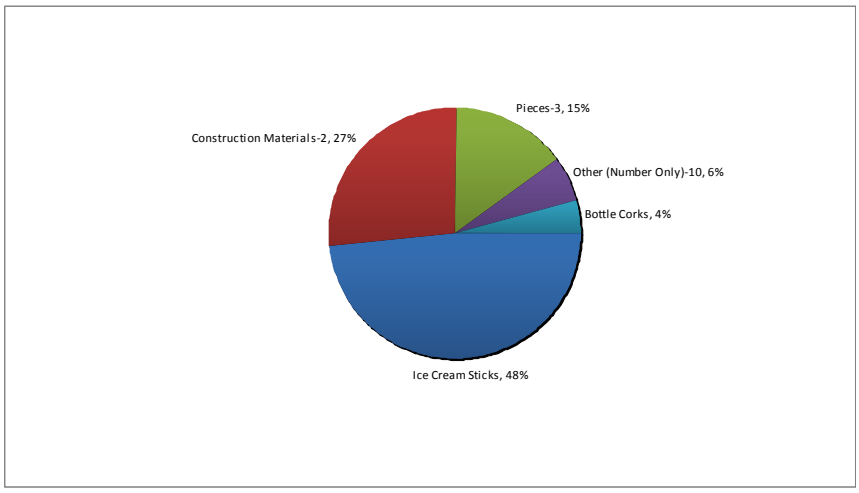


Expanded polystyrene accounted for 4% of the waste items removed in 2011, a significant drop from 8% in 2010.

Polystyrene fast food containers accounted for the largest polystyrene type removed at 34%, closely followed by polystyrene pieces at 32%. Packaging came in last with 15% removed.

Beaches and coast sites were by far the most common place to find polystyrene, with 25% of the total waste removed at these sites followed by rivers and creeks at 21%. Outdoor transport sites were the least likely place to find polystyrene with 16 items found.

WOOD



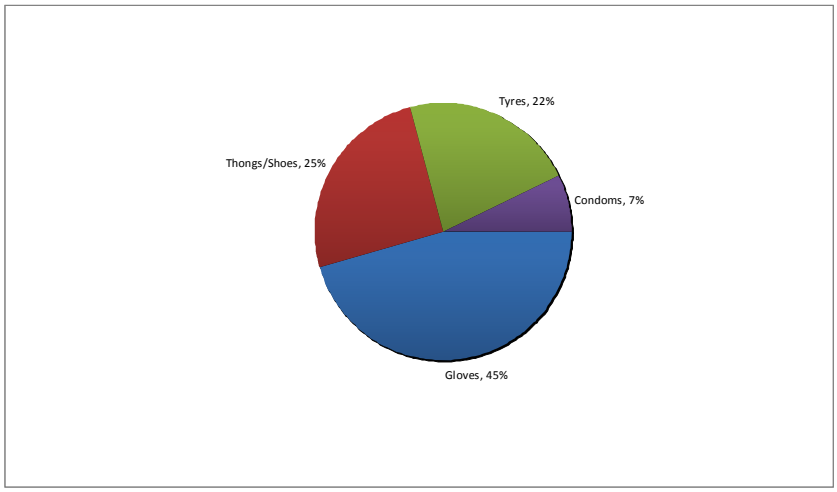
Wood waste is a relatively minor component of the waste found in Clean Up Australia Day, making up 1% of the waste items removed in 2011 which is consistent with 2010.

Once again food packaging is a key source of wood waste in the environment accounting for 52% of all wood items found. This includes 'ice cream sticks' and 'bottle corks'. Of this ice cream sticks made up just under half of all wood items found at 48%.

Construction Materials' came in at second spot with 27% of all wood items found.

The amount of wood found was highest at river and creek locations 24% followed by public bushland at 18%. The least amount of wood was found at shops/malls and outdoor transport locations with less than 1% or 6 and 7 items respectively.

RUBBER



Since 1991 when the Rubbish Report commenced, rubber has historically been the least common item found on Clean Up Australia Day. This was consistent in 2011 with rubber accounting for just over 1% of all items.

Rubber gloves were the most common rubber item removed in 2011 (45%). This was followed by thongs (25%) and tyres (22%).

Rubber was most prevalent at school grounds (40%) followed by beach/ coastal (15%) and then by river/creeks (12%).

Shops/malls were the least likely to find rubber with less than 1% or 1 item found.

IN CONCLUSION

Incentive based refund systems have been proven internationally and more closely to home in South Australia and most recently the Northern Territory.

The Australian community supports the introduction of a refund system. The main barrier is industry, which has a track record of utilizing gorilla style tactics to undermine the credibility and efficiency of schemes even after they have lost the fight for their introduction.

To suggest that public place recycling is a viable alternative is to ignore well published contamination statistics that report contamination in non-supervised public place recycling of between 10-20%. [3]
As soon as contamination reaches 3-5% waste goes to landfill.

[3] Ref: Total Environment Centre


Clean Up