



Clean up
Day

RUBBISH REPORT 2012



Table Of Contents

INTRODUCTION	03
EXECUTIVE SUMMARY	04
· Sites Surveyed	
· Rubbish Sources	
TOP TEN	06
SITE TYPES.....	08
· Most Surveyed	
METHODOLOGY	09
RETURNED VALID SURVEYS BY STATE	10
RETURNED VALID SURVEYS BY SITE TYPE	10
TOP TEN RUBBISH ITEMS	11
MAJOR SOURCES OF RUBBISH	12
HISTORICAL COMPARISON TRENDS	13
MAJOR SOURCES OF RUBBISH	14
· Plastic	
· Metal And Aluminum	
· Miscellaneous	
· Glass	
· Paper And Cardboard	
· Expanded Polystyrene	
· Rubber	
· Wood	
SITE RUBBISH COMPOSITION	22
THE GREAT NORTHERN CLEAN UP 2012	23



Introduction

In 2012 Clean Up focused community attention on **Joining the Winning Team – encouraging communities to join together to remove accumulated rubbish across 7,430 sites nationally.**

An estimated 595,075 volunteers removed around 16,346 tonnes of rubbish in 2012. Over the 23 years of Clean Up Days volunteers have donated more than 25 million hours to removing almost 272,000 ute loads of rubbish from more than 137,500 sites across the country.

This Rubbish Report is a snapshot of the rubbish they removed from our parks, schools, bushland, creeks, beaches and roadways in 2012.

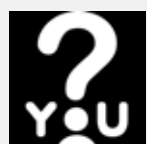
Plastic continues to be the most prevalent rubbish type, recording 38% of all rubbish removed in 2012, up 6% from 2011. Cigarette butts continue to be the most frequently removed item reflecting 11% of the total rubbish recorded this year.

Clean Up Australia Day would not be possible without the generous financial support of our sponsors. 2012 major sponsors were the Commonwealth Bank and YOU [community donors] with Veolia, McDonalds, and the Qantas Foundation continuing their support as sponsors.

It is also important to recognise the vital support that Clean Up Australia Day volunteers receive from local government. In 2012, 228 Councils actively supported their communities.

This is the 22nd Rubbish Report produced by the Clean Up Australia team.

THANKS to our Sponsors and Supporters





Clean up Day

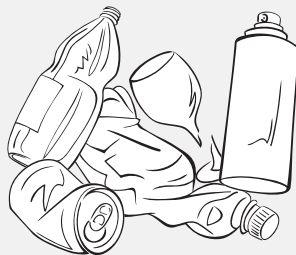
The Rubbish Report is a snapshot of rubbish removed on Clean Up Australia Day.

Since 1991, the Rubbish Report has proven to be an invaluable resource in identifying trends in the types and spread of rubbish throughout Australia.

It continues to demonstrate the importance of avoiding, reducing, re-using and recycling.



Sites Surveyed



316,425
rubbish items were reported

- 1089 End of Clean Up Reports were returned from 7,430 site nationally. Of these 954 recorded valid data for analysis
- A total of 316,425 rubbish items were reported
- Content from a total of 6,460 bags, representing 53% of rubbish at survey sites was counted
- New South Wales (NSW) returned the highest number of valid surveys (334), followed by Queensland (256) and Victoria (161)
- Beaches and coastal areas were the most popular survey sites in 2012, followed by rivers/creeks, parks, residential roadways, bushland and school grounds

Rubbish Sources



PLASTIC
represents 38% of all rubbish

Excluding cigarette butts, **plastic was the most common item**, representing 38% [32% in 2011] of all rubbish items removed.

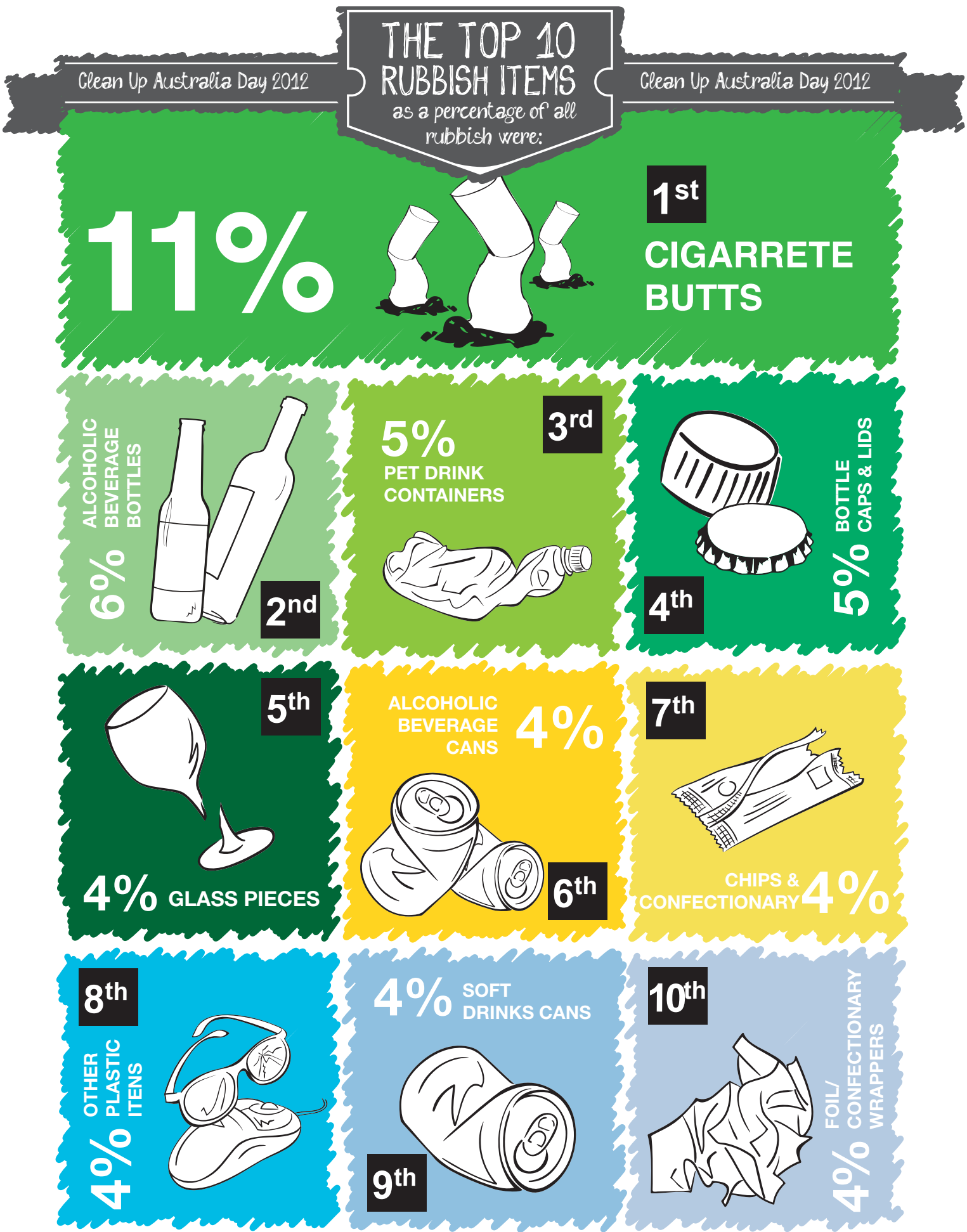
This is the 18th year that plastic has dominated the 'Major Sources of Rubbish'.

PET drink containers, bottle caps and lids and chip/confectionery bags, were the top three plastic items removed.

Metals held the second spot in 2012 – recording 16% of all rubbish removed.

Miscellaneous items were the third most common source of rubbish at 14% of the total. Cigarette butts fall into the miscellaneous category, influencing the placement of this category as a major source of rubbish.

These sources were followed by glass at 13%, paper at 11%, polystyrene at 5%, rubber 2% and wood 1%.



- The Top Ten items represent 51% of all rubbish surveyed in 2012
- While **Cigarette butts** were the single item most commonly found, by mass plastics is the most common items
- **Six of the Top Ten items were related to beverage containers.** They comprise 28% of the total rubbish surveyed
- Six out of the Top Ten items were recyclable, while **all of the Top Ten items related to packaging** in some way
- **Alcohol was a large contributor to glass bottle rubbish** with just over twice the number of containers being alcohol related versus soft drink
- In 2012 **plastic bags** dropped off the Top Ten replaced by other plastic items
- **Bottle caps and lids** moved up from 7th to 4th place
- **Items moving down the list include:**
 - **Alcoholic beverage containers** dropped from 4th to 6th spot
 - **Plastic chips/confectionery** dropped 1 place
 - **Small paper pieces** dropped from the Top Ten



Site Types

AUSTRALIA

Site type	Number of sites	Number of items found	% Of states total waste	Average number of items per site
Parks	157	46352	15	295
Beach/Coastal	207	58196	18	281
Roadway	117	59136	19	505
River/Creek	201	56252	18	280
Public Bushland	101	35485	11	351
School Grounds	99	34508	11	349
Outdoor Transport	6	775	0	129
Shop/Malls	20	11661	4	583
Dive site	3	489	0	163
Other	43	13571	4	316

Most Surveyed Site Types

1. BEACH/COASTAL
2. RIVERS AND CREEKS
3. PARKS
4. ROADWAY
5. PUBLIC BUSHLAND
6. SCHOOL GROUNDS
7. OTHER SITES [NOT SPECIFIED]
8. SHOPS/MALLS
9. OUTDOOR TRANSPORT
10. DIVE SITES

Beach/coastal areas, rivers/creeks and parks continue to be the top three surveyed areas.

Roadways moved up one place in 2012 and had the second most rubbish items of all sites surveyed with an average of 505 items per site surveyed.

Public bushland moved from sixth in 2011 to fifth position, recording the third highest average items at each site surveyed [351].

Waterways [beaches/coastal; river/creeks; dive sites] recorded an average of 724 items per site.

Outdoor transport areas recorded the lowest number of average items in 2012 [129]. However this was a 17% increase on 2011 when these sites reported an average of 22 items per site.

Interesting items found in 2012 included a golf buggy, stereo speakers, a trampoline, a new bird cage, a large cache of golf balls, a GPS unit, assorted furniture items, a Christmas Tree, a large quantity of broken toys, a camp toilet, shoes that had been stuck in mud, a bag of costume jewellery, an historic cordial bottle – donated to the local museum, sawn animal bones, an intact car bonnet, golf clubs, bicycles, a dinghy, and some stage props.

Methodology

Rubbish Report Survey Forms are issued in Clean Up kits as part of the End of Clean Up Report. In 2012 the report was also offered as an on-line option, attracting 51 respondents.

The survey requires those taking part to identify and count a proportion of the rubbish removed from their site.

One in five bags of rubbish removed is analyzed, with a maximum of six bags surveyed per site. If less than five bags are collected, the contents of just one bag is counted.

In 2012, volunteers were again asked to separate their rubbish into recyclable and non-recyclable items, with the provision of 'yellow' and white bags. The intention is to encourage recycling or rubbish where possible. Volunteers are asked to capture a representative sample from both types of bags – for example, if the site collected 10 rubbish bags and five yellow bags, count the items from two general and one recyclable bag.

Each site surveyed is classified by the category that best describes its location. The categories are: Beaches/ Coastal, Outdoor Transport areas, Parks, Public Bushland, River/Creek, Roadway, School Grounds, Shop/ Mall and other.

The Rubbish Report survey form lists a total of 82 specific waste items grouped by type of source material, with 11 'other' categories in each section for those items which do not fit easily within the list. 'Other' items are carefully analysed to capture a numeric value. Source categories are: plastic (further divided into plastic bags, plastic bottles/ containers and plastic miscellaneous), polystyrene, glass, rubber, paper/cardboard, metal/ aluminium (further divided into metal/aluminium cans and metal/aluminium miscellaneous), wood and miscellaneous.

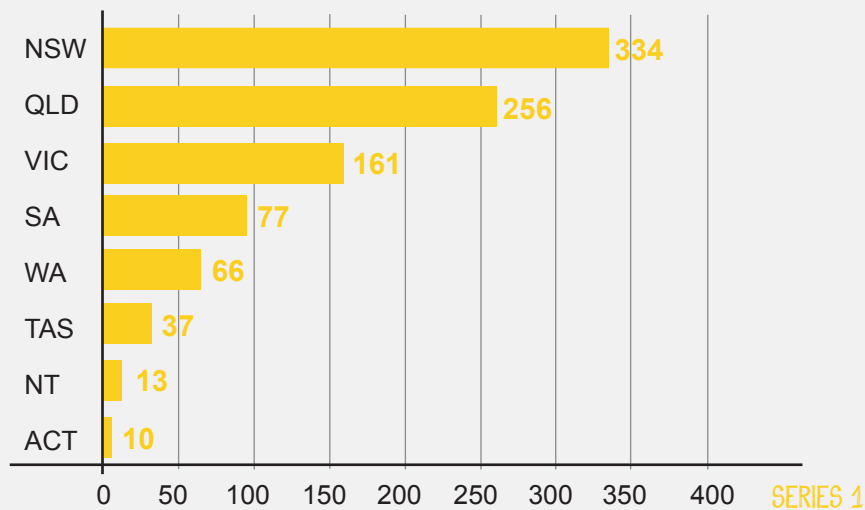
The Rubbish Report is a snapshot of information to show trends over time of rubbish removed on Clean Up Australia Day. It is not intended to be a definitive survey representing all rubbish found in all Australian environments.

The figures presented in the Rubbish Report are based on a sample of Clean Up Sites, where data is collected by our dedicated volunteers.



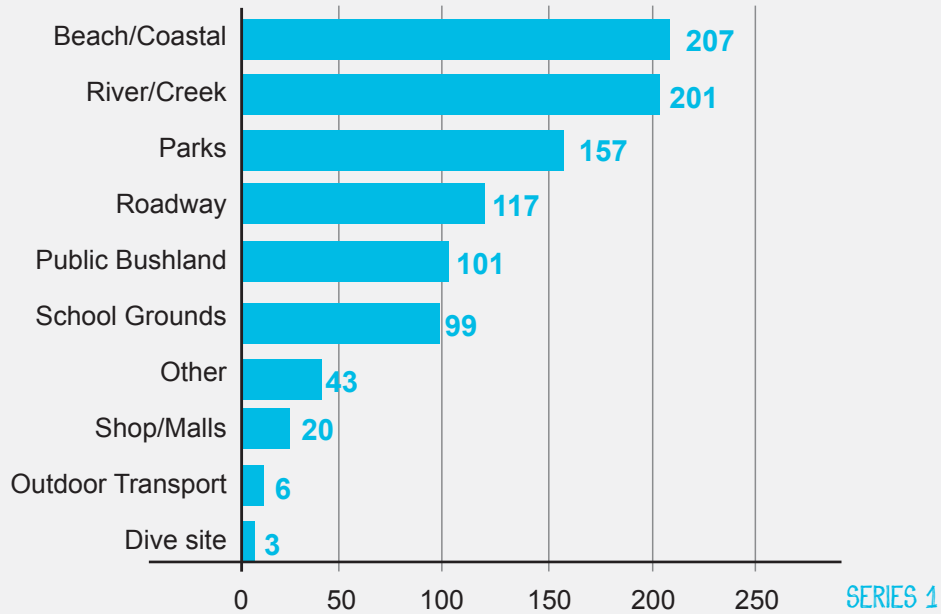
Returned Valid Surveys By State

The 'Returned Valid Surveys by State' chart shows the number of valid Rubbish Report surveys received from each State. New South Wales returned the highest number of valid surveys [334], Queensland returned the second highest number [256] and Victoria [161].

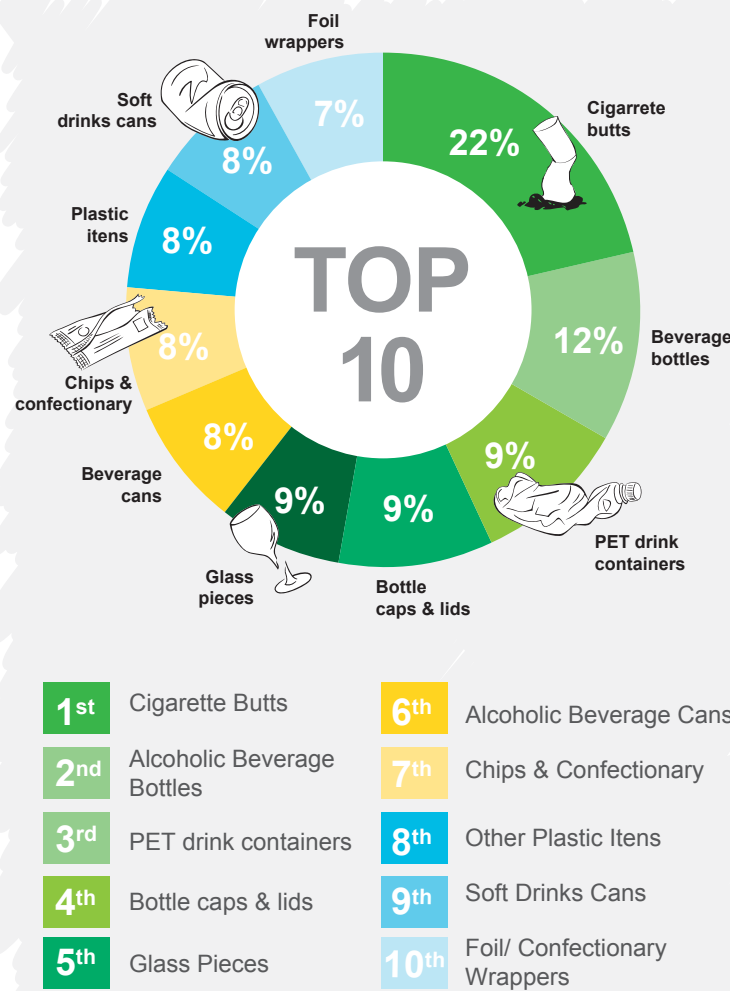


Returned Valid Surveys By Site Type

The 'Returned Valid Surveys by Site Type' chart shows the number of valid Rubbish Report surveys received from each site type. Of the 954 valid surveys returned, the most surveyed site type beach/coastal areas made up 21.7% of all sites, while the least surveyed site type, dive sites made up less than 0.3% of all sites.



The TOP TEN Rubbish Items



The pie chart above shows the top ten rubbish items, displayed here as a percentage of each other.

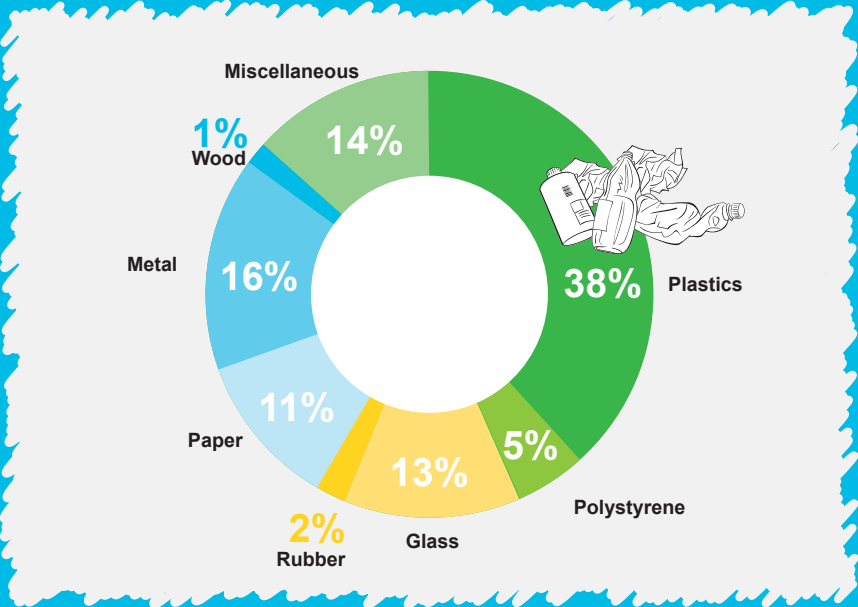
Of all the rubbish removed in 2012, 51% was one of the he Top Ten items. Cigarette butts were the most commonly found item for the 17th year in a row, representing 22% of the Top Ten items.

Alcoholic beverage containers also make notable appearances in the Top Ten, representing 20%. Beverage containers and their associated rubbish accounted for 55% of the Top Ten items [47% in 2011]. Packaging was the sole source of rubbish in the Top Ten in 2012, making up 51% of the total rubbish surveyed, up 11% from 2011.



Major Sources Of Rubbish

The 'Major Sources of Rubbish' chart beside shows the types of rubbish surveyed along with their proportion of the total rubbish.



Summary

PLASTIC

Over the entire 23 years of Clean Up Australia Day, plastics have remained the dominant waste item found. This year, plastics made up 38% of all rubbish removed by volunteers.

METAL AND ALUMINIUM

In 2012 metals were the second largest category, representing 16% of all rubbish items. Beverage containers [alcoholic and soft drink] represented 50% of all metal rubbish. If we add bottle caps to this total beverage containers and their associated rubbish reflect 61% of metals removed.

MISCELLANEOUS

Miscellaneous items were the third largest source of rubbish in 2012 [# 2 in 2011]. Cigarette butts continue to be the largest miscellaneous waste item found, representing 79% of all miscellaneous items. Other miscellaneous items of significance included unidentifiable items, food scraps, and clothing.

GLASS

Glass accounted for 13% of all 2012 items, down 1% on 2011. Alcohol and soft drink bottles were the dominant form of glass, making up 60% of the total. Broken glass represented 32% of all glass removed [15% in 2011].

PAPER AND CARDBOARD

Consistent with 2011, paper represented 11% of all waste removed. Food packaging [paper bags, napkins, and fast food packaging] represented 32% in 2012. Small pieces of paper was the single most reported paper item at 21%.

EXPANDED POLYSTYRENE

Expanded polystyrene represented 5% of rubbish removed in 2012 – up 1% on 2011. Of the total polystyrene items, small pieces took out the single item top spot at 42% [32% in 2011], with food packaging reflecting 39% [24% in 2011].

RUBBER

In 2012 rubber was the second smallest category of waste at 2% which was double the 2011 result. The most significant rubber item found was rubber gloves, which accounted for 43% of all rubber items removed followed by thongs/shoes [22%] and tyres [18%].

WOOD

At 1% wood was the smallest category of rubbish removed in 2012. Ice cream sticks continue to top the wood table @ 44%, followed by construction waste @ 27% and small pieces of wood @ 20%.

Historical Comparison

The following shows the historical change in the percentage of each rubbish type reported by volunteers. Beginning in 1991, the graph demonstrates the composition of rubbish removed across Australia.

Year	Plastics	Foam/Polystyrene	Glass	Rubber	Paper	Metals	Wood	Misc.	Total Items
1991	35.0	8.6	14.4	1.5	13.6	14.3	2.8	9.6	100.0
1992	26.8	9.5	17.1	1.2	24.9	11.9	3.7	4.8	100.0
1993	40.8	7.7	13.3	1.0	18.9	13.9	1.7	2.8	100.0
1994	41.4	6.3	13.0	0.7	21.6	12.3	2.0	2.6	100.0
1995	31.2	4.0	10.3	0.7	24.9	18.1	3.0	7.8	100.0
1996	33.4	8.7	10.1	1.3	19.9	13.6	1.8	11.2	100.0
1997	27.0	7.5	14.7	1.0	18.3	17.9	2.3	11.2	100.0
1998	29.1	6.6	13.4	1.2	19.5	14.5	2.4	13.3	100.0
1999	36.0	6.8	12.3	1.4	15.0	13.6	1.9	13.0	100.0
2000	32.1	4.9	10.1	1.2	15.2	19.1	2.5	14.9	100.0
2001	33.7	4.8	12.1	1.2	13.8	15.2	2.0	17.2	100.0
2002	33.4	6.9	11.8	1.2	14.1	14.1	2.3	16.2	100.0
2003	36.0	3.5	11.8	1.3	17.7	15.2	1.7	12.7	100.0
2004	37.3	4.8	11.8	1.0	12.7	13.5	1.9	17.0	100.0
2005	32.0	5.0	14.0	1.0	15.0	12.0	2.0	19.0	100.0
2006	33.7	5.2	11.7	1.8	15.9	13.2	2.1	16.4	100.0
2007	33.1	4.4	15.5	2.3	15.1	13.4	1.8	14.4	100.0
2008	31.7	4.8	13.1	1.7	12.6	14.6	3.8	17.7	100.0
2009	28.5	3.5	16.4	1.4	12.7	17.5	2.2	17.8	100.0
2010	31.3	7.7	10.5	1.1	14.7	12.4	1.1	21.2	100.0
2011	32.0	3.9	14.0	1.2	11.3	14.2	1.5	22.0	100.0
2012	38.3	4.9	13.3	1.7	11.2	15.7	1.4	13.5	100.0
YOY +/- %	20%	25%	-5%	39%	-1%	11%	-4%	-39%	
5 Year Rolling Average	32.3	5.0	13.5	1.4	12.5	14.9	2.0	18.4	100.0
Vs Rolling Average	18%	-1%	-1%	20%	-10%	6%	-30%	-27%	
10 Year Rolling Average	33.4	4.8	13.2	1.4	13.9	14.2	2.0	17.2	100.0

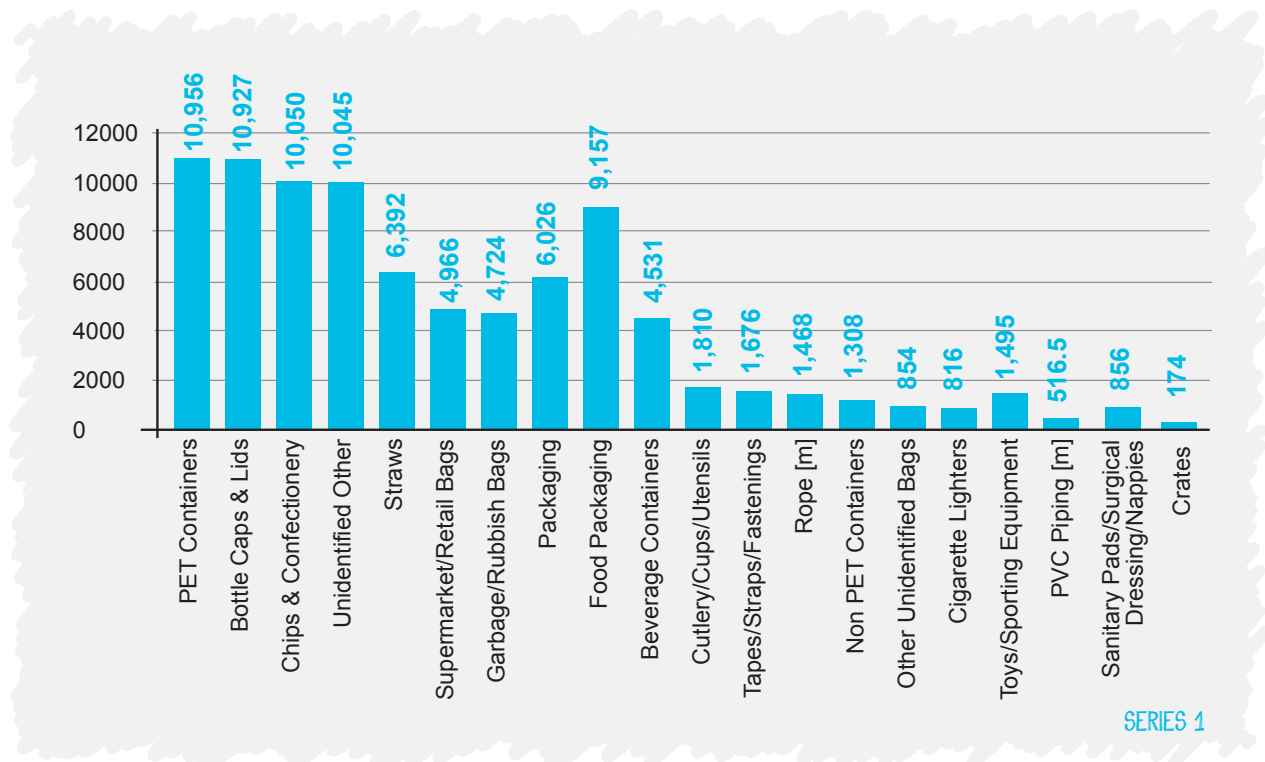
Trends

The table shows the rolling averages over the last five and ten years since 2008 and 2003 respectively to give a more accurate reflection of trends over time.

Rolling averages 5 and 10 years are remarkably consistent; with plastics and paper showing slight increases, polystyrene, glass, metals and miscellaneous items recording slight decreases and wood remaining the same.

Major Sources of Rubbish Analysis of Each Category

PLASTIC



Plastics are made from non-renewable oil based resources. Plastics removed on Clean Up Australia day are not biodegradable and would, if left in situ, survive in the environment for hundreds of years. At best plastic breaks down into smaller and smaller pieces – which is actually a worse environmental outcome, with smaller pieces entering the food chain earlier.

In 2012 plastic was once again the dominant waste type reported by volunteers. Rating at 38% of all rubbish removed, plastics represented 88,474 surveyed items.

A total of 29 different forms of plastic waste are categorised in the rubbish survey, they have been regrouped for the graph.

Individually 'PET containers' ranked #1 reflecting just over 12% or just over one in nine plastic waste items removed. Bottle caps and lids also came in at 12%, closely followed by chips and confectionery wrappers @ 11%.

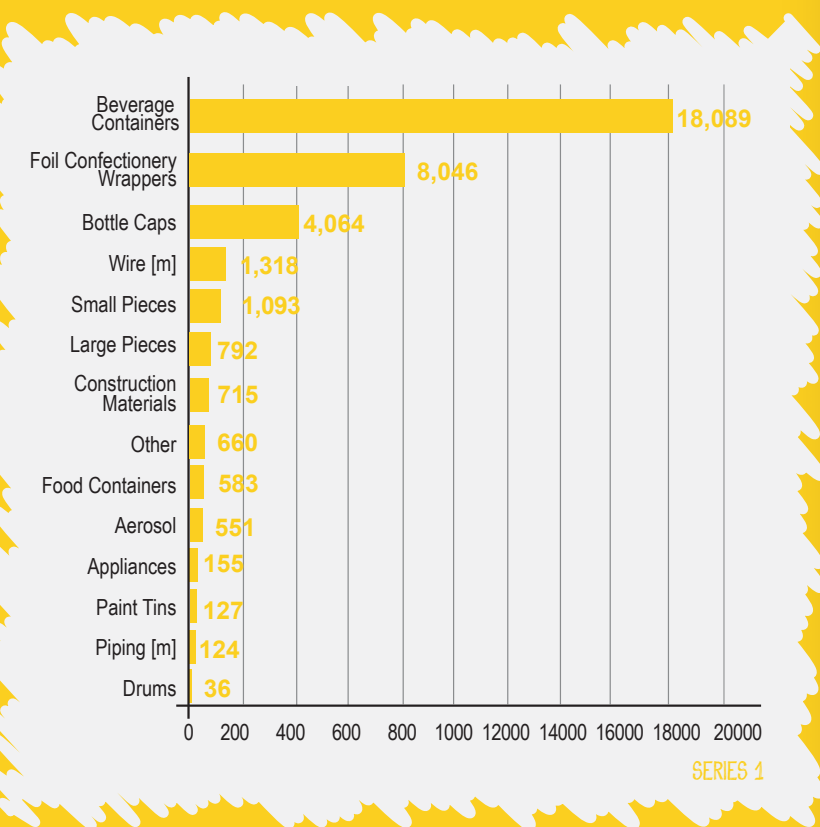
Beverage containers and their associated rubbish represented 37% of all plastic rubbish reported.

Food packaging represented nearly 24%.

Other packaging, including plastic bags, strapping and crates represented 13%.

The remaining 26% of items included medical waste [sanitary, nappies and surgical], toys & sporting equipment, PVC piping, cigarette lighters and unidentified items.

METAL & ALUMINIUM



Metals removed from the environment increased by 2% in 2012 –continuing the trend of increases which started in 2011.

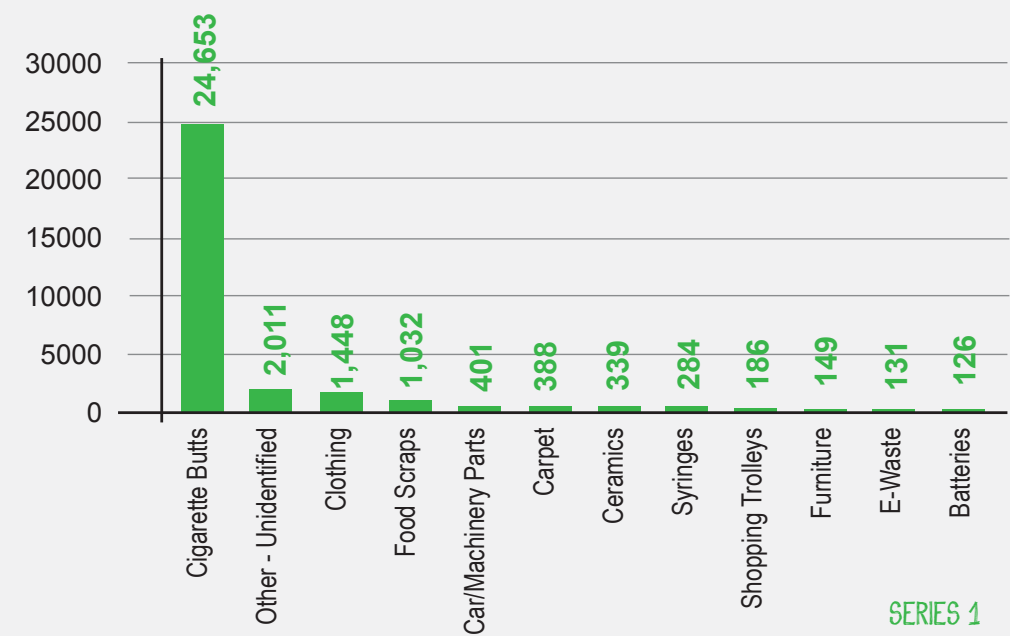
Food and beverage containers continue to be the dominant sources of metal waste.

Collectively, 'Foil Wrappers', 'Soft Drink Cans', 'Bottle Caps' and 'Alcohol Beverage Cans' represent nearly 85% of all metal waste removed [76% in 2011]. The next most significant materials were wire and small metal pieces.

36,353 metal items were recorded in 2012.



MISCELLANEOUS



31,148
miscellaneous items were
recorded in 2012 surveys

Cigarette butts continue to dominate the miscellaneous category – representing 90% of the rubbish removed in 2012.

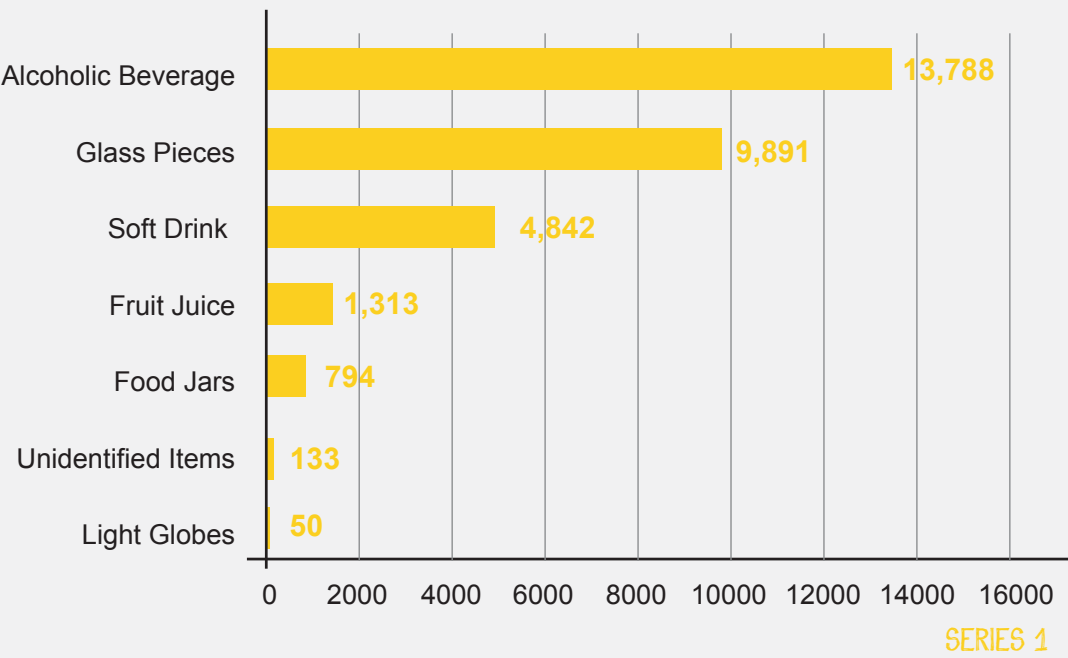
Unidentified objects took our second spot in 2012 [2011 items], followed by clothing [1448 items] and food scraps [1032 items].

The good news is that e-waste items decreased in 2012, surveys reporting 131 items, versus 254 in 2011 and 162 in 2010. Credit for this decrease belongs to local government campaigns to encourage return of e-waste through free drop-off centres.

It was also good to see a marginal decrease in syringes within surveys in 2012, [down 17 from 2011].

31,148 miscellaneous items were recorded in 2012 surveys.

GLASS



65%
of glass surveyed was
beverage
packaging

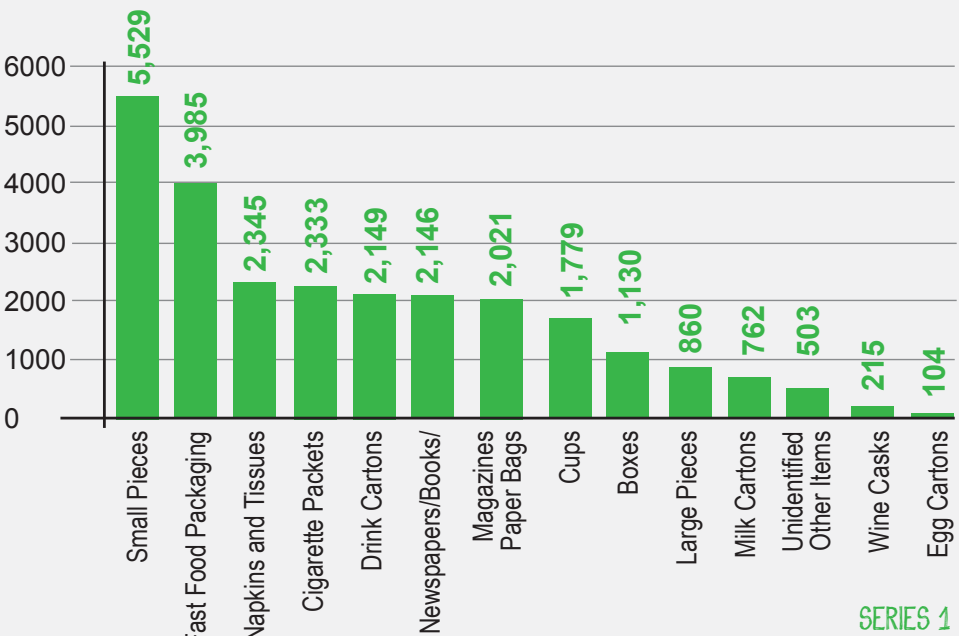
In 2012, glass accounted for 13% of surveyed items, down 1% from 2011. While encouraging, glass counts are still higher than 2010 when they hit their lowest level.

65% of glass surveyed was beverage packaging [alcohol, soft drink, and fruit juice].

Broken glass accounted for 32% of rubbish reported.

Volunteers counted 30,851 glass items in their 2012 Rubbish Surveys.

PAPER & CARDBOARD



25,861

paper and cardboard items were counted in 2012

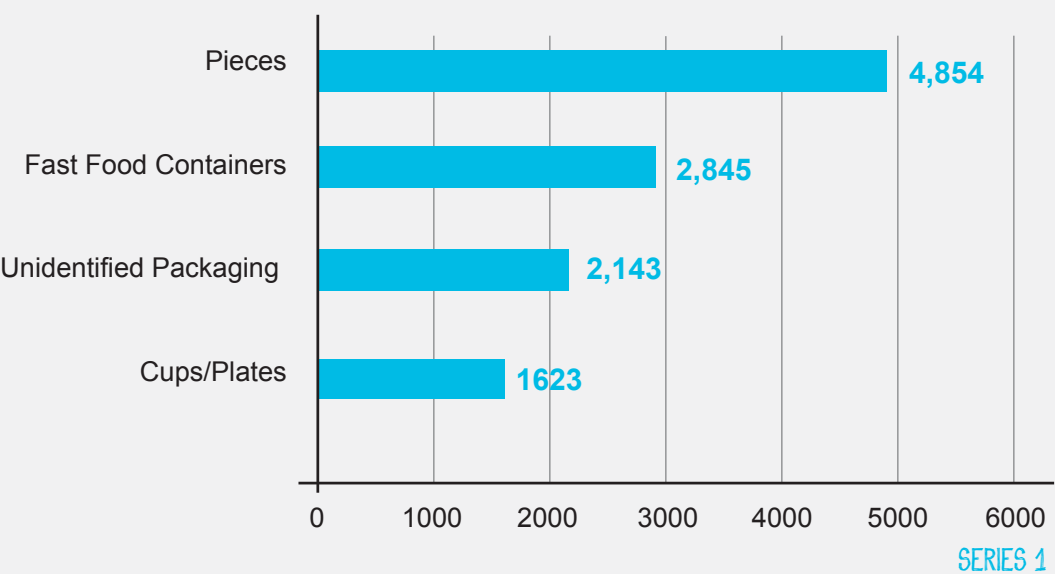
In 2012 the majority of paper waste removed was ‘Small Paper’ at 21% [down 3% from 2011].

Cumulatively food and drink packaging is a key source of paper rubbish. ‘Napkins and Tissues’, ‘Fast Food Packaging’ ‘Drink Cartons’, ‘Wine Casks’, ‘Cups’ and ‘Milk and Egg Cartons’ constituted nearly 52% of all paper surveyed.

Cigarette packets were the number 4 paper product reported [2333 items].

25,861 paper and cardboard items were counted in 2012.

EXPANDED POLYSTYRENE



Fast Food Containers

accounted for 25% of reported rubbish

Expanded polystyrene accounted for nearly 5% of the rubbish removed in 2012, an increase of 1% over 2011, but a significant drop from 8% in 2010.

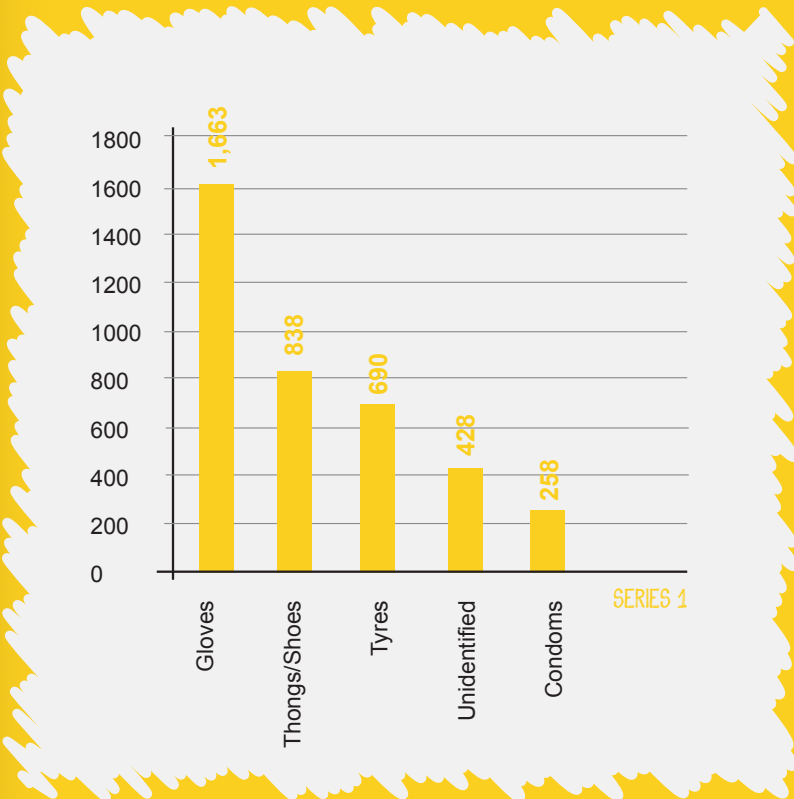
Expanded polystyrene is categorised separately from all other plastics due to the unique environmental hazards it poses. Composed of around 95% air, polystyrene is highly mobile with the potential to travel long distances. Its soft structure means it’s likely to fragment into pieces and can harm wildlife upon ingestion. The high likelihood of breaking into smaller pieces can be seen with 42% of all expanded polystyrene found being either partially or completely fragmented.

Polystyrene fast food containers accounted for 25% of reported rubbish, narrowly ahead of unidentifiable items @ 19%. Disposable cups and plates came in at 14%.

Volunteers recorded a total 11,465 items of polystyrene.



RUBBER



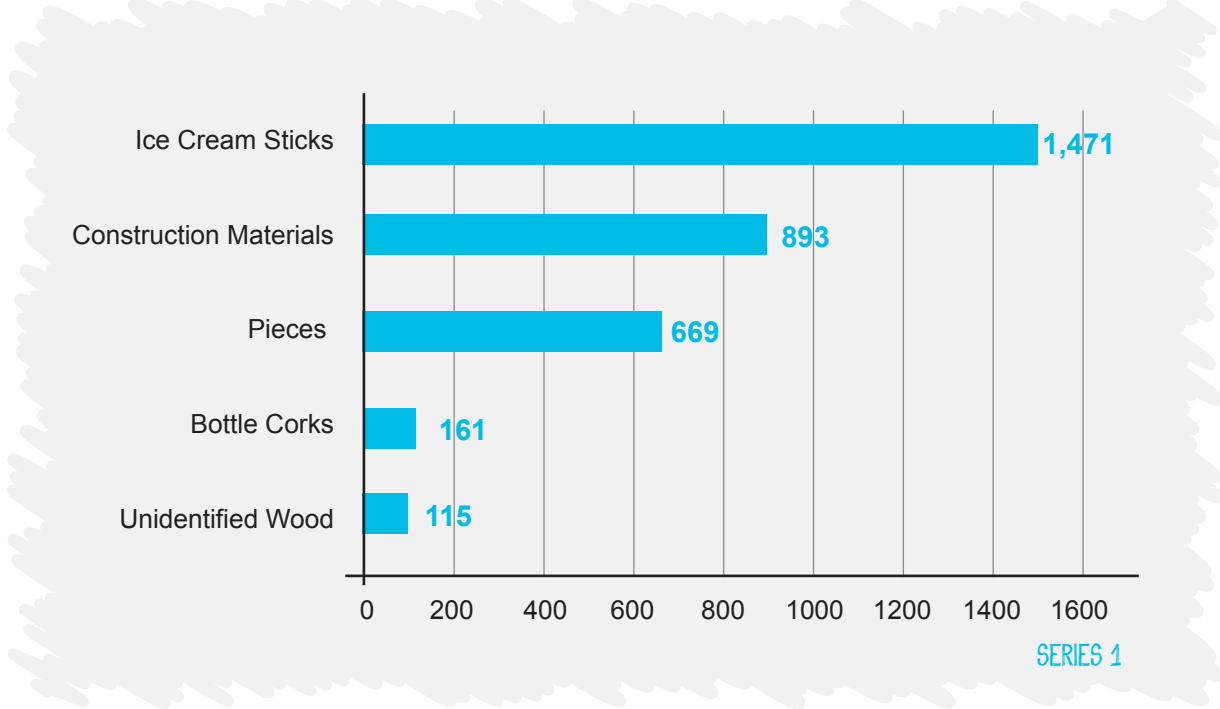
In 2012 rubber accounted for 2% of rubbish reported – double the amount of 2011.

Rubber gloves were the most common rubber item removed at 43%. This was followed by thongs/shoes at 22% and tyres at 18%.

Tyres, because of their volume, greatly increase tonnage of rubber removed by volunteers.

A total of 3,877 rubber items were recorded in 2012 surveys.

WOOD



At 1% of reported items, wood was the least likely rubbish type removed in 2012.

Consistent with previous years, ice cream sticks were the most widely reported item accounting for 44.5% of all wood items found.

Construction Materials' came in at second spot with 27% of all wood items, on par with 2011

Pieces of wood represented 20% of surveyed items this year, an increase of 5% over last year.

Bottle corks decreased by 1%, probably due to a reduction in corks within the market.

Surveys reported 3309 wood items nationally.

Pieces of wood
represented 20% of surveyed items

Site Rubbish Composition

The following table outlines the proportions of different types of rubbish removed from each site.

	Parks	Beach coastal	Roadway	Public Bushland	School Grounds	Outdoor Transport	Shops Malls	Dive *
Plastic	31.10	40.29	31.71	29.73	47.79	26.97	31.88	44.99
Polystyrene	5.73	5.93	4.74	8.13	3.77	9.29	1.18	0.00
Glass	12.22	12.88	14.22	16.17	7.09	16.90	21.92	10.63
Rubber	1.07	1.23	1.43	2.27	3.37	0.39	0.48	0.82
Paper/cardboard	10.35	6.13	15.63	10.64	15.43	14.84	16.40	0.00
Metals	12.86	11.81	22.15	22.07	16.14	15.48	12.29	38.04
Wood	1.62	1.71	1.35	2.54	1.31	1.94	1.07	0.20
Miscellaneous	25.06	20.03	8.79	8.45	5.10	14.19	14.78	5.32
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[*It should be noted there were only 3 dive sites surveyed]

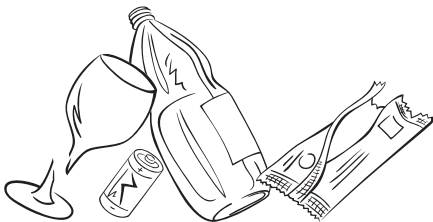
Plastics were the dominant material removed by volunteers, averaging 35.56% across all site types.

Beach coastal sites and Parks rank highly for miscellaneous items. The highest proportion of metals was found in Roadway, Public Bushland areas and the three dive sites.

Outdoor transport areas were the site of the greatest percentage of polystyrene; predominantly cups.

Shops/Malls accounted for the highest percentage of glass.

Paper and cardboard are most likely to be found on roadways, in school grounds and at Outdoor Transport sites. Food packaging accounts for the highest proportion of this rubbish.



2012 Rubbish Report Sponsors and Supporters

A round of applause is due to our generous funders and suppliers:

- Major Sponsors: The Commonwealth Bank, YOU
- Sponsors: McDonalds, Veolia Environmental Services and the Qantas Foundation
- Suppliers: Paramount Safety Products [gloves] Shop-a-docket, Look Print [signage], Becton Dickinson [sharps containers]

The Great Northern Clean Up 2012

In response to local community and government feedback that March is not a great time to be working in the tropical sun, The Great Northern Clean Up was piloted in 2009.

North of the Tropic of Capricorn, in its first three years an estimated 13,800 volunteers have removed around 716 tonnes of rubbish from 357 registered sites.

In 2012 the event took place over the third weekend of September, coinciding with Clean Up the World.

And the response continues to be positive with an estimated 4,514 volunteers removing approximately 290 tonnes of rubbish from 132 registered sites.

State by state volunteers achieved:

NT: 23 Sites, approximately 1,036 volunteers, estimated 50.6 tonnes of rubbish removed.

QLD: 85 Sites, approximately 2,716 volunteers, an estimated 193.2 tonnes of rubbish removed.

WA: 21 Sites, approximately 690 volunteers, estimated 46.2 tonnes of rubbish removed.

Congratulations to our Top Enders, the squads of green Nomads who have joined the team and a special thank you to the Councils who work with us in supporting volunteer efforts.





Clean Up Australia Ltd
PO Box R725 Royal Exchange NSW 1225
cleanup@cleanup.com.au

Clean Up Australia Day	1800 282 329
Clean Up Australia	+61 2 8197 3400
Clean Up the World	+61 2 8197 3420

www.cleanup.org.au

