

NSW Litter Prevention Kit

*Things you should know
about litter and litterers*



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Things you should know about litter and litterers

Why care? In a nutshell

- Litter makes an area look dirty and uncared for, unpleasant to be in and less likely to be used and enjoyed by the community.
- People are much less likely to litter in clean areas and littered places keep attracting more litter.
- Litter dropped in streets pollutes areas and can end up in our waterways.
- Litter can harm people and animals.
- It costs millions of dollars to manage and clean up litter, money that could be put to much better use in our communities.

Litter in NSW

- The estimated cost of litter services nationally is approximately \$300 million to \$350 million annually.¹
- Approximately 95 per cent of resources are allocated to litter management and 5 per cent to litter prevention.²
- Litter can block drains which can cause flooding (costing councils millions of dollars to repair).
- Litter can be dangerous to people particularly littered items such as broken glass, needles and syringes.

- Litter may be a fire hazard (lit cigarettes being thrown from vehicles).
- Approximately 7 billion cigarette butts are littered in Australia each year.³
- Litter, such as cigarette butts, plastic bags and other plastic items harm animal and marine life in a variety of ways:
 - through polluting the water they live in
 - when they mistake litter items for food and eat them
 - when they get caught up in plastic items and get injured or even strangled.
- 95 per cent of the litter on beaches comes from suburban streets, down the street drains and through the stormwater system.⁴
- Between 2007 and 2009, the NSW Stormwater Trust's Urban Stormwater Program reported diverting 10,000 tonnes of pollution from entering Sydney waterways⁵. Based on Sydney Water Corporation's 70 stormwater improvement devices around Sydney which recover roughly equal amounts of sediment and litter⁶, this suggests that there could be as much as 5000 tonnes of litter entering Sydney waterways each year.
- There are 1.15 million dogs in NSW⁷. Dogs generate about 227grams of dog poo⁸ each day. This adds up to over 280 tonnes of dog poo being generated each day in NSW. Just 28 grams of dog poo contains 23 million microorganisms of bacteria – nearly twice that of human waste.⁹



Is there more or less litter?

The 2011/12 National Litter Index¹⁰ results for NSW show:

- There was an overall average decline of 16 per cent in the number of items counted compared to 2011 and a 28 per cent decline since 2005/06.
- Average estimated volume of litter also decreased by 16 per cent from 2011 and is 40 per cent lower than in 2005/06.
- Cigarette butts continue to be the most littered item. Although lower than in previous years, cigarette butts continue to be by far the most littered item in NSW, making up 43 per cent of all littered items.
- Cigarette butts were most prevalent in retail sites and shopping centres, where they were more than three times more numerous than the next most common littered material at these sites. Above average numbers of cigarette butts were also found at car parks and industrial sites.
- By item number, the most littered sites were industrial sites, followed by retail sites and car parks.
- The most littered NSW sites, in terms of volume per 1,000m², occurred in industrial sites, followed by car parks and along highways.
- Plastic items and paper/paperboard items contribute most to the volume of litter across all sites.
- Plastic contributed the largest amount to litter volume, amounting to 2.75 litres per 1,000m² or 31 per cent of all litter volume. Close to 40 per cent of this was found at industrial sites. Above average plastic litter volumes were also found at highway and beach sites.

- The volume of plastic litter has declined over the last year, from 3.00 litres per 1,000m² in 2010–11 to 2.75 litres in 2011–12. It has also declined from 2005–06 levels, when it was 4.19 litres.
- Paper/paperboard objects contributed the second largest volume to the litter stream, with 2.34 litres per 1,000m², down from 2.72 litres in 2010–11.
- Decreases in the litter items recorded per 1,000m² compared to the previous year were evident across all site types but most strongly evident at retail sites, industrial sites, car parks and along highways.
- An analysis of seasonal fluctuations shows that greater numbers of items are littered in November compared to May across almost all site types.

Cigarette butts: the facts

7.2 BILLION cigarette butts are littered annually in Australia¹¹.

TOP 10 Cigarette butts have made the top ten items picked up on Clean Up Australia Day since 1990¹². In NSW cigarette butts dropped from 33 per cent in 2011 to 8 per cent of rubbish removed in 2012. This is the single greatest drop recorded nationally¹³.

1 HOUR The time it takes for chemicals to leach from cigarette butts when in contact with water.

1,959 The number of fires attributed to cigarettes in a year in NSW by the NSW Fire Brigade.

5 YEARS Cigarette butts take up to five years to break down¹⁴.



Cigarette butts continue to be the most littered item in NSW, making up 43% of all littered items.

What is Litter?

According to the law...

The definition of 'litter' under section 144A of the NSW *Protection of the Environment Operations Act 1997* (POEO Act) is as follows: 'Litter' includes:

- (a) 'any solid or liquid domestic or commercial refuse, debris or rubbish and, without limiting the generality of the above, includes any glass, metal, cigarette butts, paper, fabric, wood, food, abandoned vehicles, abandoned vehicle parts, construction or demolition material, garden remnants and clippings, soil, sand or rocks, and;
- (b) any other material, substance or thing deposited in a place if its size, shape, nature or volume makes the place where it is deposited disorderly or detrimentally affects the proper use of that place, deposited, in or on a place, whether or not it has any value when or after being deposited in or on the place.'

The EPA and local councils have the regulatory authority to enforce the littering provisions of the POEO Act and Waste Regulation. There are a range of on-the-spot fines depending on the litter involved and the circumstances of the case. Examples of fines for individual offences include:

- A single fine for littering:
 - ✓ \$60 for littering small items, such as bottle tops and cigarette butts
 - ✓ \$200 for general littering and littering from vehicles
 - ✓ \$200 for placing advertising material in inappropriate areas where it has the potential to be litter such as under car windscreen wipers
 - ✓ \$375 for aggravated littering which threatens public safety or the environment, such as intentionally breaking glass.

Larger fines apply for corporations and the maximum penalties for all offences are greater again if proceedings are taken to court.



The EPA and councils have the regulatory authority to enforce the provisions of the POEO Act and Waste Regulation.

According to people...

Despite the legal definition, focus group research in NSW in 2011¹⁵ suggests that people perceive some items and materials as more acceptable to litter than others (Figure 1). Size, mess and degradability are some factors that influence what people perceive as litter:



Figure 1

The Victorian Litter Action Alliance Litter Prevention Kit¹⁶ also echoes this (Figure 2). It reinforces the feedback above. Harmful or non-biodegradable – syringes, nappies and broken glass for instance – are viewed as unacceptable because they are undeniably harmful to humans and animals. Less harmful, biodegradable or edible – items that disappear quickly or are thought to be edible by animals – seem more acceptable.

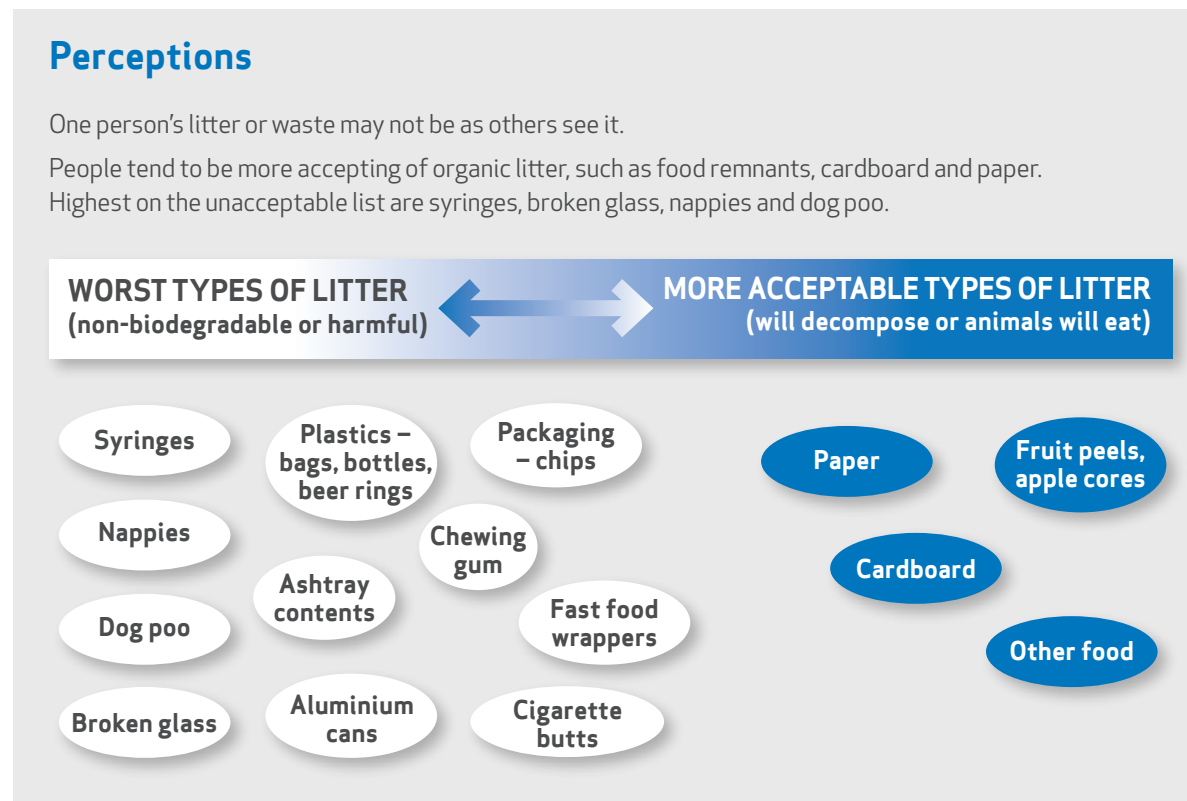


Figure 2

Everyone litters – somewhere, some thing, some time

There are many different ways to tackle litter problems because there is no single cause.

Some people litter because they can't be bothered finding a bin. Others litter because it's simply a bad habit they've formed. The real picture is more complicated than this.

Research¹⁷ over many years shows the same person may or may not litter for a variety of reasons in different locations. They are not even aware of what influences them.

Here are some examples:

- **Type of item** – people are more likely to litter cigarette butts than any other item often because there is no bin nearby or butts are considered to be 'only small'.
- **Type of place** – people are more likely to litter at some places than at others, for example, when getting onto transport at bus stops or in places where they think they're not likely to be seen littering.
- **Cleanliness of the location** – people are less likely to litter somewhere that's already clean.

- **Bins** – people are less likely to litter if a bin is close to where they need it. They are more likely to litter if the bin itself is dirty.
- **Features of a location (or infrastructure)** – people are less likely to litter when a location looks clean, the furniture and bins look well cared for and there is no graffiti or vandalism.
- **What others are doing** – people will leave litter piled next to a bin because others have. In places like sports stadiums people will leave litter under their seats because other people have, or because 'someone else will clean it up'.
- **Signs** – people are more likely to make correct disposal choices when signage is clear and consistent.
- **Knowledge** – people may be less likely to litter when they understand how and where their litter ends up.

These different influences mean that a person may interact with the same litter item in different ways depending on the situation. For example, they may walk 300 metres to put a plastic cup in a bin at a park or at the beach but litter the same item under the seat at a football stadium.



Different influences mean that a person may interact with the same litter item in different ways depending on the situation.

This research is also reinforced by the NSW focus group findings¹⁸. The factors below were identified as impacting on someone's littering actions. Figure 3 illustrates that people will litter according to:

- how they feel about a place
- whether they will be seen
- litter type
- their views about whether littering matters.



Figure 3

Research¹⁹ was conducted with different groups of litterers who self-identified as either heavy, moderate or anti litterers. Figure 4 shows how people in each of these groups identified factors that affected them:

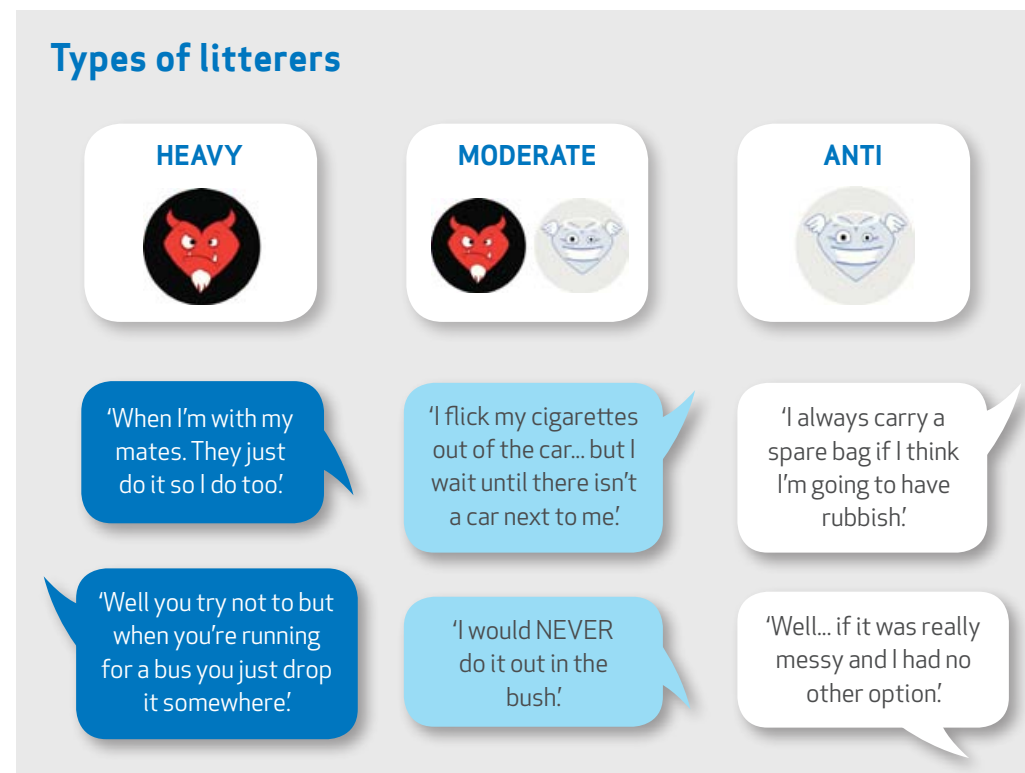


Figure 4

Different self categorised 'types' of litterers (e.g. heavy, moderate) also showed that their behaviour was also highly variable based on different perceptions of themselves and how they relate to other people and their surroundings (Figures 5 and 6):

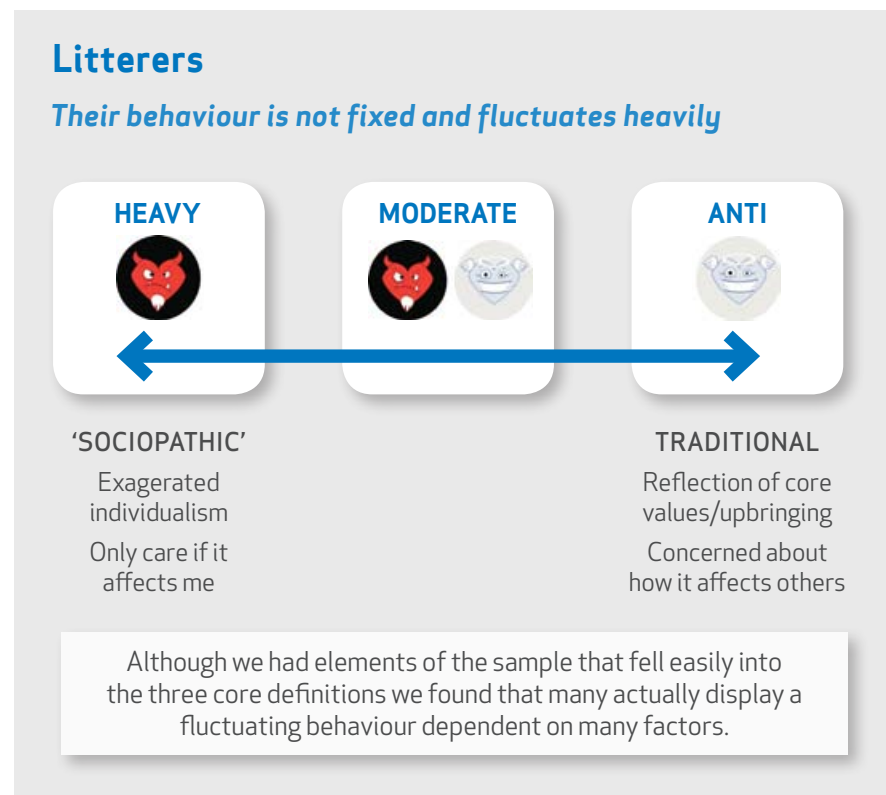


Figure 5

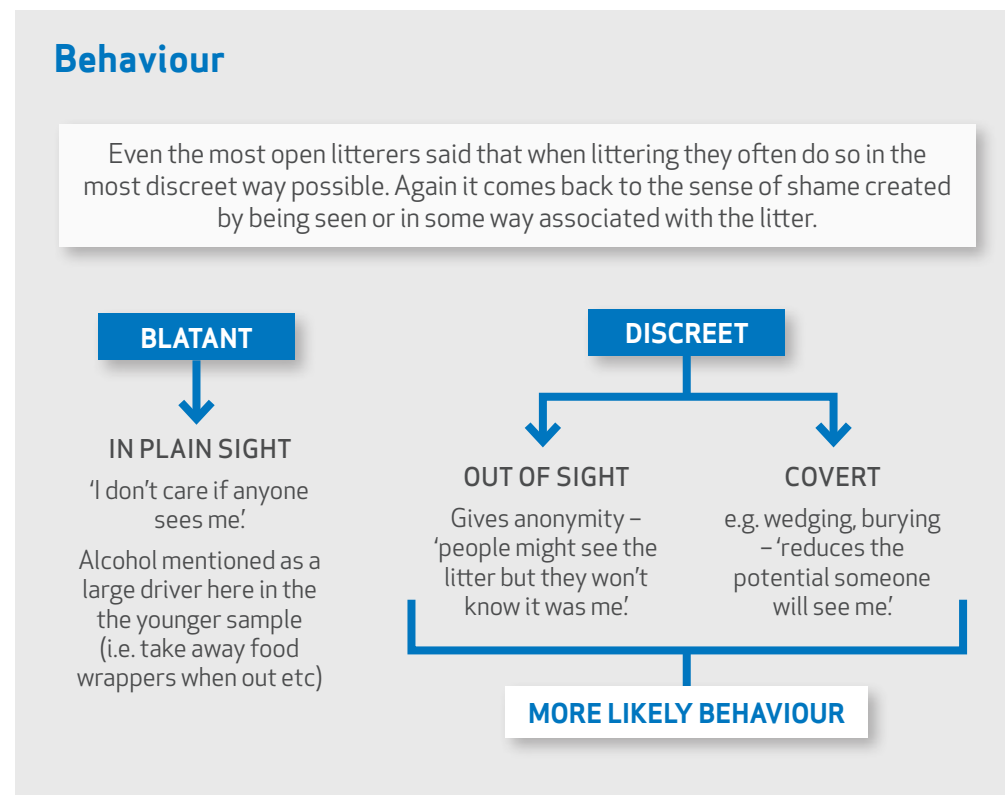


Figure 6

Despite varying levels of littering and motivations however, everyone in the focus groups talked about situations where they knew their littering was wrong. But this wasn't always enough to stop them littering (Figure 7).

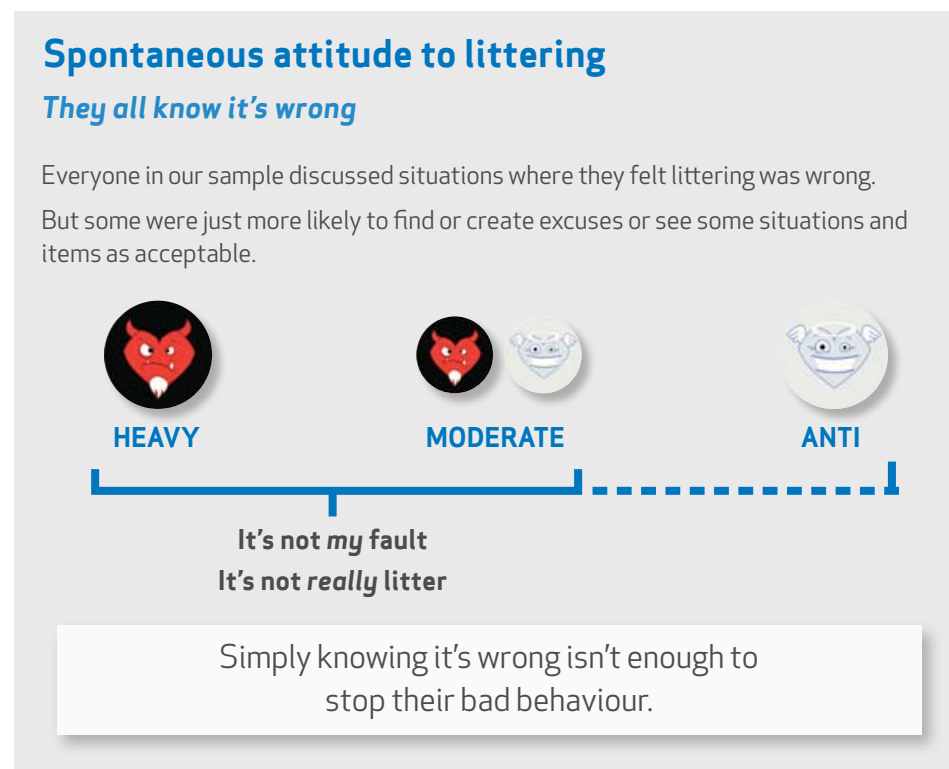


Figure 7

An interesting factor that seemed to influence whether someone would litter was whether there were other people around to see them litter. No matter how often and where people litter, they would prefer not to be seen because there is some concern about other people's judgement.

The litterer's response to this is to try and litter as discretely as possible (Figure 8).

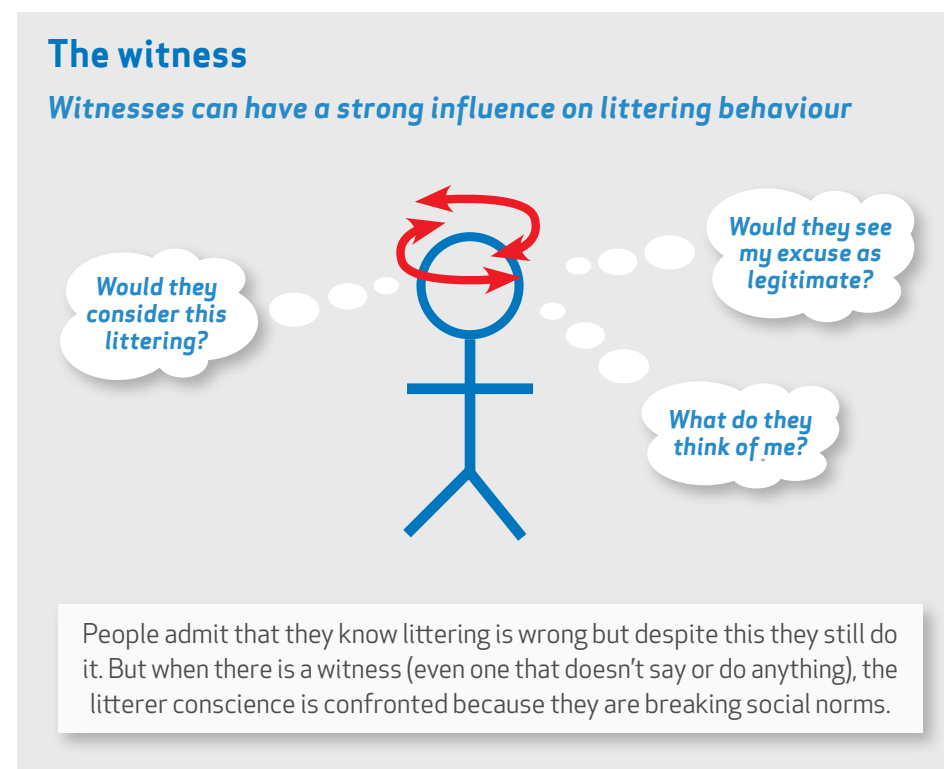


Figure 8

Why are some places littered and others stay clean?

It is clear that some areas are more littered than others. This is because how we feel about, use and look after a place affects whether we will litter there.

Public places that are clean, safe and user friendly promote participation of the community (and visitors) in efforts to care for and maintain the location, as well as growing a sense of ownership and community pride.

An area that is littered can be sending strong signals about how to behave in that area and gives an indication of whether the area is cared for or not.

The way neighbourhoods look have a strong link to wellbeing - how safe and connected people feel. Research²⁰ in 2007 found that:

- People living in clean places felt safer, used more leisure facilities in the area, had friends more likely to visit and had a better quality of life all round.
- People are more likely to feel unsafe, real or not, in littered areas.
- Littered areas attract graffiti, bill posting, antisocial behaviour and crime.

The NSW focus groups in 2011²¹ also reinforced this finding (Figure 9). The nature of the place – whether it's more natural or more urbanised can also affect how much it's littered.



Figure 9

Endnotes

- 1 Price Waterhouse Coopers: Packaging Cost Benefit Analysis report P 6-7
- 2 Clean Up Australia cigarette brochure April 2009 Clean Up Australia
- 3 'The Industry' Ref: British American Tobacco Australia 2001
- 4 Op Cit Clean Up Australia
- 5 Cited in NSW State of the Beaches Reports, Office of Environment & Heritage 2007 and 2009
- 6 State of the Beaches 2011–2012. Beachwatch, Harbourwatch and partnership programs. Office of Environment and Heritage, Sydney NSW. October 2012.
- 7 Aust Companion Animals Council: Contribution of the Pet Care Industry to the Australian Economy. 7th edition 2009
- 8 Pooches for the planet <http://www.tbep.org/help/pooches/faqs.html>
- 9 Ibid
- 10 National Litter Index 2011–12, Keep Australia Beautiful, July 2012
- 11 Op Cit 'The Industry' Ref: British American Tobacco Australia 2001
- 12 Clean Up Australia Day 2012 Rubbish Report, National <http://www.cleanup.org.au/files/national-final.pdf>
- 13 Clean Up Australia Day 2012 Rubbish Report , NSW <http://www.cleanup.org.au/files/nsw-final.pdf>)
- 14 NSWFB Annual Statistical Report 2006/07 <http://www.fire.nsw.gov.au/page.php?id=171>
- 15 Conducted for Office of Environment and Heritage by The Leading Edge. Contact OEH for details
- 16 Victorian Litter Action Alliance Litter Prevention Program kit P 8 2011
- 17 Research and analysis by Rob Curnow Community Change www.communitychange.com.au
- 18 Op cit Conducted for Office of Environment and Heritage by The Leading Edge.
- 19 Littering Strategy 2011–2016 Research , Prepared for Office of Environment and Heritage by IPSOS, Final Report, May 2012
- 20 Op cit Rob Curnow, Community Change
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