



# Illegal dumping research report summary

Report prepared for the NSW Environment Protection Authority (EPA)

July 2020

**Project Contact:** Stuart Clark

Jessica Elgood

Florence Le Guyader Olivia McDonald

Contact address: Level 2, 51 Berry St

NORTH SYDNEY NSW 2060

Office phone: (02) 9900 5100

Email: <a href="mailto:stuart.clark@ipsos.com">stuart.clark@ipsos.com</a>

florence.leguyader@ipsos.com

**Ipsos project:** 19-041957-01

This research was conducted in accordance with AS20252 and ISO 9001:2015.



# Table of contents

Introduction	4
Key findings	4
Detailed findings	5
Recommendations	19
Appendix: Table of waste types disposed of by location (2014 and 2019)	22



## Introduction

## Background and objectives

This report presents a summary of the second round of NSW illegal dumping research, undertaken in 2019. The first wave was completed in 2014.

This research provides a benchmark for monitoring changes in attitudes, behaviours and experiences relating to illegal dumping. The overriding objective of the 2019 research was to update the 2014 study and explore changes over time.

## Methodology

The methodology for the 2019 research was designed to replicate that of the 2014 study, with a reduced number of stakeholder in-depth interviews and more community focus groups. The fieldwork consisted of the components shown in the table below, undertaken in NSW only.

Research component	2014	2019
Qualitative in-depth-interviews with stakeholders	n=44 participant	n=16 participants
Focus groups with residents	2	4
Online survey of councils	n=64 participants	n=42 participants
Online survey of residents	n=1009 participants	n=1000 participants
Online survey of businesses	n=100 participants	n=100 participants

# **Key findings**

The key findings of the research are outlined below.

#### **Behaviour**

- Overall, the behavioural landscape in relation to illegal dumping in NSW is similar in 2019 to 2014.
- Measures taken to reduce illegal dumping in the past five years appear to be having a positive, but limited, impact.
- Types of waste and disposal locations reported by both residents and businesses in the online survey have fallen significantly since 2014. This may reflect an actual change in dumping behaviour, social acceptability biases or other factors are impacting self-reporting or a change in the way participants interacted with the questionnaire.



- While those over the age of 40 remain the largest group who admit to kerbside dumping, those under the age of 40 are more likely to have undertaken kerbside dumping in 2019 than in 2014.
- Dumping of asbestos appears to have decreased.

#### Motivation

- Among residents, the profile of enforcement activities has increased, with the result of increasing concern around being caught and fined for dumping.
- Among businesses, the profile of enforcement activities has increased but perceived costs of fines have dropped.

#### Social opportunity

• The perceived acceptability of kerbside dumping has increased slightly among residents since 2014.

#### **Physical opportunity**

• Awareness and use of council kerbside collections for bulky waste have increased since 2014.

# **Detailed findings**

## Experiences and perceptions of LGAs and other land managers

This section outlines important findings from the research with Councils and land managers.

## Perceptions of the extent of illegal dumping among councils and land managers

The qualitative and quantitative research indicate that illegal dumping remains a significant issue for councils and land managers in NSW.

However, the findings show the extent of illegal dumping has decreased in some local government areas. The proportion of councils that consider illegal dumping a *minor problem* has increased from 17% in 2014 to 31% in 2019, indicating that some councils have seen reductions in dumping in their areas.

This aligns with the findings of qualitative interviews with land managers (i.e. councils and other government land managers). Many indicated that targeted campaigns run in dumping hotspots, often with the support of the EPA, have been effective in reducing local dumping rates. Some noted that the impacts of such programs are limited to the periods during which they run, and don't have a lasting impact on behaviour.

Despite the positive steps reported by some councils, illegal dumping still presents a challenge in many LGAs. The proportion considering illegal dumping a *major problem* is consistent with the first round of the study at 19% in 2019 (compared to 22% in 2014). In addition to this, the proportion indicating that dumping is not a problem at all has fallen from 2% to 0% in 2019.



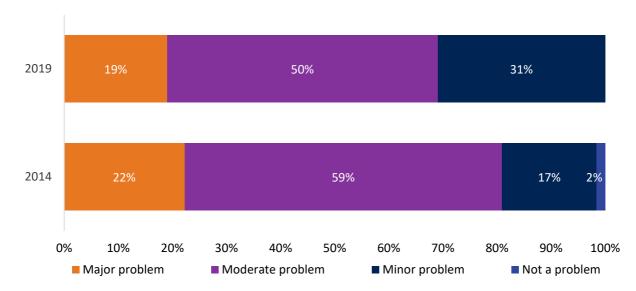


Figure 1. Extent of the problem of illegal dumping

Base: Total LGA sample | 2019 LGA sample (n=42), 2014 LGA sample (n=63) Q4. To what extent is illegal dumping a problem in your council area? Illegal dumping

Overall, the findings of the survey of LGA managers shows that the pattern of dumping has not changed in the past five years. The types and locations of dumped materials the managers deal with is very consistent with 2014.

#### Asbestos dumping has been reduced since 2014

The one area that stands out for its improvement over time is asbestos. One in five LGA managers (19%) indicate that there has been a reduction in asbestos dumping in the past five years (compared to just 6% in 2014). In addition to this, 33% of councils now report that asbestos dumping is typical on roadsides in their area, compared to 59% in 2014.

#### Costs associated with illegal dumping

As in 2014, council managers (as well as other land managers) identified the cost and effort invested in cleaning up, monitoring and preventing illegal dumping as the most significant impact of illegal dumping to them.

Both councils and other land managers expressed concerns about their reliance on grants and external funding to maintain clean-up budgets. Many indicated that their organisations' budgets are not large enough to properly address the extent of dumping it areas they are responsible for. The responsibility for funding clean-up on private land can be a challenge to negotiate. Private land managers are, at times, reticent to spend money on rectifying dumping as it takes funds directly from budget allocated to other amenities. Some stated that, while they bear the financial cost of illegal dumping on their properties, they see dumping as a public issue and feel that LGAs should pay for clean-up.

Also consistent with 2014, the reported cost of managing illegal dumping for LGAs varied widely. The reported total cost of illegal dumping per year ranged from less than \$20,000 to more than \$750,000.



#### Initiatives and strategies undertaken to reduce illegal dumping

Survey findings show upwards trends in the use of most interventions by councils to reduce illegal dumping compared to 2014. The use of signage has increased significantly.

88% Signage 67% Fines / enforcement 76% Patrolling / surveillance 69% Community education and awareness raising 67% 64% Community events e.g. free tip days, household chemical clean-outs 68% 2019 Opening of a Community Recycling Centre (CRC) Not asked in 2014 2014 50% Limiting access e.g. with gates, fences, bollards 48% Joint campaigns with the EPA Changes to council waste disposal services 40% 60% 80% 100%

Figure 2: Initiatives and strategies undertaken by councils to reduce illegal dumping

Base: Total LGA sample | 2019 LGA sample (n=42), 2014 LGA sample (n=63)

Q21: What initiatives or strategies, if any, has your council used to reduce illegal dumping and/or illegal landfilling?

Note: Types of documentation ranked in descending order based on 2019 results. Opening of a Community Recycling Centre (CRC) is a new code added in 2019, was not asked in 2014.

Overall, patrolling and surveillance, and changes to council waste services were perceived as the most effective strategies to combat illegal dumping with a large majority of LGAs indicating these are somewhat or very effective (94% and 93% respectively).

## Community and industry findings

This section outlines important findings from the research with residents and businesses.

#### Behavioural trends over time

#### Who is dumping waste?

Demographics of residents who admit to disposing of items illegally are broadly similar to 2014. While deliberate dumpers come from a range of backgrounds, they are most likely to be male and in the 18-29 age group. Indeed, those under 30 are more likely in 2019 to report deliberate dumping than in 2014.

A key change since 2014 is that those aged under 40 are more likely to indicate they have undertaken kerbside dumping. In addition to this, younger age groups (18-29 years old) tend to indicate lower levels of awareness of legitimate means of disposal and are less likely to correctly identify dumping behaviours as illegal compared to those aged 50 and above.



Those aged 40-59 are still the most likely age group to undertake kerbside dumping.

2019 2014 49% 47% Male 53% 53% 60% Gender 51% 47% 40% 53% Female 47% 18% 16% 18-29 years 18% 10% 34% 48% 18% 17% 14% 29% 30-39 years Age 40% 37% 22% 40-59 years 33% 20% 29% 27% 39% 60+ years 15% 9% 38% 34% 56% 40% Employed full time 38% 51% 15% 21% 17% Employed part time 18% 18% 24% 27% 7% 23% 22% Occupation Retired or pensioner Non-dumpers 10% 13% 8% 7% Kerbside dumpers Home duties 4% ■ Deliberate dumpers 3% 2% 7% 3% TAFE or university student 4% 5% 5% 1% Unemployed 50% 0% 10% 20% 30% 40% 60% 70%

Figure 3. Demographics by dumper profile - Community

Base: 2019 | Non-dumper (n=759), Kerbside dumper (n=154), Deliberate dumper (n=87). 2014 | Non-dumper (n=621), Kerbside dumper (n=231), Deliberate dumper (n=157).

SQ1 Are you...?

SQ2 What is your approximate age?

Q18 Which of the following best describes you?

#### How residents are disposing of waste

Types and locations of waste dumping reported by both residents and businesses in the online survey have reduced significantly since 2014. This may be a reflection of an actual change in dumping behaviour or in the way participant interacted with the questionnaire (for example, greater reticence to admit to dumping behaviours). As such, the response options provided for this question changed in 2019 to include more disposal locations (e.g. chemical clean-out day, recycling drop-off point).

Among residents, self-reported rates of illegal disposal are down significantly in all locations (see Figure 4). However, reporting of legitimate disposal methods has also decreased. Compared to 2014, the reported level of illegal dumping has also decreased for most types of waste.



Weekly/fortnightly council kerbside collection of general waste and recycling Left at charity bins/shops Council kerbside collection of large or bulky items Community Recycling Centre (CRC) Not asked in 2014 Called/Contacted your local council to collect it Disposed of at a landfill or tip 2019 Paid a waste removal service ■ 2014 Disposed of on your own land Chemical clean-out day Recycling drop-off point Sold it/gave it away Not asked in Composting & permaculture 2014 Taken to recycler

Figure 4: Disposal location - community

Base: Total Community sample | 2019 Community sample (n=1,000), 2014 Community sample (n=1,009) Q4 And which of the following methods have you used to dispose of each of these things in the last 12 months? Note: Responses have been re-coded for location. Dumping locations ranked in descending order based on 2019 results.

Donated to charity
Disposal bin/centre point

Disposed of on public land

Placed on side of road elsewhere Disposed of on someone else's land

Placed on the kerb outside your house/building

Overall, there is a positive trend of residents using correct disposal methods in 2019, compared to 2014. For example, hazardous waste illegally disposed of in weekly/fortnightly collection has declined from 21% in 2014 to 12% in 2019.

20%

40%

60%

- Encouragingly, illegal dumping of several waste types appears to have decreased.
- For majority of waste types, taking items to landfill has declined. While 33% of residents still disposed of construction and demolition waste at landfill in 2019, this is a significant decline from 48% in 2014.
- Weekly/fortnightly collection is most commonly used for general waste (82%), household recyclables (76%) and garden waste (74%). Compared to 2014, significantly less people are putting these items into bulky waste collections.
- Similar to 2014, almost half of the respondents dispose of furniture and white goods using the bulky waste collection service in 2019 (47% compared to 51% in 2014).
- Leaving old clothing and bedding at charity stores and bins has significantly declined (67% compared to 76% in 2014). However, significantly more residents (22%) are using their weekly/fortnightly collection for these items compared to 2014 (16%).
- Whilst not asked in 2014, Community Recycling Centres are being utilised as a disposal option with 18% of residents taking hazardous chemicals, 17% taking car parts and 11% taking household recyclables.



Illegal methods of disposal

80%

100%

Self-reporting of illegal disposal has trended down among businesses, although not significantly. However, reported rates of disposal via legitimate channels have dropped significantly.

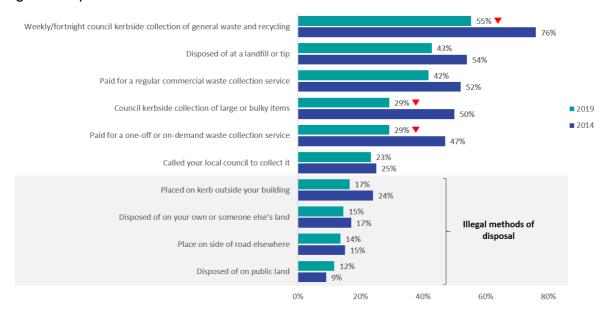


Figure 5: Disposal location - businesses

Base: Total Industry sample | 2019 Industry sample (n=103), 2014 Industry sample (n=100) Q5 And which of the following methods have you used to dispose of waste from your business in the last 12 months? Note: Responses ranked in descending order based on 2019 results.

Self-reporting of all waste disposal behaviours is down among residents in 2019. It is therefore likely that there are other factors influencing self-reporting of dumping behaviour.

Reduced self-reporting of dumping behaviours may indicate that these audiences are now more self-conscious about them, and therefore less willing to admit to disposing of materials via illegal methods. Evidence supporting this hypothesis is mixed. Awareness of illegality has not changed since 2014, although the perceived likelihood of being caught dumping has increased. Improved disposal services may also have influenced these changes.

Alternatively, this reduction may be due to lower engagement in the survey process by participants in 2019, or to changes in survey mode with more participants completing the survey via mobile phone. The fact that rates of legitimate disposal reported have also reduced indicates that survey engagement or mode may be have influenced responses. For residents in particular, the addition of six new categories in the response frame may have impacted responses.

### Motivations and barriers for illegal dumping behaviour

As we would expect, the overall context, barriers and motivations for illegal dumping behaviour remain very similar in 2019 to those observed in 2014.

- Capability
  - Awareness of legal disposal methods is high. Lack of correct waste disposal knowledge is <u>not</u> a driver of illegal dumping.



- Residents and businesses understand that dumping behaviours are illegal
- Opportunity
  - Social norms play an important role in influencing waste disposal behaviour.
    - Both the quantitative and qualitative phases indicated that perceived social acceptability of dumping behaviours is very similar to 2014.
  - The distance to waste disposal facilities may contribute to decisions to dump illegally
- Motivation
  - Cost avoidance is a key driver for businesses to dump illegally
  - Low awareness or consideration of the consequences of dumping illegally was a factor

Important changes observed are summarised below, with details in the following sections.

#### Community:

- Concerns about being caught and/or fined have increased among residents
- Bulky waste collection services are becoming more ubiquitous, with trips to the tip continuing to decrease
- The acceptability of kerbside dumping has increased slightly
- Awareness of illegal dumping by other people in certain locations has increased
- Perceived travel time to the tip has increased

#### **Businesses:**

- Perceptions of the likelihood of being caught and/or fined have trended up (i.e. increased but not to a statistically significant degree) among businesses
- The perceived acceptability of dumping behaviours appears to have increased among businesses, along with a drop in the recognition of dumping behaviours as illegal.



#### Community

#### Concerns about being caught and/or fined have increased among residents

The clearest area of improvement over the past five years among residents is in the profile of illegal dumping enforcement.

Higher proportions of residents believe that it is *probable*, *almost sure* or *certain* that they would be caught and fined across a range of locations in 2019.

No chance 14%**V** In a state forest, 2019 In a state forest, 2014 14% 20% Next to charity clothing bins, 2019 13%**V** 16% 16% Next to charity clothing bins, 2014 20% 12% On the side of a highway or road, 2019 12%**V** 9%▼ 6% 18% 12% On the side of a highway or road, 2014 19% 7% In a local park, 2019 11%**V** 6% 11% In a local park, 2014 19% 6% 13% On a street near your home, 2019 12%**▼** 5% 10% 15% 20% On a street near your home, 2014 19% 7% 0% 20% 40% 60% 80% 100% ■ Very slight possibility (1 in 10) ■ Don't know ■ No chance, almost no chance (1 in 100) ■ Some possibility (3 in 10) ■ Fairly good possibility (5 in 10) ■ Probable (7 in 10) ■ Almost sure (9 in 10) Certain, practically certain (99 in 100)

Figure 6: Perceived chance of being caught and fined

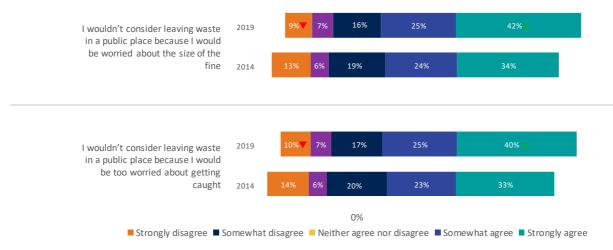
Base: Total Community sample | 2019 Community sample (n=1,000), 2014 Community sample (n=1,009) Q17 How likely do you think it is that you would be caught and fined if you were leaving waste in the following locations?

The knock-on effect of this is that 40% of residents *strongly agree* that they are concerned about being caught and fined and would therefore choose not to leave waste in a public place (compared to 33% in 2014).

The improvement has also flowed through to concern about the size of the fine, which is also a more of a deterrent to dumping in 2019. Four in ten (42%) *strongly agree* that they wouldn't consider leaving waste in a public place due to the size of the fine, compared to 34% in 2014.



Figure 7: Agreement with statements relating to the consequences of illegal dumping



Base: Total Community sample | 2019 Community sample (n=1,000), 2014 Community sample (n=1,009) Q14 For each of the following statements, please indicate whether you strongly agree, tend to agree, neither agree nor disagree, tend to disagree or strongly disagree

Perceptions of the value of fines for dumping most materials have not changed since 2014. However, 23% now believe that the fine for dumping construction and demolition waste is over \$5000, compared to 16% in 2014. This aligns with an actual increase in the value of fines in late 2014.

# Bulky waste collection services are becoming more ubiquitous, with trips to the tip continuing to fall

Efforts by councils to provide easy-to-access waste services are being reflected in changes in awareness and behaviour among residents.

While awareness of regular council bulky waste collections remains steady (59% compared to 62% in 2014), awareness among non-users has increased (23% compared to 17% in 2014). Use of bulky waste collections which can be ordered from the council is up, however (57% compared to 46%).

In line with this, the proportion of residents making trips to the tip has fallen from 39% in 2014 to 14% in 2019. This continues an anecdotal trend identified in the 2014 qualitative research.

Residents who have been living in their home for less than a year are more likely to be unaware of council kerbside collections for bulky items and collection or drop-off services for chemicals in their area. They are also less likely to be aware of the frequency of council collections (45% compared to 66% overall).

#### Kerbside dumping is slightly less unacceptable

Overall, kerbside dumping is seen as slightly less unacceptable by some residents now than it was five years ago.

Well under two-thirds (61%) now judge leaving household waste at the kerbside outside the home as *very unacceptable*, compared to 68% in 2014. Higher proportions now rate it as merely *unacceptable* (20%, up from 16%) or *somewhat unacceptable* (9%, up from 6%). A similar pattern emerges in relation to leaving furniture at the kerbside. Just 17% judge it to be *very unacceptable*, compared 25% in 2014.



At the other end of the acceptability spectrum, the small proportions of residents who rate kerbside dumping behaviours as *very acceptable* have dropped in 2019. Leaving furniture on the kerbside is now seen as very acceptable by 2% of residents; down from 6% in 2014. This indicates that progress is being made among those who previously felt that the kerbside was an entirely legitimate location to dispose of unwanted items.

Younger residents (aged 18-29), CALD residents and those defined as deliberate dumpers (i.e. those dumping at locations other than the kerbside) are less likely than other audiences to feel that deliberate and kerbside dumping of a range of materials are unacceptable (between 50% and 70%).

Interestingly, non-dumpers and kerbside dumpers tend to say that their family, friends, neighbours and colleagues have less influence on their household waste disposal decisions in 2019 than in 2014.

#### Awareness of illegal dumping by others

Most residents are aware of illegal dumping on the kerbside outside their building (trending up compared to 2014). Non-dumpers and kerbside dumpers are also more likely to say they have seen or heard of items deliberately dumped on someone's land, public land or on the side of the road than in 2014.

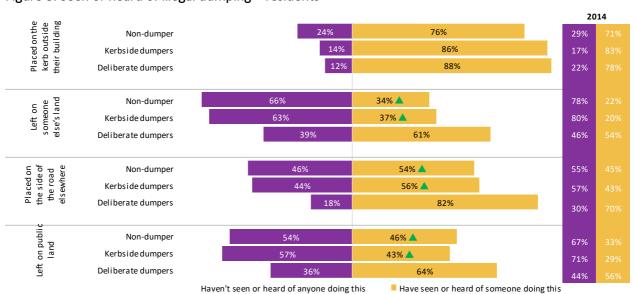


Figure 8: Seen or heard of illegal dumping – residents

Base: 2019 non-dumper (n=759), 2019 kerbside dumper (n=154), 2019 deliberate dumper (n=87) Q8 Have you seen or heard of items or materials being disposed of in the following ways by your family, friends, neighbours, colleagues or others?

#### Perceived travel time to the tip

Perceptions of travel time to the nearest tip appears to have increased, with more participants indicating that it takes 31 minutes to an hour in 2019 (20% compared to 16% in 2014).

No significant changes are observed in perceptions of the ease of getting to the nearest tip, but there is a non-significant increase (from 24% to 28%) in the proportion of participants who indicate that they the tip location is a reason for difficulty taking waste there.



#### **Demographic differences**

A range of differences were observed between demographic groups in the residents survey. A summary of findings for groups where consistent differences exist across a range of measures are shown below.

#### Younger age groups (18-29 years old)

As noted above, younger people (those aged 18-29) display a range of behaviours and attitudes that stand out from older groups which make them more prone to dumping, including:

- Being more likely to be deliberate dumpers than those in other age groups (48%)
- Indicating lower levels of awareness of waste disposal services compared older age groups (50-59 and 60+ years old)
- Being more likely to identify dumping behaviours as legal compared to older age groups (50-59 and 60+ years old)

#### In addition to this:

- Younger age groups (18-29) were less likely to find leaving household waste in a bushland 'very unacceptable' (53%) compared to all other older age groups;
- Younger age groups (18-29) were less likely to find leaving household waste in a park 'very unacceptable' (56%) compared to all other older age groups;
- Younger age groups (18-29) were more likely to find leaving furniture on the kerb outside of their home 'somewhat acceptable' (25%) than 50-59 years old (13%) and 60+ years old (11%);
- Younger age groups (18-29 years old) were less likely than older age groups (50-59 and 60+ years old) to be aware of what the legal behaviours are:
  - Leaving household waste on the side of the road (11% incorrectly thought this is legal);
  - Leaving household waste in a park (7% incorrectly thought this is legal);
  - Leaving garden waste in a park (8% incorrectly thought this is legal and 18% don't know).
- Younger age groups (18-29 years old) were more likely than older age groups (50-59 and 60+ years old) to agree (19% tend to agree); that they would consider leaving certain types of waste in a public place, but only if I knew that it wouldn't damage the environment
- I would consider leaving waste in a public place because of the cost of taking it to the tip
  - Younger age groups (18-29 years old) were not as strongly opposed to this idea as older age groups (60+ years old) with 27% of younger respondents who 'tend to disagree' compared to 10% among older respondents. While older respondents were more likely to 'strongly disagreed' than younger respondents (83% and 41% respectively);
- Younger age groups (18-29 years old) tend to indicate lower levels of awareness compared to older age groups (50-59 and 60+ years old).

#### Those living in their home less than a year

• Residents who have been living in their home for less than a year were more likely to be 'unaware of this service in their area' including:



- Regular council collection of large or bulky items from the kerb (21%);
- Council collection of large or bulky items from the kerb which you can ring up to order (22%);
- Collection or drop off service for chemicals (47%).
- Respondents who had been living in their house for less than a year were less likely to be aware of the frequency of council bulky waste collections (45%);

#### Culturally and linguistically diverse (CALD) audiences vs English-only households

- Respondents who mainly speak English at home were more likely to find leaving household waste in a bushland 'very unacceptable' (80%) than those who speak another language (61%);
- Respondents who mainly speak a language other than English at home were less likely to find leaving household waste in a park 'very unacceptable' (63%) than those who speak English (77%);
- Respondents who mainly speak a language other than English at home were less likely to find leaving garden waste in a park 'very unacceptable' (53%) than those who mainly speak English (66%);
- Respondents who mainly spoke a language other than English at home were less likely to find leaving household waste on the side of the road 'very unacceptable' (52%) than those who mainly speak English (63%);
- Respondents who mainly speak English at home were more likely to find leaving furniture on the kerb outside of their home 'acceptable' (12%) than those who speak a language other than English at home (7%);
- Respondents who speak a language other than English at home were more likely than others to agree (14% tend to agree); that they would consider leaving certain types of waste in a public place, but only if I knew that it wouldn't damage the environment

#### Regional vs metro residents

- Regional residents were more likely to find leaving garden waste in a park 'very unacceptable' (70%) than metro residents (59%);
- 30% of metro residents are unaware of this service (landfills) compared to 11% in regional.
- Regional residents were more likely than metro residents to misunderstand that leaving furniture on the kerb outside their home is legal (36% and 25% respectively)
- Metro residents were more likely than regional residents to agree (11% tend to agree) that they would consider leaving certain types of waste in a public place, but only if I knew that it wouldn't damage the environment
- Regional residents were more likely to indicate cost as being the reason why they find taking waste to the tip difficult (21% compared to 10% for metro residents).

#### Renters

• Renters were more likely than homeowners to find it 'fairly difficult' (25% and 16% respectively) to get to the tip.

#### Businesses

Perceptions of the likelihood of being caught and/or fined have trended up among businesses



Across all locations tested (state forests, next to charity bins, on the side of a highway or road, in a park or on the kerb near the home), perceptions of the likelihood of being caught and fined for dumping have trended upwards (although not significantly – see Figure 9).



Figure 9: Perception of the chance of being caught and fined - Industry

Base: Total Industry sample | 2019 Industry sample (n=103), 2014 Industry sample (n=100) Q16 How likely do you think it is that you would be caught and fined if you were leaving waste in the following locations? Note: Responses 2% and below not shown for ease of reading.

However, unlike among residents, these changes have not translated into a lower likelihood to dump due to perceptions of the consequences.

In a second point of difference compared to residents, higher proportions of businesses say that they don't know the values of fines for dumping asbestos (27% up from 14% in 2014), hazardous chemicals (32% up from 15%), construction and demolition waste (32% up from 19%) and garden waste (39% up from 23%).

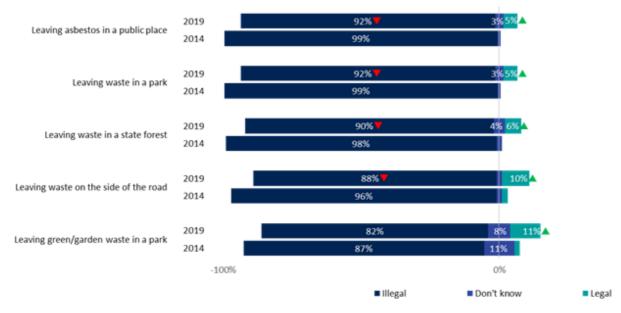
#### Perceptions of legality and acceptability of dumping

The perceived acceptability of dumping behaviours appears to have increased among businesses, along with a drop in the recognition of dumping behaviours as illegal.

While most businesses correctly identified illegal behaviours, the proportion identifying each scenario presented as illegal has declined (Figure 10).



Figure 10: Perceptions of legality of dumping behaviours - industry

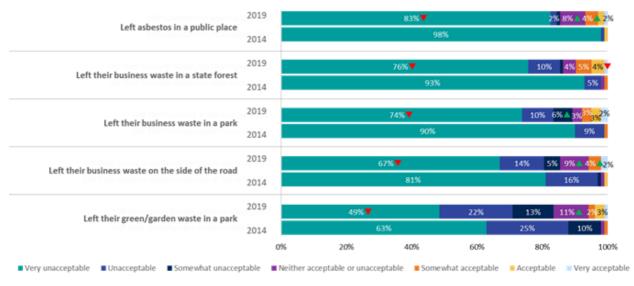


Base: Total Industry sample | 2019 Industry sample (n=103), 2014 Industry sample (n=100) Q14 Please indicate whether you think the following are legal or illegal

Note: Responses 2% and below not shown for ease of reading.

Businesses interviewed in 2019 were also more accepting of dumping behaviours. Fewer respondents reported that leaving asbestos in a public place is 'very unacceptable' (83% in 2019, down from 98%). Similar reported increases are seen across other dumping scenarios (Figure 11).

Figure 11: Social acceptability of dumping behaviours - industry



Base: Total Industry sample | 2019 Industry sample (n=103), 2014 Industry sample (n=100) Q9 How would you judge another person or their business's behaviour if they...

Note: Responses 2% and below not shown for ease of reading. Reasons ranked in descending order based on 2019 results for 'Very unacceptable'.



# Recommendations

The table below outlines the important findings of the research and recommendations aligned with each.

COM-B domai	B domain #		-B domain #		B domain # Audience Finding overview Recommendation				Recommendation
Behaviours	Behaviours	1	Land managers and LGAs	According to council managers, the patterns of dumping are broadly similar to 2014. The locations and types of materials disposed of are very consistent.	The strategic priorities in relation to targeting specific types of dumping are still relevant, and do not need to be substantially reviewed based on changes in the types and locations of waste dumped.				
	Behaviours	2	Residents	The demographics of residents who admit to disposing of items illegally are broadly the same as in 2014.	Strategies currently in place to target those most likely to dump illegally should be retained or improved.				
Behaviours	Behaviours	3	Residents	While those over the age of 40 remain the largest group that admits to kerbside dumping, those under the age of 40 report are more likely to have undertaken kerbside dumping in 2019 than in 2014.	Strategies that target a range of age groups are required to address high levels of kerbside dumping behaviour among older residents and growing levels among those under 40.  Tackling the growing levels of kerbside dumping among the younger age cohort will be important to ensuring the social norms around kerbside dumping do not become further established in coming years.				
	Behaviours	4	Younger residents	Younger people (aged 18 to 29) are more likely than others to be deliberate dumpers. They have less knowledge of correct disposal methods and the illegal status of dumping behaviours.	The EPA may wish to consider targeting younger people to improve their knowledge of correct disposal behaviours and understanding of which actions constitute illegal dumping.				
	Behaviours - types of waste dumped	5	Land managers and LGAs	Councils report that dumping of asbestos on roadsides has decreased.	Continue to implement existing programs aimed at reducing dumping of asbestos.				
	Behaviours and interventions	6	Land managers and LGAs	According to stakeholders, targeted campaigns by the councils and the EPA appear to be having a positive impact on dumping in some places.  However, a few participants noted that these results are only maintained while the program is ongoing, and that they may not be sustained when activities cease.	The EPA should continue to support the use of interventions to reduce dumping behaviours.  Dumping program evaluations should include measures which assess the longevity of positive impacts.				

COM-B domain		#	Audience	Finding overview	Recommendation
Motivation	Motivation - perceptions of enforcement	7	Residents	The profile of illegal dumping enforcement appears to have increased, and more resident indicate that concern about being caught and fined is a reason that they would choose not to leave waste in a public place.  The perceived value of fines has also increased since 2014 (in line with increased penalty amounts).	Continue to raise the profile of enforcement activity and the size of fines in relation to illegal dumping.
	Motivation - perceptions of enforcement	8	Businesses	Businesses' perceptions of the likelihood of being caught and fined for dumping have trended upwards.  However, unlike for residents, these changes have not translated to lower likelihoods to dump due to perceptions of the consequences.	Intensified efforts may be required to raise the profile of enforcement activity and the size of fines in relation to illegal dumping among businesses.
	Motivation - perceptions of enforcement	9	Businesses	Among businesses, the perceived value of fines has decreased, and a significantly higher proportion of businesses indicate that they don't know what the maximum fine value is.	Intensified efforts may be required to raise the profile of enforcement activity and the size of fines in relation to illegal dumping among businesses.
Opportunity	Opportunity - social	10	Residents	Overall, kerbside dumping is seen as slightly more acceptable by residents now than it was five years ago.  Younger residents (aged 18-29), CALD residents and deliberate dumpers are least likely to feel that deliberate and kerbside dumping of a range of materials are unacceptable.	More widespread and effective interventions targeting changing norms and demographics around kerbside dumping should be assessed and piloted.
	Opportunity - physical	11	Residents	Awareness and use of Council kerbside collections for bulky waste have increased since 2014. While reported use of these services has dropped, this may not reflect actual changes in use.	It is possible that higher awareness of council kerbside collection services and clean ups of kerbside dumping by councils continue to influence the growing social acceptability of leaving items at the kerbside.  Continued use of effective interventions for changing norms around kerbside dumping should be considered by the EPA and councils.
					Considered by the LFA and Councils.

COM-B domain	n	#	Audience	Finding overview	Recommendation
	Opportunity - social	# Audience  12 Businesses  13 Land managers and councils		The perceived acceptability of dumping behaviours appears to have increased among businesses, along with a drop in the recognition of dumping behaviours as illegal.	Intensified efforts may be required to raise the profile of enforcement activity and the size of fines in relation to illegal dumping among businesses.
Interventions	Cost of dumping	13	Land managers and councils	Many land managers stated that their organisations' budgets are not large enough to properly address the extent of dumping it areas they are responsible for.  Public land managers indicated that they do their best with what they have. However, Councils sometimes have to use threats of enforcement to encourage clean-up activities due to the lack of resourcing.	Continued support and resourcing should be provided to land holders to help discourage dumping on their land.  The EPA may also wish to assess the viability of providing targeted assistance to land managers with extensive dumping on their land.

# Appendix: Table of waste types disposed of by location (2014 and 2019)

		General waste		Household recyclables		Furniture/ White goods		Old clothing/ Bedding		Hazardous chemicals		Construction/ Demolition		Garden waste		Car parts	
		2019	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019	2014
	Weekly/fortnightly council kerbside collection of general waste and recycling	82%	82%	76%	75%	11%	11%	22%▲	16%	12%▼	21%	11%	15%	74%	70%	17%	14%
	Left at charity bins/shops	5%	5%	8%▼	13%	1%	0%	67%▼	76%	3%	3%	5%	5%	3%	2%	6%	6%
	Council kerbside collection of large or bulky items	11% <b>V</b>	16%	10%▼	19%	47%	51%	9%	9%	9%	14%	21%	25%	9%▼	13%	22%	30%
	Community Recycling Centre (CRC)	4%▲	0%	11%▲	0%	7%▲	0%	9%▲	0%	18%▲	0%	7%▲	0%	4%▲	0%	17%▲	0%
	Called/Contacted your local council to collect it	4%▼	9%	5%▼	8%	23%	27%	7%	6%	10%▼	19%	16%	12%	5%	7%	8%▼	24%
	Disposed of at a landfill or tip	6%▼	13%	5%▼	8%	12%▼	19%	5%	7%	13%▼	29%	33%▼	48%	8%▼	18%	23%	37%
	Paid a waste removal service	3%	5%	2%▼	4%	7%	6%	3%	4%	5%▼	11%	29%	22%	3%	4%	15%	19%
,	Disposed of on your own land	3%▼	6%	3%	4%	3%	4%	2%	2%	2%	4%	5%▲	6%	10%▼	18%	3%	4%
	Chemical clean-out day	2%▲	0%	1%▲	0%	1%▲	0%	1%▲	0%	47%▲	0%	5%	0%	1%▲	0%	2%	0%
.≘	Recycling drop-off point	0%	0%	1%▲	0%	1%	0%	0%	0%	3%▲	0%	1%	0%	0%	0%	2%	0%
ed .4	Sold it/gave it away	0%	0%	0%	0%	3%▲	0%	1%▲	0%	0%	0%	0%	0%	0%	0%	0%	0%
201 201	Composting & permaculture	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%▲	0%	0%	0%
Not askedin 2014	Taken to recycler	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
	Donated to charity	0%	0%	0%	0%	13%▼	20%	1%▲	0%	0%	0%	0%	0%	0%	0%	0%	0%
<del>,</del>	Disposal bin/centre point	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
methods of isposal	Placed on the kerb outside your house/building	8%▼	17%	6%▼	16%	15%▼	27%	7%	6%	6%	4%	11%	18%	8%▼	16%	6%▼	17%
sthc osa	Disposed of on public land	0%▼	4%	0%▼	2%	1%▼	3%	0%	1%	1%▼	7%	1%	6%	0%▼	2%	1%	4%
al methoo disposal	Placed on side of road elsewhere	1%▼	4%	1%▼	2%	3%	4%	1%	2%	3%	6%	2%▼	8%	1%▼	2%	6%	5%
llegal di	Disposed of on someone else's land	1%▼	3%	1%	1%	1%▼	3%	1%	2%	2%	4%	3%	6%	1%	2%	3%	4%

Base: Total Community sample | 2019 Community sample (n=1,000), 2014 Community sample (n=1,009)

Q4 And which of the following methods have you used to dispose of each of these things in the last 12 months?

Note: Responses have been re-coded for location. Dumping locations ranked in descending order based on 2019 results.

▲ significantly higher than 2014 at 95% C.I.

▼ significantly lower than 2014 at 95% C.I.