Kerbside dumping qualitative research

Summary report

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Cleaning up and managing waste dumped at the kerbside consumes substantial amounts of local government resources. More than one in 10 (11%) of NSW local councils spend more than $500,000 a year combatting illegal dumping, with most of these (8%) spending over $750,000 a year.[1] To prevent this type of dumping, the NSW Environment Protection Authority (EPA) commissioned Ipsos Social Research Institute to identify what motivates kerbside dumping and how we can change this behaviour. Ipsos conducted qualitative research to help answer this question. That research involved:

- eight in-depth interviews with NSW council waste managers from urban and rural areas to determine the context of kerbside dumping and identify current interventions to address the issue
- seven group discussions with members of the general public in North Sydney (1), Parramatta (3) and Hurstville (3)
- eight interviews with property and strata managers to determine their current and potential roles as conduits of information.

This report summarises the findings and proposed interventions identified in this research.

How can we use this research to prevent kerbside dumping?

Table 1 below outlines the recommendations identified through this research.

Table 1: Recommendations from this research

Recommendation		Potential areas of action
1	Clarify what is acceptable when placing items on the kerbside.	**Councils need to decide what behaviours are acceptable when residents leave items at the kerbside during non-collection periods and/or without collection bookings. Areas that require clarification are:** • types of items that can be left beside the kerb • how long items can be left beside the kerb • how many times an item can be left beside the kerb before an alternative disposal method must be found • whether signage is necessary. **This information should be communicated clearly to residents.** • Refer directly to what is acceptable and what is not. • When dumping occurs, do not immediately remove the waste. Ensure it is clearly marked as illegal and under investigation so that residents see it.

[1] *Illegal Dumping Research Report*, NSW Environment Protection Authority, July 2015: http://www.epa.nsw.gov.au/resources/illegaldumping/150481-illegal-dumping-report.pdf

Recommendation		Potential areas of action
2	Offer residents alternatives to leaving items at the kerbside because they don't want them to go to landfill.	**Encourage the use of services such as Freecycle, Gumtree, eBay and charitable recyclers rather than leaving items at the kerbside for others to take.** • In particular, encourage residents to arrange free pick-up of reusable items before putting the items at the kerbside. • Consider requiring items to be labelled when left out for others to take, and require them to be brought in when they might be damaged (e.g. when it might rain). • Consider implementing a council service that connects donors to those needing items.
3	Increase residents' perceived likelihood of being fined for dumping.	**Ensure residents are aware of enforcement activities.** • Use tape and signage as widely and quickly as possible to identify dumped items. • Publicise prosecutions and fines for kerbside dumping as widely as possible.
4	Offer appropriate disposal services and waste infrastructure.	**Ensure access to collection services at the time the need arises.** • Provide the shortest possible lag time between booking a service and collection. Offer residents in unit blocks the option to book individual collections per unit, rather than per building. • Consider providing urgent collection services when items have to be disposed of within a short time frame (e.g. when a resident is moving house). • Ensure sufficient bins for general household waste and recycling are available.
5	Give residents the right information when they are open to messaging via third-parties.	**Provide information to tenants about waste disposal services at effective times (e.g. when they move in or when they provide notice to vacate).** • Including information on the time needed to book a collection and penalties for illegal dumping.
		Build partnerships with appropriate third parties to provide information. • Property managers are willing to providing information to tenants, as they are often responsible for managing dumped waste left by tenants. • Strata managers are far less motivated to provide waste information, as they are often not responsible for managing dumping when it occurs. • Consider providing information about waste disposal options when people buy new items (e.g. at IKEA or Fantastic Furniture). • Consider encouraging white goods retailers to promote collection services.
6	Improve residents' motivation to use legitimate waste disposal services.	**Develop communications strategies that improve residents' motivation to arrange council collection of waste items.**

Drivers of kerbside dumping

What is kerbside dumping?

Council and residents identified a number of different behaviours under the umbrella term of 'kerbside dumping'. Breaking down the problem of kerbside dumping into its component behaviours helps us understand the problem better and develop targeted interventions.

'Kerbside dumping' behaviours include:

- putting items at the kerbside for others to reuse
- leaving unwanted items at the kerbside when moving
- adding to existing piles of waste at the kerbside
- disposing of items in another council area during that council's collection time (e.g. adding to a family member's or friend's waste)
- putting items out early for a legitimate council collection
- putting out more items than are allowed for legitimate collection
- putting out items that cannot be accepted by a legitimate collection.

Why do residents put items beside the kerb?

Knowledge

- **Some residents are not aware that placing reusable items at the kerbside is illegal.** Most, however, are aware that placing waste that is not reusable and should go to landfill (e.g. bags of garbage) at the kerbside is illegal.
    - Some assume that putting reusable items out for others to take within a certain time frame is acceptable. These residents assume that council will not take action if the items are only out for a short time and if items that aren't taken are removed by the resident.
    - Some are aware that kerbside disposal is illegal, because they have seen waste piles taped off or labelled as under investigation.
- **Awareness of local waste disposal services is high.** Residents are either aware of the dates of their next collections (e.g. through council- or strata-supplied calendars) or know that they can contact council to find out. Residents are also aware that they can dispose of items at the tip, although they may not have used one recently.
    - However, there is limited awareness of the volume of waste allowed in council clean-ups. Some have become aware of limits because the waste has been spray painted or not taken away, or because they have received a warning letter.

- **Many residents are not aware that fines apply for kerbside disposal.**
    - Among those who are aware of the fines, there is a perception that they are small and unlikely to be issued.
- **Most residents don't know how much it costs council** to collect items left illegally at the kerbside; if they do know they are often not very concerned.
- **Residents are in the habit of putting items at the kerbside because councils provide waste collections.** Many residents don't think about other waste disposal options.
    - In local government areas (LGAs) where no kerbside bulky waste collection operates, council managers report that kerbside disposal of waste is not a major problem.
    - Taking waste to the tip is low on the list of options residents consider when deciding how to dispose of their waste.
    - Those who use the tip to dispose of household waste tend (anecdotally) to do so in the course of their work; for these people the tip ranks higher on the list of options considered.
- **Residents don't think they will be caught and fined for putting items at the kerbside.** This is especially true for residents of multi-unit dwellings, where dumping can be difficult to link directly to an individual or residence.
    - Most think that council investigations will not lead to regulatory action.
    - Illegal dumping in other locations, such as public areas or state forests, is seen as being taken more seriously by councils.
    - Stories about kerbside dumpers being fined are rarely seen in the media or heard about anecdotally.
- **There are few external cues motivating residents not to leave items at the kerbside**.
    - Because councils often don't take action against kerbside dumping, residents either assume it is legal or that councils will turn a blind eye.
    - Residents feel they won't be reported for putting items beside the kerb.

Social context

- **Putting items at the kerbside for others to reuse is viewed as being socially acceptable.** It is considered normal behaviour and is practised by many residents in areas where kerbside bulky collection services operate.
    - This acceptability does not include items that are clearly not reusable, such as bags of garbage.

  - Residents often feel they are being socially and environmentally responsible when, instead of sending items to landfill, they leave items at the kerbside so that others can reuse them.

- **Residents' behaviour is often driven by that of their neighbours.**
  - For example, when moving to a new neighbourhood, residents often look to neighbours for cues as to how to manage waste, rather than seeking official information.
  - Even when they have lived in a location for some time, residents may place items beside the kerb when others in their street have done so. Alternatively, items may be left on piles created by others in the expectation that the whole pile will be removed.

- **The social acceptability of kerbside disposal is reinforced** when items are taken away by the council or third parties without any communication that placing waste at the kerbside is unacceptable.

- **Residents don't want to report neighbours for kerbside disposal** for three reasons:
  - Most residents have disposed of items beside the kerb at some point, and it is seen as hypocritical to report behaviour that is socially acceptable.
  - There is a feeling that it is unneighbourly to report others to the authorities. When unacceptable behaviour is detected, residents are more likely to talk directly to their neighbours.
  - When told the size of fines, many residents felt they were unreasonably high and therefore would not report their neighbours.

Physical context

- **Putting items beside the kerb is convenient and requires no time commitment.** Many residents feel they do not have the time to arrange services or to sell or give away items.

- **Placing items beside the kerb is free.**

- **Some residents do not have storage space** in their homes or a communal waste room and therefore need to dispose of unwanted items at the time they are generated. Residents of unit blocks, particularly, struggle with this.

- **Often, scheduled or booked waste collection services do not cater to short time frames, such as when a resident is moving house**. Booked services have a waiting period, and scheduled services happen at intervals that may not match up to when a resident needs to dispose of waste.

- **Going to the tip is difficult for some residents who don't have access to a car, ute or trailer.** For these residents, it is much easier to leave items at the kerbside.

Detailed findings

Residents are aware of most waste services

The council perspective

The councils interviewed provided a range of bulky waste disposal services. Most provided either scheduled or booked kerbside collection services. Two councils provided tip vouchers rather than collection services for bulky items. Collection services differed in several respects, namely:

– how frequently they were offered

– the volume of waste allowed

– the waiting time between booking and collection

– how long before the collection the items were permitted to be placed at the kerbside.

Residents in group discussions demonstrated a high level of awareness of the waste disposal options available to them. Council services were particularly high on the list of options considered by residents. The options mentioned most often involved collection of items from their homes and included:

- council-run general waste and recycling collections
- council bulky waste collections (either scheduled or booked)
- leaving items beside the kerb
- selling or giving away items online through websites such as eBay or Gumtree.

A second tier of options included those used less often (such as the tip) and those seen as less socially acceptable (such as using neighbours' bins or public waste bins). Although there was a high level of awareness that transfer stations and landfills (generally referred to by participants as 'the tip') were available for their use, most respondents had not been to a tip for a number of years, if at all.

Norms of kerbside disposal are well established

The council perspective

In LGAs with scheduled or booked kerbside collections, managers generally reported that kerbside dumping accounted for a substantial proportion (sometimes the majority) of illegal dumping overall.

Managers at councils employing a tip voucher system reported a very different situation in their LGAs; kerbside dumping was not a major concern for them.

I wouldn't say it [kerbside dumping] is a huge problem. There are a couple of areas where people throw their rubbish, but they're usually at the end of dead-end streets. **Manager at LGA with no kerbside bulky waste collection**

This contrast between areas with the two different systems suggests that the existence of a kerbside collection service encourages kerbside dumping. Certainly, managers in LGAs where there was no history of kerbside collection services felt that no social norm for leaving items beside the kerb had been established:

I think they [residents] would find it strange if all of a sudden we were to introduce a kerbside collection. There might be some who used to live in councils where they had that, but up here it's not something they've ever really done. **Manager at LGA with no kerbside bulky waste collection**

Managers in LGAs that provided collection services tended, on the other hand, to believe that their kerbside dumping was caused by people overstepping the boundaries of acceptable use of the kerbside services (e.g. putting items out before or after collection periods and adding to items placed beside the kerb by others).

Leaving items beside the kerb is widely seen as acceptable

Residents who participated in group discussions were asked to group waste disposal options into 'legitimate' and 'not legitimate' categories. There was universal agreement that services provided by the council and EPA were legitimate. Leaving items at the kerbside tended to be included in the legitimate grouping, with the caveat provided that leaving items that were 'clearly rubbish' at the kerbside was not acceptable.

Non-legitimate disposal methods included options that were seen as illegal, or that cost others money, including dumping rubbish beside the kerb, dumping items in locations other than at the kerbside, and putting items in commercial waste bins. A number of participants admitted to using 'non-legitimate' forms of waste disposal to varying degrees. These behaviours were seen as being socially unacceptable, and as such they were conducted under the cover of darkness. More commonly, participants stated that they had seen other residents disposing of items non-legitimately and believed that these behaviours were relatively widespread.

Kerbside gifting is seen as a form of recycling

Participants in group discussions often spoke about increasing consumerism and their desire to help the environment by preventing reusable items (such as old TVs or furniture) from going to landfill. Many saw potentially reusable items being disposed of in landfill as wasteful and preferred the items to be reused by others if possible. They felt that this sense of recycling was the main motivator in their leaving items beside the kerb for others to take. We term this behaviour 'kerbside gifting'.

> If it's a perfectly working fridge … you might put it out the front … working or if someone could easily fix it. **Resident who lives in a single-unit dwelling**

Participants expressed little, if any, guilt at having left items beside the kerb in the past, with most expressing the feeling of having done something positive for others or the environment:

> I actually put kids' bikes out and prams. And if someone's taken it, it's obviously gone to a good place. **Resident who lives in a multi-unit dwelling**

> We started putting signs on it, a joke, 'for a good home'. **Resident who lives in a single-unit dwelling**

Let's be honest: it's also about cost and convenience

While participants were very open about the altruistic motivation of their kerbside gifting behaviours, the personal benefits—although discussed—were less often seen as a key motivation. The two key personal benefits of kerbside dumping expressed by participants were:

- **It's fast:** items can be disposed of in a very short time, with no need to travel anywhere.
- **It's free:** there's no cost to the dumper.

The decision to place reusable items beside the kerb is often reinforced by the observation that items are frequently taken by others within a very short time frame. Participants who engaged in kerbside gifting often mentioned that items had been taken by other residents within 24 hours:

> I put out a vacuum cleaner, went back in to get something else, came out and the vacuum cleaner's gone. **Resident who lives in a single-unit dwelling**

> I've lived in Harris Park for five years. I've never come back the next day and it [the item left at the kerbside] is still there. **Resident who lives in a multi-unit dwelling**

Some participants claimed that if an item was not taken within a short time frame they brought it back onto their property. In most cases they claimed that they would then wait for, or book, a council collection to dispose of the item.

Other participants openly admitted that they left items beside the kerb for longer periods. In these cases, the items eventually disappeared, although participants often admitted that they did not know whether they had been taken by the council, commercial resource recovery operators or other residents.

A grey area exists around reusable items

The council perspective

Although they did not necessarily condone kerbside gifting, councils did not see it as an issue if the resident made it clear that the item had been placed there for that purpose (e.g. by adding a sign) and subsequently took the item back off the kerbside if it was not taken by someone else within a day or two.

There's a big culture of putting things out beside the kerb for others to take. **Focus group participant**

As noted above, participants identified that leaving items that were clearly rubbish at the kerbside was not a legitimate way to dispose of waste. This view was shared by all participants, including those who admitted to using forms of disposal that were not universally considered acceptable.

When considering whether it was acceptable to leave an item beside the kerb, participants tended to calculate the end outcomes of their behaviour. Reuse of an item placed beside the

kerb was generally seen as a positive outcome for both the people involved in the transaction and the environment.

> It [placing reusable items out] is how communities have survived. In some senses it's fostered that sense of community. **Resident who lives in a multi-unit dwelling**

Many participants noted that there was a grey area centring on items that might be taken by others for reuse but that (equally) might not. Such items were not clearly reusable and were unlikely to be taken away from the kerbside by other residents in a short period of time. Examples included:

- appliances that were not currently working but could be fixed
- old trampoline frames
- scrap metal that might be of value to a dealer.

Participants often held the view that an object's worth was subjective. That is, although one person may think an item is rubbish, the resident who has placed it beside the kerb genuinely believes that it may have value to someone else. This perception is supported by sentimentality. Although an item might require a considerable amount of effort to bring it to working order, this sentimentality meant that, in the opinion of the resident who placed it beside the kerb, the repair work might be done by somebody else.

> People have different ideas about what's reusable. You might think something's good to take away, [but] your neighbour might think it's bad for the environment or something. **Resident from a multi-unit dwelling**

Some participants felt that they had a clear understanding of where the line was drawn between waste and reusable items. In cases where items that the participants felt were rubbish had been placed beside the kerb, participants felt that the person who had placed them there was also aware of this. They suggested that the person dumping the items was simply being lazy and using the idea that the items were reusable as an excuse to dump:

> There's a clear distinction between what's rubbish and what's not. **Resident from a multi-unit dwelling**

> There's a difference between putting out crap that no one's gonna want and putting out stuff that's usable. **Resident from a single-unit dwelling**

Most participants stated that they would bring items back in from the kerbside if they were not taken by others within a day or two:

> If it is there at night I bring it [i.e. the reusable item] back in and try again the next day. Otherwise I just wait for a council collection. **Resident who lives in a multi-unit dwelling**

However, most participants also reported that this situation was rare, as items were almost always taken away before they needed to be taken in.

Outside the 'grey area'

As noted earlier, there were a number of scenarios in which residents saw leaving items beside the kerb as obviously unacceptable or illegal, or both. The scenarios outlined in Table 2 were seen as being clearly outside the 'grey area'.

Table 2: Scenarios seen by residents as being outside the 'grey area' of kerbside dumping

Scenario	Description
Kerbside dumping of items that should clearly go to landfill	Any items that were clearly waste for landfill were seen by most participants as unacceptable. Such items included anything that would normally be disposed of via the weekly general waste or recycling collection.
Kerbside dumping of hazardous waste	Dumping of hazardous materials was seen by participants as the worst form of kerbside dumping owing to the potential harm caused by such waste. No situations were identified in which this would have been considered acceptable.
Leaving waste on a street other than your own (possible exception: during a council collection period)	Taking waste to a street other than your own was seen by most participants as unacceptable. Several participants had experienced this type of dumping on their own streets and were angry that the waste had simply been left there for them to deal with. Tempering this view slightly, some participants felt that doing this during council collection time could be acceptable if the location where the waste was left had a collection schedule different from the dumper's. Although it was acknowledged that the council was unlikely to endorse this activity, some felt it was socially acceptable.
Kerbside dumping in LGAs where there is no council-run collection, so that no kerbside disposal norm exists	Interviews with council managers in LGAs with no established council kerbside bulky waste collection revealed that it was likely that the lack of a social norm encouraging residents to leave waste beside the kerb would cause such behaviour to be unacceptable to others. However, note that there is no direct evidence of this from interviews with residents, because all of the group discussions were run in Sydney LGAs where collection services were provided.

Urgency can lead to dumping

Two scenarios were highlighted by participants as situations in which they felt they had no option but to leave items beside the kerb:

- when vacating a property
- when there was no space in their homes and the council collection was some time away.

In both of these scenarios, a kerbside-gifting mind-set was often applied to the dumping behaviour, as items were thought to be useful to other residents. The fact that going to the tip was not seen as an option in these scenarios shows how far outside the respondents' priorities this option was for many people.

Vacating a property

Property managers' perspective

Property managers deal with kerbside dumping regularly, with most estimating that between 10% and 20% of tenants vacating rental properties in multi-unit dwellings dump waste beside the kerb outside the block. Property managers are motivated to provide information on dumping to tenants in order to save themselves time and effort by minimising issues with dumped items when the tenants move out. Strata managers, in contrast, are often reluctant to engage in communications around kerbside dumping. They see it as the management responsibility of the tenant, owner, land agent or council.

Some of the property managers interviewed provided their own information about waste disposal options to tenants. The main reason they do this is to avoid dealing with kerbside dumping by their tenants. However, both property and strata managers felt that information from the council or EPA held more weight with tenants than information provided by the property or strata manager.

Property and strata managers felt that communications to tenants should both provide clear information on how to dispose of bulky waste and deter waste dumping by increasing the perceived likelihood of offenders being caught and fined.

Some participants expressed frustration at residents leaving unwanted items beside the kerb when moving out of a property. Few of the participants admitted to this, but many had experienced it from their neighbours:

> My neighbours recently moved and they left all this crap there and it's just pissed me off. **Resident who lives in a single-unit dwelling**

Of those who admitted dumping items when moving, one justified the behaviour by saying that she had paid her rates and the council would collect the items. No guilt was associated with the action of dumping (in this case a mattress), as she has seen others do the same thing previously.

As suggested by property managers, participants confirmed that the underlying reason for dumping when vacating a property was a lack of planning for waste disposal. Alongside the stress of having to find a new home and making the necessary arrangements, waste disposal was a low priority:

> There's so many things on his mind; he's moving house, the costs. So he just dumped it. **Resident who lives in a multi-unit dwelling (response given during a role-play exercise)**

Some participants mentioned having to wait for extended periods for a collection after it had been booked. If they hadn't booked the collection in time, they would be forced to leave items beside the kerb. Residents suggested that an urgent collection service—specifically for people moving out—was needed to solve this problem:

> If backpackers want to move out, even after a month, the council should have a service, ideally a free service, where you can ring. And then none of this [kerbside dumping upon moving out] would happen. **Resident of a multi-unit dwelling who was from a culturally and linguistically diverse background**

Lack of space

A few participants who lived in multi-unit dwellings stated that the limited size of their apartments meant that, if they purchased a new piece of furniture or an appliance, the replaced item would have to be left beside the kerb if no council collection was imminent. This issue was not reported by those who used booked council collection services.

A few participants in newer multi-unit dwellings noted that they had waste rooms or areas where they could store bulky items. Those who mentioned waste rooms indicated they used them for storing large items when needed. However, some of these participants had also left items beside the kerb, suggesting that the need to dispose of the items was still a challenge for them despite the presence of additional storage space.

Removal of items reinforces behaviour

Removal of dumped waste by councils without any notification that it is illegal appears to reinforce the view that the kerbside is an appropriate place to dispose of waste.

Some participants who admitted to leaving items beside the kerb for extended periods noted that the items were taken away eventually. When pressed by the moderator about who had taken the items (i.e. other residents, commercial collectors or the council) they generally admitted in many cases that they were uncertain. These participants often expressed satisfaction that the item was no longer their problem, and they tended not to feel any guilt associated with the mode of disposal (because they assumed that the item had been reused or recycled).

It therefore appears that by removing dumped waste without notifying residents of the illegality, councils reinforce dumping behaviour in two ways:

- For those who are unaware that the dumping is illegal, the behaviour appears to be a convenient and legitimate disposal method.
- For those who are aware of the illegality, the idea that the council is unwilling or unable to prosecute kerbside dumpers is reinforced.

Investigation tape and signage

Some participants had seen dumped waste with tape around it and signage such as ‘under investigation’, and they felt that these markers clearly demonstrated the illegality of dumping waste. However, as a reflection of the lack of clarity around how the law sees dumped waste, it was often felt that there were too few indicators of the illegality of dumping.

Most participants had not seen signage or tape indicating that waste had been illegally dumped. Those who had seen these markers often felt that, although the markers indicated that an investigation was under way, the dumpers would most often escape regulatory action.

Consequences are unlikely

The council perspective

All the managers interviewed saw the process of identification of dumpers as extremely difficult, and they reported that their councils experienced low success rates in attempting to make such identifications. In most cases, unless waste contained evidence of an address or there was a witness to the dumping, councils did not launch an investigation. This was particularly the case for regional councils or those in less populated areas, which often lacked the resources to be able to investigate:

A witness is only there 2% of the time … you wonder if there's even any point in going out to investigate.

Furthermore, some noted that those who dumped were likely to plan carefully and remove anything from the waste that was potentially incriminating:

People are very smart, and they don't leave anything in there that's going to trace it back to themselves.

Some managers noted that they had had more success identifying kerbside dumpers living in single-unit dwellings than those in multi-unit dwellings. This was most often the case when the waste was placed out the front of the single-unit dwelling. The dumping behaviour identified in these cases usually involved items being left beside the kerb too far in advance of, or after, a collection date.

The exception to this was when a tenant was moving out of a multi-unit dwelling and left their waste at the kerbside. Investigators could then contact the real estate agent to get the details of the likely offender. However, in a lot of cases the real estate agent had no forwarding details, meaning that the investigation could not be taken any further.

Despite efforts to remain anonymous in their kerbside disposal activities, most participants felt that it was unlikely that they would be caught and fined for leaving items at the kerbside. This perception arose for several reasons:

- Kerbside dumping had been observed by most participants on a regular basis without any hint that it had been detected or punished by council. Participants generally thought that, even if it was technically against the law, councils would turn a blind eye to kerbside gifting as long as the items were not left beside the kerb for an excessive amount of time.

- Participants felt that it was unlikely that their neighbours (especially in the case of those living in multi-unit dwellings) would detect their dumping behaviour and report them to council. Most felt that, if an individual was not observed dumping and there was nothing within the dumped items that could identify them, then there was almost no chance of them being caught. Some participants even expressed incredulity that dump sites that had been highlighted with investigative tape would yield prosecutions.

- Some participants also noted that cases of dumping were rarely—if ever—reported in the media. Certainly, none was aware of cases of kerbside dumpers being prosecuted, although some were aware of prosecutions in high-profile cases of industrial-scale dumping in national parks or dumping of asbestos in public places.

In addition, although the existence of taped-off dump sites demonstrates that kerbside dumping is being investigated, it does not provide evidence of any consequences for the dumpers.

Despite kerbside dumping often falling inside the 'grey area' and being seen as socially acceptable via the kerbside-gifting mind-set often applied by dumpers, many participants admitted that they often took measures to ensure that they would not be seen putting items beside the kerb. Through this furtive behaviour, respondents implicitly acknowledged that they might be judged more harshly by others than by themselves for dumping.

> We actually put all our big furniture and stuff on our front pathway. It usually goes overnight … it sounds really bad, doesn't it? **Transient resident**

Most are unaware of the size of fines

Most participants were unaware of the size of the fines for dumping beside the kerb, with many assuming that the fines would be relatively light (i.e. in the vicinity of $100 to $300). They were surprised when informed that the fines were significantly greater than this, and some refused to believe that the maximum fine would be applied.

> I can tell you right now no one will ever be fined seven and a half thousand dollars! **Resident who lives in a multi-unit dwelling**

… but knowledge acts as a deterrent

On the other hand, some participants expressed surprise and concern about the penalties and avoided placing items beside the kerb for that reason. Some of these participants stated that the size of the fines would be a deterrent for them:

> My biggest concern [about leaving items beside the kerb] would be penalties, if I got into trouble. **Transient resident**

> They need to advertise and say 'people get caught, this is the fine', and it has to be a hefty fine, too. **Resident who lives in a multi-unit dwelling**

Residents are reluctant to report each other

Participants were almost universally unwilling to report kerbside dumping by their neighbours, except in extenuating circumstances. In cases where participants felt that items had been dumped, they reported speaking to the neighbour rather than calling the council. Calling the council was generally seen as an unwelcome escalation of the situation.

Participants who had intervened when their neighbours had dumped items that were clearly outside the 'grey area' often spoke of taking an educational approach, particularly when the neighbour was a new immigrant. In many cases, these neighbours were given the benefit of the doubt if the participants suspected that the neighbours were simply unaware of the issue. A number of participants reported that neighbours had appreciated the advice and had stopped dumping rubbish.

> We actually go and tell them, this is not on. Dump it on your place … just don't put it there. **Resident of a multi-unit dwelling who was from a culturally and linguistically diverse background**

Five main reasons to not report neighbours were identified by participants:

- Because a social norm has been established whereby most residents will leave items beside the kerb at some point, participants felt it would be overly harsh to report or judge others for dumping.

- Many did not want to be responsible for their neighbour receiving a fine or other penalty. When participants were informed that the fines for kerbside dumping could be as high as $7000, they became even more unwilling to report their neighbours' dumping behaviours, with many feeling that the size of the fine was unwarranted.

- Many wished to avoid the altercations that might arise if the neighbours were to discover they had reported them.

- Some also noted that, as booked collection services have become more prevalent, it is difficult to tell whether items are being dumped or left out for collection.

- Some believed that little would come of reporting kerbside dumping owing to the difficulty in proving who had dumped the items. As a result, they believed that there was no point in reporting.

Residents know how to find waste service information

Most participants recognised that if they needed to find out about waste services they could simply contact the council by telephone or visit the council's website. Many participants had contacted their councils to book kerbside collections or inquire about dates of scheduled collection services. Others, although they knew that this was an option, had not felt the need to inquire about specific services, even when they needed to dispose of bulky items.

Many residents were aware that they could contact their councils directly. Their awareness of the range of services usually came from:

- council-supplied information: flyers or pamphlets and websites

- property or strata managers (but most often council)

- social norms (observing other residents)

Conclusions

In summary, the research identified several key factors that motivated residents to place unwanted items at the kerbside:

- Placing items at the kerb that could be reused by others was viewed as normal and socially acceptable.

- Kerbside disposal was seen as a free, environmentally friendly way for items to be reused and the most convenient way to dispose of items.

- Many residents were not aware of the fines for placing items at the kerbside, and if they were aware they thought it was very unlikely they would be caught or penalised.

The research identified strategies for councils to help reduce kerbside dumping behaviours:

- Clearly communicate what is acceptable when leaving items on the kerbside and clearly mark unacceptable dumped items before removing them.
- Develop communications strategies to improve residents' motivation to use recycling services or arrange council collection of waste items.
- To deter dumpers, improve residents' knowledge of fines and increase their perception that they could be caught and penalised.
- Provide information about penalties and appropriate waste disposal when a new item is purchased or when a resident moves in or out of a home (e.g. via property managers for tenants).
- Residents were unlikely to report kerbside dumping by neighbours, however encouraging reporting may deter dumpers.

The research also identified strategies that appeared unlikely to influence kerbside dumping behaviours:

- Knowledge of waste disposal services was high. Further education on waste disposal services is unlikely to reduce kerbside dumping.
- Informing residents of the cost of cleaning-up items placed at the kerb is unlikely to change behaviour as residents were often unconcerned about the cost for councils.
- Strata managers are not very interested in providing information to help reduce kerbside dumping as they are rarely impacted by it.