



Better practice guidelines for charitable recyclers

Assisting charitable recyclers to manage illegal dumping and unusable donations



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1. Background

The State Government is committed to making Western Australia a low waste society as outlined in the Western Australian waste strategy.

It has two programs to reduce illegal dumping and the donation of unusable items at charitable recycler drop-off sites and support charitable recyclers' continued efforts to divert waste from landfill. Eligible charitable recyclers can:

- apply for a rebate on the cost of the waste levy imposed on the disposal of unusable material left at their facilities through the Charitable Recyclers Rebate program.
- apply for funding to support the implementation and evaluation of interventions that reduce illegal dumping and the donation of unusable items at their bins and stores through the Charitable recyclers dumping reduction program.

These better practice guidelines outline interventions to reduce illegal dumping, littering and the illegal dumping of unusable goods at charitable recyclers' collection sites. They are based on research commissioned by the Waste Authority in 2016 and undertaken in collaboration with charitable recyclers in the Perth metropolitan region (Wright, et al., 2016).

The guidelines help charitable recyclers to identify and implement interventions to mitigate illegal dumping at their collection sites. Eligible organisations must consider these guidelines when applying for funding through the Charitable recyclers dumping reduction program.

The guidelines will be updated periodically following the evaluation of the interventions implemented through this program.

2. Charitable recyclers and illegal dumping

Charitable recyclers are not-for-profit organisations that accept donations at stores and bins located in the community, and sell them to fund charitable and community projects. The activities of charitable recyclers divert reusable items, such as clothing, household goods and furniture away from landfill.

Unusable donations and items illegally dumped at collection sites are disposed of to landfill at a significant cost to these organisations. In addition to landfill costs, charitable recyclers in the Perth metropolitan region must also pay the waste levy. Some of the impacts of illegal dumping are summarised in Table 1.

Table 1 Impacts of illegal dumping at charitable recycler sites

- Visual pollution in the area surrounding charitable recyclers' stores and collection sites
- High cost for clean-up and disposal of unusable items, including waste levy costs in the Perth Metropolitan region
- Potential to attract criminal activities, such as property destruction or arson
- Potential for dumped materials to cause environmental contamination
- Potential loss of community social licence to operate
- Local governments may request removal of collection bins or not approve placement of collection bins in certain areas

Illegal dumping is an offence under the *Environmental Protection Act 1986* and littering is an offence under the *Litter Act 1979* and penalties apply to both offences.

Illegal dumping includes leaving items outside charity bins and stores (including items that would be acceptable if donated correctly) and dumping materials that are clearly waste in charity bins or beside bins and stores (Figure 1). Donation of unusable items that are not accepted by charitable recycling organisations or are of poor quality (for example, dirty or stained clothes) and cannot be sold, is another major problem.



Figure 1: An example of illegal dumping at a charity collection bin

In 2013, The National Association of Charitable Recycling Organisations (NACRO) estimated that around 40 per cent of the material that charitable recyclers dispose of to landfill is from illegal dumping (National Association of Charitable Recycling Organisations, 2013). In Western Australia, charitable recyclers have estimated that disposing of dumped goods costs over \$300,000 annually (National Association of Charitable Recycling Organisations WA, n.d.).

The Department of Water and Environmental Regulation's Illegal Dumping Program works in partnership with charitable recyclers to undertake surveillance and enforcement action in response to illegal dumping.

2.1 Factors that influence illegal dumping

Research commissioned by the Waste Authority highlights the need to gather further information to improve understanding of the most effective ways to reduce illegal dumping at charitable recyclers' sites in the Perth metropolitan region (Wright, et al., 2016). This research indicates that illegal dumping is influenced by a number of factors, including:

- personal factors that mean some people are more likely to dump than others;
- locational factors that make some sites more prone to dumping than others; and
- the management of collection sites.

There is currently limited empirical evidence about what interventions are most effective in reducing illegal dumping at charitable recyclers' sites. Field research is needed to identify better practice.

2.1.1 Personal factors

There are a range of personal factors that affect the likelihood that an individual will dump materials (Table 2).

Table 2 Personal factors that influence dumping

Factors that may reduce dumping	Factors that may increase dumping
<ul style="list-style-type: none"> ✓ Positive donation norms and awareness of appropriate donating ✓ Availability of convenient and low cost ways to dispose of materials appropriately ✓ High perceived likelihood of being caught, fined or shamed 	<ul style="list-style-type: none"> ✗ Lack of knowledge about what charity recyclers accept and how to donate correctly ✗ Lack of convenient and low cost ways to dispose of materials appropriately ✗ Low perceived likelihood of being caught, fined or shamed

Different personal factors are likely to be influenced by different types of interventions. For example, an uncaring attitude or low perceived risk of being caught dumping could be addressed by increased surveillance and enforcement; and lack of knowledge about the impacts of illegal dumping could be addressed through community education.

The personal factors are likely to reflect the socio-demographic characteristics of people using the donation site (Leggatt-Cook, et al., 2016). Young people and people living in areas of lower education and employment and areas of higher mobility have also been associated with higher rates of dumping (Wright, et al., 2016) (Leggatt-Cook, et al., 2016) (NSW EPA, 2015).

2.1.2 Locational factors

Locational factors that have been linked to illegal dumping at charitable recyclers' sites are provided in Table 3. The locational factors primarily relate to the level of passive surveillance at the site and how convenient it is to dump materials.

Demographic features in the surrounding areas – such as mobility, or education and employment levels may also impact dumping.

Many locational issues are difficult to address once a store has been established, but may be useful when considering locations for collection bins.

Table 3 Locational factors that influence dumping

Factors that may reduce dumping	Factors that may increase dumping
<ul style="list-style-type: none"> ✓ Limited space to dump materials ✓ High passive surveillance (for example, 24 hour passing pedestrians and traffic, visibility from the street and surrounding shops) ✓ Bins consolidated at major shopping centres, with increased surveillance 	<ul style="list-style-type: none"> ✗ Space available to dump materials ✗ Low passive surveillance for example, industrial areas, sites at parks and reserves) ✗ Areas with high population mobility ✗ Areas with lower education and employment

2.1.3 Management of collection sites

Collection site management practices may also influence dumping (Table 4).

Research shows that people are more likely to litter or dump if they can see that others have done it before. Evidence of dumping and poor site appearance may create a 'norm' that dumping is acceptable.

Convenience may be a key factor in donation decisions. It may be unrealistic to expect all people to take their donations elsewhere if bins are already full (Leggatt-Cook, et al., 2016) (Wright, et al., 2016).

Table 4 Management of collection sites

Factors that may reduce dumping	Factors that may increase dumping
<ul style="list-style-type: none"> ✓ Well-kept / maintained sites – for example, freshly painted bins that are neatly aligned (Figure 2) ✓ Regular bin servicing to minimise the chance that bins are full when someone arrives with donation ✓ Prompt clean-up of dumped materials ✓ Stores with 24-hour collection facilities (bins and/or donation chutes) 	<ul style="list-style-type: none"> ✗ Bins in poor condition - for example, bin paint and signage are old and cracked, bins are misaligned ✗ Bins are not serviced frequently enough and are regularly full ✗ Dumped materials are not cleaned up promptly ✗ Stores without 24 hour collection facilities



Figure 2: A well maintained site may reduce dumping

3. Better practice

This guidance on better practice includes interventions to reduce dumping and ideas for data collection to gather evidence on their effectiveness.

3.1 Interventions

Two types of intervention are considered: infrastructure, and community education and engagement. Site-specific issues and the factors that influence illegal dumping (see Section 2) will influence the suitability of a specific intervention.

Consideration should be given to the implementation of complementary interventions.

Some examples are provided in Table 5.

Table 5 Example of better practice intervention

Example 1 – Bins sites in parks and reserves

Research shows bin sites in parks and reserves attract higher rates of dumping and that people are more likely to dump if they think they won't be caught doing it.

Dumping at sites in parks and reserves is likely to relate to lower surveillance and perceived risk of being caught. Increasing surveillance (such as cameras or security lighting) or warning signs that highlight the risk of being fined could be trialled.

Example 2 – Unkempt bin sites

Research shows unkempt bin sites are associated with higher levels of dumping and that people are more likely to litter or dump if they see that others have done it first. Poor appearance may create a 'norm' that littering or dumping is acceptable.

Bin refurbishment, improvements in bin monitoring to provide timely feedback on when sites require servicing and clean-up of dumped materials within 24 hours of notification could improve sites.

3.2 Community education and engagement

Community education and engagement have potential to significantly reduce illegal dumping by helping to address the personal factors that influence dumping and create positive social norms and social disincentives.

Research from Queensland suggests as much as half of the population could potentially dump items unintentionally, primarily due to incorrect beliefs about what can be recycled (Leggatt-Cook, et al., 2016).

To be effective, communication messages should be simple, consistent, personal and action oriented. Potential objectives for communication messages are provided in Table 6.

Table 6 Public communication objectives and examples regarding illegal dumping.

Consistent information to address lack of knowledge	Messages that support positive donation norms	Warnings about fines and enforcement
<ul style="list-style-type: none"> • Items accepted • Where to take items that are not accepted or if bins are full • How to organise pick up 	<ul style="list-style-type: none"> • Self-responsibility - your actions count • Thank people for doing the right thing • Explain the impact of dumping on charities 	<ul style="list-style-type: none"> • Dumping is illegal • It's likely you will be caught and fined or shamed • 'Eye' images to increase the perception of surveillance

Table 7 shows some better practice features for different types of communication and engagement. All communications should have a clear objective (see Table 6).

The Waste Authority's *Communications Guidelines*¹ provide additional guidance on planning effective waste communication.

¹ Available at www.wasteauthority.wa.gov.au/programs/communication-guidelines/

Table 7 – Better practice communication and engagement

Better practice	Less effective
Public campaigns – for example, online, media, social media	
<ul style="list-style-type: none"> ✓ Target population segments likely to illegally dump – for example, youth, high mobility areas ✓ Publicise fines and enforcement ✓ Coincide with high dumping periods – eg. Christmas ✓ Link to local government waste management and collection information 	<ul style="list-style-type: none"> ✗ Messages are unfocused, or too “wordy” or crowded ✗ Information is inconsistent across different sites, different charitable recyclers, or keeps changing ✗ Campaigns fail to meet the target audience needs – for example, too negative, or don’t address target audience barriers
Signage at stores, collection sites and on vehicles	
<ul style="list-style-type: none"> ✓ Signs are in good condition ✓ Signs clearly visible (at appropriate height) ✓ Use of pictorial signage to address any language and literacy issues ✓ Signs combined with security lights and cameras ✓ Signage is consistent with public campaign messaging (where relevant) 	<ul style="list-style-type: none"> ✗ Signs are the only intervention ✗ Signs are old, not visible or in poor condition
Direct engagement	
<ul style="list-style-type: none"> ✓ Store staff are informed about acceptable donation criteria ✓ Store staff provide feedback to donors to build awareness of accepted donations ✓ Stores are adequately staffed at peak times to engage with donors ✓ Build community ownership e.g. letter box drops with appropriate donation details and request information on dumpers 	<ul style="list-style-type: none"> ✗ Store staff are not informed ✗ Store staff do not engage with donors

3.3 Infrastructure

Infrastructure may be installed to increase active surveillance (Table 8) or to make dumping less convenient (Table 9).

Active surveillance may be increased through the installation of sensor lighting and security cameras.

The main items that have been used to make dumping less convenient are fences and gates however evidence on their effectiveness is mixed and suggests they should be combined with increased surveillance and/or educational signage.

Table 8 – Infrastructure

Better practice	Less effective
Surveillance cameras	
<ul style="list-style-type: none"> ✓ Installed on private property in a safe place ✓ Combined with signage and sensor lights 	<ul style="list-style-type: none"> ✗ Surveillance cameras can be vandalised due to their location ✗ Surveillance camera is sole intervention
Sensor lighting	
<ul style="list-style-type: none"> ✓ Combined with security cameras and signage 	<ul style="list-style-type: none"> ✗ Sensor lighting is the sole intervention
Fencing and gates	
<ul style="list-style-type: none"> ✓ Fencing or gates will reduce the opportunity for dumping (for example, by preventing access after-hours) ✓ Fencing is combined with sensor lighting, surveillance cameras and educational signage 	<ul style="list-style-type: none"> ✗ If fencing or gates are installed, people will be just as likely to dump outside the fence ✗ Fencing is the only intervention to be implemented

3.4 Collaborative approaches

Department of Water and Environmental Regulation Illegal Dumping Program

The Department of Water and Environmental Regulation’s Illegal Dumping Program has been actively fostering partnerships with local governments and charitable recyclers. Pooled resources and a common aim across jurisdictions are increasing the capacity to respond to illegal dumping incidents.

Proactive strategies include the installation of covert surveillance cameras, security lighting and overt patrols. Camera surveillance can improve the strength of a prosecution and may reduce dumping by increasing the perceived risk of being caught with the associated financial penalty and public humiliation.

The Illegal Dumping team has some limited resources to support surveillance and enforcement at high dumping charitable recycler collection sites.

Local government

There are a range of options that charitable recyclers and local governments could explore collaboratively to reduce illegal dumping. These include:

- Providing collection infrastructure at local government waste drop off locations
- Coordinating charitable recyclers’ pick-ups with local government collection events or other local government activities (for example, Garage Sale Trail and verge collections);
- Linking charitable recyclers’ communications with local government resources that set out appropriate disposal for items that these organisations do not accept
- Requesting local governments to provide rubbish bins close to charitable recycler collection bins.

Collaboration between charitable recyclers

Western Australian charitable recyclers already collaborate to address illegal dumping and inappropriate donations, including through the giv.org.au website. This is an initiative to reduce waste and make all donations count, involving some of Western Australia’s largest

charities, State government and the Western Australian branch of the National Association of Charitable Recycling Organisations (NACRO), which meets regularly and has contributed to the development of these guidelines.

Other collaborations

High population mobility is linked to illegal dumping. Charitable recyclers could partner with real estate agents and rental agencies to market waste reuse and disposal options to new and changing residents.

3.5 Data collection

A key finding of the research commissioned by the Waste Authority on illegal dumping was that more consistent data collection, reporting and evaluation is needed to assess which strategies are most effective at reducing illegal dumping.

Charitable recyclers that receive funding under the Charitable Recyclers Dumping Reduction Program will be required to collect data and evaluate the impact of funded waste prevention efforts. The evaluations will improve understanding of better practice.

3.5.1 Data collection at intervention sites

Data collection at study sites should be designed to:

- identify changes in the rate and amount of dumping at sites where interventions are implemented; and
- account for external influences, such as seasonal variations in dumping.

Where possible, data should be collected at paired sites. Paired sites are two sites that are similar in every way except that an intervention is implemented at only one of the sites (see Table 9 for further explanation). If paired sites cannot be identified, data may be collected at the proposed intervention site(s).

Data should be collected for at least three months prior to the intervention and three months after the intervention.

Table 9 Paired sites for assessing the impact of dumping

Paired sites are two sites that are similar in every way except that an intervention is implemented at only one of the sites. The sites should be similar with regard to:

- Rate and amount of illegal dumping experienced
- Existing site measures to reduce illegal dumping (for example, signage, security lighting, surveillance cameras, fencing)
- If a collection bin, comparable bin servicing routines
- Type of location (for example, industrial area, shopping centre, park, community centre)
- Passive surveillance (visibility from the street, neighbouring shops, passing pedestrians).

3.5.2 Type of data to collect

Incident reports that indicate how much material is illegally dumped and the rate of dumping should be completed.

The incident reports should include the following information:

- details of the frequency with which dumping activity is monitored at the site;
- date and time dumping observed;
- photographs of the dumping;
- the weight, volume or scale of the illegally dumped material² and inappropriate donations³ present; and
- the type of material dumped.

4. Bibliography

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² Illegal dumping includes: all material dumped outside collection bins, or outside charitable recyclers' stores regardless the type of material, and material that is clearly waste that is placed inside collection bins.

³ Materials that are donated correctly at collection sites but are: not accepted by the charity or of poor quality and therefore cannot be recycled by the charity.