

## **DRAFT BEST PRACTICE GUIDELINES FOR PLASTIC BAG LITTER MANAGEMENT IN PUBLIC PLACES**

### **INTRODUCTION**

On 23 December 2002, the Environment Protection and Heritage Council agreed to a package of measures to reduce the environmental impact of plastic bags and asked that specific proposals be developed for national action, including ways of reducing the impact of plastic bags as litter. Best Practice Guidelines for Plastic Bag Litter Management have been developed as part of the response to the plastic bag litter issues.

High consumption rates of plastic bags have led to increased inappropriate disposal of bags. Plastic bag litter impacts on – and reflects – the community’s perception of public areas. It can also seriously harm or kill wildlife and domestic animals.

While only 2% of all litter items are plastic bags, they are particularly prone to being littered due to their low weight and ability to ‘balloon’ and travel in wind. Plastic bag litter can be accidental – arising during management of an intended disposal site (whether a bin or landfill) – or may be due to intentional littering behaviour. Insufficient bin coverage, or inappropriate bin placement, can inadvertently encourage plastic bag littering behaviour.

The following best practice guidelines have been developed to minimise plastic bag litter generation at outdoor public places such as recreational parks, roadside rest stops and car parks, public transport nodes, shopping precincts, sport venues and other places where large gatherings congregate. They are complemented by similar guidelines for management of landfills.

The Guidelines are not designed to be prescriptive. They specify desired outcomes as well as providing suggested means of achieving litter reduction goals. It is intended that voluntary implementation of the Guidelines by public place managers (including local governments) and enforcement agencies will assist a national movement towards best practice litter management.

Although focused on plastic bag litter, the guidelines provide advice that will have a broader litter reduction impact. However, the Guidelines are not intended to replace the wider range of existing policies that may impact on litter, such as those covering security in public areas. Rather they are intended to complement existing litter management and prevention policies- including educational activities- of local governments, state governments or other public area managers.

### **PUBLIC PLACE LITTER MANAGEMENT**

To assist in undertaking the activities described below, public place managers may wish to develop linkages within their community in order to plan a more strategic and coordinated approach to litter prevention and management.

### **Acceptable Outcome**

Public place managers must take all reasonable steps to:

- Prevent litter through education, appropriate signage, provision of infrastructure suitable to the locality and enforcement.
- Maximise the capture of waste and recyclables in bins.
- Minimise litter entering waterways.
- Prevent litter arising from emptying of bins.
- Regularly clean up litter as a means of promoting cleaner behaviour.

### **Recommended Controls to Achieve the Outcome**

Local design standards and management procedures need to be developed for waste and recycling infrastructure and services in public places. Litter controls to prevent the escape of loose and lightweight material should include as a minimum:

- a) Analysis of the littering behaviour and locations in the area to inform decisions about waste and cleaning contracting, selection<sup>1</sup> and location of litter and recycling infrastructure, and to indicate public areas that may need to be redesigned or made more attractive and clean for litter prevention purposes.
- b) A litter education strategy to promote responsible disposal. This can include on-site and off-site elements as appropriate. For some target audiences or locations, on-site education and litter management need not be associated with bins.

For example, managers of some non-urban park/recreation reserves purposely do not provide bins and successfully promote the taking of waste home for responsible disposal/recycling. Money saved may be put towards other services and infrastructure. The strategy should provide for the upgrade of landscape design in areas prone to high levels of litter as well as more frequent cleaning. People generally respond positively to attractive, clean areas by reducing their own littering behaviour, whereas areas of high litter encourage people to consider the area uncared for and unsafe.

- c) Guidelines for the siting of bins for each type of public place that specify appropriate coverage and spacing. Priority should be given to high volume sources and consumption points such as take-away shops, canteens at sports ovals, public BBQs, bus stops, areas of public seating etc. Bin siting, however, will need to be tailored to the specific area and not solely determined by a fixed formula.
- d) Where possible, bins should not be placed in areas prone to high winds and urban design principles should be applied to ameliorate wind impacts in new developments.
- e) Where feasible, water sensitive urban design concepts should be incorporated into urban design to prevent litter from entering waterways. Such concepts would include

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<sup>1</sup> Note that an Australian Standard for mobile waste containers up to 1700 litres is currently being developed. The standard will include colours for mobile bin bodies and lids. Standardised recycling and garbage bins has the potential to reduce public confusion and facilitate broader based education initiatives for litter management and prevention.

planting of vegetation to trap litter, and design of drains so that litter does not have direct access to the waterway.

- f) Local guidelines for the design of bins should address prevention of entry by animals, loss of windblown material, minimise vandalism, and provide for recycling infrastructure, cigarette butt disposal and ease of collection. Designs need to take account of the setting. For example:
- A heavy receptacle with a latched lid may be appropriate in an area frequented by possums.
  - Outside a takeaway shop, it may be a wheelie bin locked to a stand featuring a mechanism that allows only a slight opening of the lid.
  - Where a more aesthetically pleasing design is required bins may be locked inside aesthetic housings featuring openings of an appropriate size and shape for the intended materials.
  - Bins in snow-prone areas should be designed to allow full accessibility for litter disposal and maintenance in all seasons. Wherever possible bin signage and recycling options should be similar to that used in homes in the area so that it is familiar and understandable.
- g) Local guidelines for the emptying of bins and cleaning of sites should be developed. Ideally these two functions take place at the same time so that litter resulting from bin emptying is immediately addressed. In any event, contracts for bin emptying should require a litter-wise approach and immediate attention to inadvertent litter. Public place cleaning and bin emptying contracts, or their management, should be combined to ensure that the most effective overall approaches are taken. This cooperation could also be extended to those in the local government who are responsible for parks and gardens. Specifications for collection frequency should be based on best available information, with the flexibility to make adjustments so as to avoid overflowing bins. Site cleaning should be regular and frequent enough that the most users encounter a litter-free site, with frequency adjusted at high usage times eg weekends and summer time at beach locations. This is because the level of litter already at a site is a significant determinant of littering behaviour.
- h) Public place managers should regularly inspect sites to monitor cleaning and collection services, initiate the replacement of damaged bins, and to recommend further improvements for litter prevention.
- i) An approval system for holders of public events should require the provision of specified levels of waste management infrastructure and services. The aim would be to cater for all waste materials generated in a manner that minimises litter and maximises recycling. Site cleaning services should aim to minimise litter generated during the event and return the site to a litter-free state.
- j) Appropriate litter law enforcement. This requires training of enforcement staff and setting of effective penalties. Penalties could involve community service (litter clean up) work orders or public naming of offenders and/or fines.

The public should be provided with a phone number for reporting litter matters.

## **DRAFT BEST PRACTICE GUIDELINES FOR PLASTIC BAG LITTER MANAGEMENT AT LANDFILL**

### **INTRODUCTION**

On 23 December 2002, the Environment Protection and Heritage Council agreed to a package of measures to reduce the environmental impact of plastic bags and asked that specific proposals be developed for national action, including ways of reducing the impact of plastic bags as litter. Best Practice Guidelines for Plastic Bag Litter Management have been developed as part of the response to the plastic bag litter issues.

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While only 2% of all litter items are plastic bags, they are particularly prone to being littered due to their low weight and ability to ‘balloon’ and travel in wind. Plastic bag litter can be accidental – arising during management of an intended disposal site (whether a bin or landfill) – or may be due to intentional littering behaviour.

The following best practice guidelines have been developed to help managers of unattended and attended landfills reduce generation of plastic bag litter. They are complemented by similar guidelines developed for managers of outdoor public places such as shopping precincts and parks.

These Guidelines are not designed to be prescriptive. They specify desired outcomes as well as providing suggested means of achieving litter reduction goals. It is intended that voluntary implementation of the Guidelines by landfill managers and enforcement agencies will assist a national movement towards best practice litter management.

Although focused on plastic bag litter, the guidelines provide advice that will have a broader litter reduction impact. However, the Guidelines are not intended to replace the wider range of existing policies that may impact on litter. Rather they are intended to complement existing litter management and prevention policies, including educational activities of local governments, state governments or other landfill managers.

### **LANDFILL LITTER MANAGEMENT:**

Landfill disposal contributes to the inadvertent litter problem with loose bags becoming windblown litter. To be effective, litter control strategies should include both engineering solutions and management options. Litter at landfill sites is largely associated with delivery and unloading of waste rather than with compaction and burial operations as the compaction and burial process generally punctures the plastic bags and makes them less likely to become windblown.

**ATTENDED LANDFILL SITES:**

**Acceptable Outcome**

Landfill operators must take all reasonable steps to:

- Prevent the generation of litter.
- Prevent litter accumulation on the premises.
- Prevent litter leaving the site.
- Prevent off-site litter accumulation within the vicinity of the premises.
- Regularly clean up litter both on and in the vicinity of the site.

**Recommended Controls to Achieve the Outcome**

Currently some licences do not require effective/best practice litter management for litter control but do include conditions prohibiting the burning of litter and ensuring litter does not build up on fences, screens or in the surrounding area. Appropriate procedures should be developed and amendments added to landfill licence conditions and operating contracts for the management, acceptance and placement of wastes to prevent off-site transportation of loose and lightweight material.

Litter controls employed at the landfill site should include the following as a minimum:

- a) Mobile litter screens that are easily erected, at least 4 metres high, highly portable and able to withstand local wind conditions whilst loaded with litter.
- b) Litter screens must be constructed in such a way to retain litter onsite even during variable wind conditions. Use of suitable material for screens that allows litter to be retained against the screen should be considered, particularly in areas of strong and variable winds.
- c) Mobile litter screens should be located downwind of the working face and relocated as necessary in accordance with wind changes.
- d) All site fencing, gates and litter screens should be regularly cleared of litter. Fences in close proximity to the tipping area and in prevailing wind directions may require more frequent attention.
- e) Establishment of a contingency plan to deal with extreme events that could cause gross litter problems.
- f) Regular inspection of the disposal site and surrounding areas should be conducted to identify any litter for manual removal. Such inspection may be conducted by the landfill operator or by a regulator. Litter outside the tipping area should be regularly collected and action taken to prevent its recurrence.
- g) Landfill operators should incorporate into their maintenance work program regular retrieval of litter that has escaped the site.
- h) Litter must not be deposited or allowed to accumulate in waters or leachate dams.
- i) It is preferable that landfill tip face management:
  - be managed to minimise wind dispersal of litter (for example through orientation that minimises the effect of prevailing wind conditions) and landfill operations managed to ensure that, as far as practicable, litter is retained on site.

- use high performance waste compaction equipment to tightly consolidate the surface of the working area where operational activities allow this.
  - involve progressive application of cover material during the course of the day of operations to ensure that the minimum surface area of waste is exposed at any one time.
- j) Should minimise the size of the working tipface.
- Independent audits of the litter control system on site should be conducted to ensure effectiveness of the litter management programs in place.
  - An appropriate communication strategy should be implemented to ensure that all users of the landfill site understand the necessity for the covering of loads.
- k) The public should be provided with a phone number for reporting litter matters to the landfill manager or another appropriate authority.

#### **UNATTENDED LANDFILL SITES:**

Attended landfill sites are preferable to unattended sites, as staff are able to more frequently and effectively take action to manage the landfill, including undertaking litter prevention and control activities on or near the site. There will be many sites, however, that are not attended and these guidelines are provided for unattended sites.

#### **Acceptable Outcome**

Landfill managers must take all reasonable steps to:

- Prevent litter generation.
- Minimise litter leaving the site.
- Regularly clean up litter.

#### **Recommended Controls to Achieve the Outcome**

Appropriate procedures need to be developed and written into landfill licence conditions for the management of wastes to prevent off-site transportation of loose and lightweight material.

Litter controls employed at the landfill site should include as a minimum:

- a) Appropriate regulations that require the covering of all loads delivered to landfill should be implemented, communicated and enforced to minimise the number of vehicles transporting uncovered loads of waste to the landfill. Enforcement of such regulations needs to be undertaken frequently enough to ensure appropriate levels of compliance.
- b) Transportable litter fences should be installed at all sites. Such fences should be at least 4 m high, be easily portable (i.e. able to be re-sited when the tipping area is relocated) and able to withstand local wind conditions whilst loaded with litter. Perimeter fences and on-site litter screens should be constructed so as to retain litter onsite even during strong and variable wind conditions.

- c) Use of litter nets above and around the tipping area should be considered to prevent litter generation from uncovered material.
- d) Landfill managers should incorporate regular (e.g. weekly, or in conditions of high winds, daily) retrieval of all litter, from all site fencing, gates and litter screens as well as removal of litter transported offsite, into a regular maintenance work program.
- e) The tipping face and disposal operations should be orientated to minimise the effects of prevailing weather conditions and minimise wind dispersal of litter.
- f) The size of the working tipface should be reduced to the minimum size possible.
- g) Maintenance programs should include regular compaction and covering of waste material.

The public should be provided with a phone number for reporting litter matters to the landfill manager or another appropriate authority.