# Chapter E5
# Waste Management

Part E ▸ General Controls for All Development

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# Chapter E5 Waste Management

## Contents

# E5.1 Introduction

## E5.1.1 Background

Waste and resource consumption is a major environmental issue and a priority for all levels of government within Australia. This is particularly the case as landfill sites become scarce and the environmental and economic costs of waste generation and disposal rise. Government and society alike are exposed to the issue of managing the increasingly large volumes of waste generated by society.

The building and construction industry in particular is a major contributor to waste, much of which is still deposited to landfill. Implementing effective waste minimisation strategies has the potential to significantly reduce these volumes as well as reduce costs. Well designed buildings that facilitate waste separation, recycling and composting support ongoing sustainability and recycling objectives.

This chapter identifies the on-site waste and recycling facilities that are to be included in the design of the development for its demolition, construction and ongoing use. It also identifies that a Site Waste Minimisation and Management Plan (SWMMP) is to be submitted with a development application (DA).

## E5.1.2 Land to which this chapter applies

This chapter applies to all land within the Woollahra Municipality.

## E5.1.3 Development types that this chapter applies to

This chapter applies to development that requires development consent, including development involving demolition and construction.

## E5.1.4 Objectives

The objectives of this chapter are:

O1 To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan.

O2 To identify on-site requirements for waste and recycling storage and management, having regard to access and amenity.

O3 To ensure waste management systems are compatible with collection services.

## E5.1.5 Relationship to other parts of the DCP

This chapter is to be read in conjunction with the other parts of the DCP that are relevant to the development proposal, including:

- If located in a residential area—the controls in Part B: General Residential, or Part C: Heritage Conservation Areas that apply to the land.
- If located in a business centre—the controls in Part D: Business centres that apply to the land.
- Part F: Land Use Specific Controls - this part contains chapters on Child Care Centres, Educational Establishments, Licensed Premises and Telecommunications.

## E5.1.6 Preparing your development application

### On-site waste and recycling facilities

All DAs are to address the provisions in Section 5.2 and 5.3 of this chapter.

In addition, the following sections also apply to certain types of development:

- For dwelling houses, semi-detached dwellings and dual occupancies—refer to Section 5.4;
- For multi dwelling housing and residential flat buildings—refer to Section 5.5;
- For commercial and non-residential development—refer to Section 5.6; and
- For mixed use development—refer to Section 5.7.

### Site Waste Minimisation and Management Plan

The SWMMP outlines measures to minimise and manage waste generated during the demolition, construction, and ongoing use of the site.

The SWMMP identifies:

- volume and type of waste and recyclables to be generated;
- storage and treatment of waste and recyclables on site;
- disposal of residual waste and recyclables;
- operational procedures for ongoing waste management once the development is complete; and
- information to be shown on the DA plans.

Council's DA Guide contains a template for preparing the SWMMP. All information in the template is to be addressed.

Maximum waste minimisation and management benefits are achieved when the SWMMP is considered from the earliest stages of the development. It is for this reason that the SWMMP is generally required with the DA.

Council may allow an exception where both a DA and a construction certificate (CC) are required for a development. In such cases, a preliminary SWMMP may be required with the DA and the final SWMMP details relating to the demolition and construction phases must be submitted to Council for approval prior to the CC being issued.

## E5.2 Demolition and construction phase

In the initial stages of development, attention to the design, estimating of materials and waste sensitive construction techniques and management practices, can achieve significant rewards in managing waste.

Demolition and construction activity should maximise resource recovery and minimise residual waste through waste avoidance, source separation and recycling. For example, applicants are encouraged to consider possible adaptive reuse of existing buildings, structures, and materials.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To ensure that sustainable waste and recycling management is considered at the demolition and construction stages of development. | C1 | A SWMMP is submitted with development application.<br>The SWMMP includes the following:<br>a) the estimated volume of waste generated; to be separately identified for the demolition, construction and ongoing operation phases of development;<br>b) the estimated volume of waste to be reused, recycled or disposed of; to be separately identified for the demolition, construction and ongoing operation phases of development;<br>c) how waste and recyclables will be stored and collected during the demolition and construction phases; and<br>d) measures for waste avoidance that have been incorporated into the design, material purchasing and construction techniques for the proposed development. |
| O2 | To minimise waste during the demolition of buildings or structures. | C2 | Development reuses or recycles salvaged materials onsite, where possible. |
| | | C3 | Development reuses or recycles excess construction materials, where possible. |
| O3 | To encourage building design and construction techniques that minimise waste generation. | C4 | Prefabricated components and recycled materials are used in the building, where possible. |
| | | C5 | Site disturbance and excavation is minimised. |

## E5.3 On-site waste and recycling controls for all development

Waste and recycling facilities should be well designed and accessible to occupants and service providers, as the design affects use, amenity, and the movement and handling of waste for the life of the development.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To ensure that development provides waste and recycling storage areas that meet the waste and recycling needs of tenants. | C1 | A SWMMP is submitted with the development application.<br>The SWMMP identifies the waste and recycling storage areas, by showing on the plans, the location and size of:<br>a) temporary indoor waste and recycling storage space for each dwelling or tenancy;<br>b) onsite waste and recycling storage areas;<br>c) individual and/or communal composting;<br>d) waste collection points;<br>e) garbage chutes and interim storage facilities for recyclable materials;<br>f) any service rooms (for accessing a garbage chute) on each floor of the building;<br>g) waste compaction equipment;<br>h) waste collection point for the collecting and emptying waste, recycling and garden waste bins; and<br>i) the path of travel for moving bins from the storage area to the collection point, where the collection is in a different location to the storage area. The width, height, grade and accessibility of the path of travel is to be identified. |
| O2 | To encourage source separation of waste, reuse, and recycling materials. | C2 | Waste and recycling storage areas are designed so recyclable materials are separated from general waste. |

| Objectives | | Controls | |
|---|---|---|---|
| O3 | To ensure that waste and recycle areas are suitably designed and located and do not cause nuisance or negative impacts. | C3 | Waste and recycling storage areas are located behind the building line or within non-habitable areas of the building. |
| | | C4 | Waste and recycling storage areas are integrated with the design of the overall development and do not detract from the streetscape. For example, external materials and finishes are a similar style and quality to the rest of the development. |
| | | C5 | Waste and recycling storage areas and composting areas are located so that the facility:<br>a) is convenient and safely located for occupants to access;<br>b) has an unobstructed access to the waste and recycling collection point, free of steps and kerbs and does not have a grade more than 1:8;<br>c) is secure and designed to minimise opportunities for vandalism; and<br>d) does not reduce amenity for occupants of the site and adjoining properties, by way of visual, noise or olfactory impacts. |
| | | C6 | Bulk bins, where permitted, are designed to be manually manoeuvred by one person in order to be serviced. |
| O4 | To ensure that waste and recycling collection points are suitably located. | C7 | Waste and recycling collection points do not impact on traffic and pedestrian safety. |
| | | C8 | Bins may be collected from a kerb side location where site characteristics, number of bins and length of street frontage do not compromise safety. |
| | | C9 | Where kerb side bin collection is not appropriate, bins are collected on site. |
| | | C10 | Where a collection vehicle is required to enter a property, access driveways and internal roads are designed in accordance with Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities – 2002. |

## E5.4 Dwelling houses, semi-detached dwellings and dual occupancies

Dwelling houses, semi-detached dwellings and dual occupancies are to be designed with suitably sized and located waste areas, and must provide opportunities for recycling and composting.

Note: The size of residential waste and recycling storage areas required in the heritage conservation areas of Paddington and the West Woollahra precinct, respond to the smaller lots typical in those areas.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To promote reuse and recycling in dwelling houses, semi-detached dwellings and dual occupancies. | C1 | Each dwelling has an indoor waste and recycling storage space of sufficient size to accommodate at least one day's waste and recycling generation. |
| | | C2 | Each dwelling has an onsite waste and recycling storage area either located externally behind the building line, or within a non-habitable area of the dwelling. |
| | | C3 | For a dwelling located in an area other than Paddington or West Woollahra, the size of the waste and recycling area accommodates:<br>a) 1 x 120L general waste bin;<br>b) 1 x 240L green waste bin; and<br>c) 2 x 55L recycling crates. |
| | | C4 | For a dwelling located in Paddington or West Woollahra—the size of the waste and recycling area accommodates:<br>a) 1 x 120L general waste bin; and<br>b) 3 x 55L recycling crates. |
| | | C5 | Each dwelling has an area suitable to accommodate on-site composting. |

## E5.5 Multi dwelling housing and residential flat buildings

The design of waste and recycling storage areas within the multi dwelling housing and residential flat buildings needs to address specific challenges with regard to waste volumes, ease of access and operation of waste sorting and removal systems.

Resources such as the *Better Practice Guide for Waste Management in Multi-Unit Dwellings* can also be used to inform design of medium density developments.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To promote reuse and recycling in multi dwelling housing and residential flat buildings. | C1 | Each dwelling is provided with an indoor waste and recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day's garbage and recycling generation. |
| | | C2 | For residential flat building, a communal waste and recycling storage area for housing bins is provided. |
| | | C3 | For multi dwelling housing, a waste and recycling storage area is provided in the form of an area for each dwelling, or as communal waste and recycling storage area. |
| | | C4 | The size and design of the waste and recycling area or areas accommodate:<br>a) 120L of residual waste per residential dwelling;<br>b) 55L of recyclables per residential dwelling stored in colour coded, shared use, 120L and/or 240L mobile garbage bins;<br>c) 240L shared use mobile garbage bins for food and garden organics. |
| | | C5 | An area or areas suitable to accommodate on-site composting is provided. This may be for a communal facility or an area for each dwelling. |
| | | C6 | Development containing 20 or more residential dwellings provides a garbage compaction unit. |
| | | C7 | Bulk waste bins are not encouraged and should only be considered for developments containing 12 or more dwellings. |

| Objectives | | Controls | |
|---|---|---|---|
| O2 | To ensure that waste and recycling collection points are suitably located. | C8 | Communal waste and recycling storage rooms should generally be located in a basement location within the main building envelope. Where the storage room is in a separate standalone structure, the room and access to it is designed consistent with Crime Prevention Through Environmental Design (CPTED) principles. |
| | | C9 | Development containing four or more storeys provides a suitable system for the transportation of waste and recyclables from each storey to waste storage and collection areas, such as a garbage chute. This is in addition to the central waste storage area. |
| | | C10 | Development containing 10 or more dwellings provides a dedicated room or caged area for the temporary storage of discarded bulky items which are awaiting removal. This storage area is readily accessible to all residents and located close to the main waste storage area. |
| | | C11 | The travel distance between the waste and recycling storage area to the collection point is not more than 75 metres. For development assessed using *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*, the maximum distance is 50m. |
| | | C12 | Collection and storage facilities are designed to provide an unobstructed and continuous accessible path of travel (as set out in the Australian Standard 1428 Design for Access and Mobility 2001) from the facility to:<br>a) the entry of any adaptable housing;<br>b) the principal entrance to each residential flat building; and<br>c) the point at which bins are emptied and collected. |

## E5.6 Commercial and non-residential developments

Developments containing a range of different non-residential uses present unique waste minimisation opportunities and management requirements. Flexibility in size and layout is often required to cater for the different needs of multiple tenants as well as future changes in use.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To promote reuse and recycling in mixed use development. | C1 | A waste and recycling cupboard is provided for each individual kitchen area in the development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. |
| O2 | To ensure waste management systems are suitably located and readily accessible to occupants and service providers. | C2 | Each waste and recycling cupboard is designed to hold a minimum of one day's waste and keep general waste separated from recyclable materials. |
| | | C3 | A goods lift may be included in multiple storey buildings. |
| | | C4 | The size of the waste and recycling storage area or areas is designed to accommodate the rates of waste generation and recyclable material generation identified in Table 1 below. |
| | | C5 | Bulk waste bins are not encouraged and should only be considered for developments containing 12 or more tenancies. |
| | | C6 | Waste and recycling containers should be collected from a rear lane access point, where possible. |

**TABLE 1** Waste and recycling generation rates

| Premises type | Waste generation | Recyclable material generation |
|---|---|---|
| Backpackers hotel | 40L/occupant space/week | 20L/occupant space/week |
| Boarding house, guest house | 60L/occupant space/week | 20L/occupant space/week |
| Food premises | | |
| Butcher | 80L/100m² of floor area/day | Variable |
| Delicatessen | 80L/100m² of floor area/day | Variable |
| Fish shop | 80L/100m² of floor area/day | Variable |
| Greengrocer | 240L/100m² of floor area/day | 80L/100m² of floor area/day |
| Restaurant/café | 10L/1.5m²of floor area/day | 2L/1.5m²of floor area/day |
| Supermarket | 240L/100m² of floor area/day | 240L/100m² of floor area/day |
| Takeaway food shop | 80L/100m² of floor area/day | Variable |
| Hairdresser, beauty salon | 60L/occupant space/week | Variable |
| Hotel, licensed club, motel | 5L/bed space/day | 1L/bed space/day |
| | 50L/100m² of bar area/day | 50L/100m² of bar area/day |
| | 10L/1.5m² of dining area/day | 50L/100m² of dining area/day |
| Offices | 10L/100m² of floor area/day | 10L/100m² of floor area/day |
| Shop up to 100m² floor area | 50L/100m² of floor area/day | 25L/100m² of floor area/day |
| Shop greater than 100m² floor area | 50L/100m² of floor area/day | 50L/100m² of floor area/day |
| Showroom | 40L/100m² of floor area/day | 10L/100m² of floor area/day |

Source: Model Waste Chapter 2008 - Department of Environment and Climate Change

## E5.7 Mixed use developments

In mixed use development where residential and commercial land uses occur within the one building or development site, waste management needs to address the different demands and preserve residential amenity.

| Objectives | | Controls | |
|---|---|---|---|
| O1 | To promote reuse and recycling in mixed use developments. | C1 | The waste and recycling storage area for the residential component is separate to the waste storage area provided for the commercial component. |
| | | C2 | The controls in Section 5.5 (Multi dwelling housing and residential flat buildings) apply to the residential component of mixed use development. |
| | | C3 | The controls in Section 5.6 (Commercial and non-residential developments) apply to the non-residential component of mixed use development. |