

## Chapter 15

# Waste Minimisation



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# WASTE MINIMISATION DEVELOPMENT CONTROL PLAN

## 1. INTRODUCTION

Under the *NSW Waste Avoidance and Resource Strategy* (WA & RR) 2003 materials including construction and demolition waste that would otherwise be disposed of should be reclaimed and recycled for reuse. This strategy includes an action plan for local government detailing the responsibilities of local government in meeting strategy objectives.

Based on the WA & RR strategy the Waste and Sustainability Improvement Scheme was developed and is described in Part 5A of the *Protection of the Environment Operations (Waste) Regulation* 2005, Clause 46B where a guideline has been implemented. The guideline requires councils to have in place a Construction Site Waste Minimisation and Management Development Control Plan (DCP) or Policy of similar nature by 31 May 2012 as one of a number of target actions.

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 our society.

Sustainable resource management and waste minimisation has emerged as a priority action area and a key in the quest for Ecologically Sustainable Development (ESD). Critical actions in this regard include the following (moving from most desirable to least desirable):

1. Avoiding unnecessary resource consumption
2. Recovering resources for reuse
3. Recovering resources for recycling or reprocessing
4. Disposing of residual waste (as a last resort).

The building and construction industry in particular is a major contributor to waste, much of which is still deposited to landfill. The implementation of effective waste minimisation strategies has the potential to significantly reduce these volumes.

Effective waste planning and management can also benefit the builder/ developer. Some of the benefits of good waste planning and management include:

1. Reduced costs
2. Improved workplace safety
3. Enhanced public image
4. Compliance with legislation such as the *Protection of the Environment Operation Act, 1997* that requires waste to only be transported to a place that can lawfully accept it.

**This DCP includes the following elements:**

1. A requirement to address the management of demolition and construction waste;
2. A requirement for submission of a waste management plan detailing the amount of construction and demolition waste likely to be generated and how these materials are to be sorted and dealt with;
3. A requirement for the onsite retention of demolition and construction waste docket to confirm which facility received the material for recycling and disposal; and

4. Consideration of the facilities required for the post completion, ongoing operation or recycling and waste management services.

These elements result in a Site Waste Minimisation and Management Plan (SWMMP).

A requirement for all new Development other than Exempt and Complying Development SWMMPs will include a written document, usually including graphics, which outlines measures to minimise and manage waste generated during various stages of a development, including demolition, construction and ongoing use of the development. In doing so the SWMMP specifies the method of recycling or disposal and the waste management service provider. It nominates for each stage:

1. Volume and type of waste and recyclables to be generated;
2. Storage and treatment of waste and recyclables onsite;
3. Disposal of residual waste and recyclables;
4. Operational procedures for ongoing waste management once the development is complete;
5. Other matters specified by Section 1 – Waste Minimisation and Management of this DCP.

### **1.1 Purpose of this Section**

This Section of the DCP aims to facilitate sustainable waste management within the Local Government area in a manner consistent with the principles of Ecologically Sustainable Development (ESD).

### **1.2 Objectives of this Section**

The objectives of this DCP in pursuit of sustainable waste management include:

#### **Waste Minimisation**

- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To minimise demolition waste by promoting adaptability in building design and focussing upon end of life deconstruction.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To maximise reuse and recycling of household waste and industrial/ commercial waste.

#### **Waste Management**

- To assist applicants in planning for sustainable waste management, through the preparation of a Site Waste Minimisation and Management Plan (SWMMP).
- To assist applicants to develop systems for waste management that ensures waste is transported and disposed of in a lawful manner.
- To provide guidance in regards to space, storage, amenity and management of waste management facilities.
- To ensure waste management systems are compatible with collection services.
- To minimise risks associated with waste management at all stages of development.

### **1.3 Development Covered by this Section of the DCP**

This Section of the DCP applies to the following types of development, where that development may be carried out only with development consent:

1. Demolition.

2. Development involving construction, erection of a building or carrying out works.
3. Change of use.

Storage and disposal of liquid waste such as oils, chemicals, grease, interceptor waste and other liquid trade wastes are not covered by this DCP. Developments that generate these types of waste will require a separate Liquid Trade Waste approval pursuant to Section 68 of the *Local Government Act, 1993*.

## **1.4 Development Approval Process**

### **1.4.1 Development that Requires Consent**

When determining a development application under Section 79C of the *Environmental Planning and Assessment Act, 1979* (as amended) (The Act), Council must consider the contents of this DCP.

Compliance with the minimum provisions herein does not, however, necessarily mean that an application will be approved, as each application will be considered on its merits.

### **1.4.2 Exempt and Complying Development**

Preparation of a Site Waste Minimisation and Management Plan (SWMMP) is not required for exempt and complying development unless specified in an Environmental Planning Instrument. However, persons carrying out exempt and complying development are encouraged to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives herein.

### **1.4.3 State Significant Development/Major Projects**

State Environmental Planning Policy (Major Development) 2005 provides for transitional Part 3A projects under the EP&A Act 1979. The Minister (or by delegation the Department of Planning and Infrastructure) is the consent authority for these projects.

Council will liaise with the Department of Planning and Infrastructure (representing the Minister) to ensure appropriate outcomes in respect of waste minimisation and management.

The minimum requirements for such forms of development will be compliance with the aims and objectives of this DCP.

### **1.4.4 Departures from the Controls of this DCP**

It is accepted that optimum waste minimisation and management will necessitate site specific and sometimes unique solutions. Council may approve variations to the Acceptable Solutions herein in accordance with the principles of merit-based assessment. Any request for variation to the provisions must be in writing and must comprise part of the application. The request must clearly demonstrate that:

1. The objectives of this DCP are met,
2. The proposal complies with relevant Performance Criteria,
3. Compliance with the relevant provisions is unreasonable or unnecessary in the circumstances of the case, and
4. The proposed variation results in an equivalent or better outcome in terms of ESD.

### **1.4.5 Other NSW Government Statutes**

Apart from State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP), various other statutory initiatives of the NSW Government may supplement, amend or override the controls in Lismore City Council's LEP and this DCP.

It is recommended that before preparing to undertake or to seek approval for development you should contact the NSW Department of Planning (website [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)) to confirm whether or not the provisions of other Planning Instruments or statutes supplement, amend or override the controls in Lismore City Council's LEP and this DCP. Council's Planners are also available to assist with this.

#### **1.4.6 Abbreviations**

The following abbreviations are used in this DCP:

<b>BCA</b>	Building Code of Australia
<b>CC</b>	Construction Certificate
<b>DA</b>	Development Application
<b>DCP</b>	Development Control Plan
<b>EPA</b>	Environment Protection Authority
<b>ESD</b>	Ecologically Sustainable Development
<b>LEP</b>	Local Environmental Plan
<b>SEE</b>	Statement of Environmental Effects
<b>SEPP</b>	State Environmental Planning Policy
<b>The Act</b>	<i>Environmental Planning and Assessment Act, 1979</i> (as amended)
<b>SWMMP</b>	Site Waste Minimisation and Management Plan

#### **1.4.7 Summary Guide to using this DCP**

This Section of the DCP is designed to be used as follows:

##### **A. Read Section 1 – Introduction**

Section 1 provides a background to waste minimisation and management. It details aims and objectives of waste minimisation and management associated with local development and the application of this DCP.

##### **B. Read Section 2 – Submission Requirements**

Section 2 provides specific advice regarding information that must accompany a Development Application (DA) and highlights the requirements of a Site Waste Minimisation and Management Plan (SWMMP).

##### **C. Read Sections 3 and 4 – Assessment Criteria/Controls**

Sections 3 and 4 detail the criteria and controls that Council will consider in assessing the adequacy of the Site Waste Minimisation and Management Plan, and in addressing the principles of sustainable waste management.

Section 3 details general criteria and controls for all demolition and construction, while Section 4 adds additional criteria and controls for specific types of construction.

##### **D. Read the Appendices — Further Information**

The Appendices provide useful information in interpreting this DCP, understanding the waste minimisation and management environment and documenting the central submission requirement for waste management issues – a Site Waste Minimisation and Management Plan.

## **2. SUBMISSION REQUIREMENTS FOR DEVELOPMENT APPLICATIONS**

### **2.1 Documentation required for all Development Applications**

The Statement of Environmental Effects submitted with development applications is to include a Site Waste Minimisation and Management Plan (SWMMP) or other documentation that addresses the requirements of this DCP chapter.

In addition to submission of a SWMMP, the waste management facilities proposed as part of the development must be clearly illustrated on the plans and drawings accompanying the development application.

### **2.2 Site Waste Minimisation and Management Plans (SWMMP)**

The level of detail required for the Site Waste Minimisation and Management Plan (SWMMP) will vary with the size and complexity of the proposed development. For example, a Development Application seeking consent for a single dwelling house would normally require a very simple SWMMP, while a Development Application seeking consent for a large commercial or industrial complex is likely to require an extensive SWMMP that documents full details of proposed waste generation, management, recycling, storage and disposal measures.

The SWMMP must outline measures to minimise and manage waste generated during:

1. Demolition;
2. Construction; and
3. Ongoing operation and use of the development.

In doing so, the SWMMP must nominate:

1. The volume and type of waste and recyclables to be generated.
2. Proposed measures for storage and treatment of waste and recyclables onsite.
3. Proposed measures for disposal of residual waste and recyclables.
4. Proposed operational procedures for ongoing waste management once the development is complete.
5. Proposed means of access and manoeuvring for recycling/ waste management bins and vehicles.

The SWMMP must specify the proposed method of recycling or disposal and the waste management service provider.

**Appendix A** provides a template for the compilation of a SWMMP.

**Appendix B** provides a waste minimisation template checklist for new dwelling houses, semi-detached dwellings and dual occupancies that can be used to satisfy the performance criteria of section 4.1 of this chapter.

### **2.3 Waste/ Recycling Generation Rates**

In the absence of project specific calculations, the rates specified in Appendix C - Waste/ Recycling Generation Rates and Council's current rate of provision of services to residential properties can be used to inform the compilation of a SWMMP.

### **3. GENERAL DEVELOPMENT CRITERIA**

#### **3.1 Exempt and Complying Development**

A SWMMP is not required in association with Exempt and Complying Development carried out in accordance with the Codes SEPP or Council's Exempt and Complying Development provisions. Most dwellings and ancillary structures can be demolished as complying development under the Codes SEPP with the exception of dwellings that are listed as heritage items or are located within a heritage conservation area under LEP 2012. The Codes SEPP also provides for demolition of some commercial and industrial buildings as complying development (refer to Part 7 Demolition Code of the Codes SEPP for details).

However, a person carrying out exempt development should seek to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives herein.

#### **3.2 Demolition of Buildings or Structures**

##### **Objectives**

- *To maximise resource recovery and minimise residual waste from demolition activities.*
- *To optimise adaptive reuse opportunities of existing building/ structures.*
- *To maximise reuse and recycling of materials.*
- *To minimise waste generation.*
- *To ensure appropriate storage and collection of waste.*
- *To minimise the environmental impacts associated with waste management.*
- *To avoid illegal dumping.*
- *To promote improved project management.*

##### **Performance Criteria**

There are no Performance Criteria.

##### **Acceptable Solutions**

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications seeking consent for demolition. The SWMMP must demonstrate that the proposed development will:

1. Pursue adaptive reuse opportunities of buildings/ structures.
2. Identify all waste likely to result from the demolition, and opportunities for reuse of materials. Refer to Table 1.
3. Facilitate reuse/ recycling by using the process of 'deconstruction', where various materials are carefully dismantled and sorted.
4. Reuse or recycle salvaged materials onsite where possible.
5. Allocate an area for the storage of materials for use, recycling and disposal (giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation, and access and handling requirements).
6. Provide separate collection bins or areas for the storage of residual waste.
7. Clearly 'signpost' the purpose and content of the bins and storage areas.
8. Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.
9. Minimise site disturbance, limiting unnecessary excavation.



When implementing the SWMMP the applicant must ensure that:

1. Footpaths, public reserves, street gutters are not used as places to store demolition waste or materials of any kind without Council approval.
2. Any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act, 1997*.
3. Waste is only transported to an approved waste or resource management facility.
4. Generation, storage, treatment and disposal of hazardous waste and special waste (including asbestos), is conducted in accordance with relevant waste legislation administered by the EPA and relevant Workplace Health and Safety legislation administered by WorkCover NSW.

Evidence such as weighbridge dockets and invoices for waste disposal or recycling services are retained.

**Note.** Materials that have an existing reuse or recycling market should not be disposed of in a landfill. Table 1 provides a list of some potential reuse/ recycling options. Reuse and recycling opportunities are decreased when asbestos is not carefully removed and segregated from other waste streams.

**Table 1** - Examples of demolition materials and potential reuse/ recycling opportunities.

Material	Reuse/recycling potential
Concrete	Reused for filling, levelling or road base
Bricks and Pavers	Can be cleaned for reuse or rendered over or crushed for use in landscaping and driveways
Roof Tiles	Can be cleaned and reused or crushed for use in landscaping and driveways
Untreated Timber	Reused as floorboards, fencing, furniture, mulched or sent to second hand timber suppliers
Treated Timber	Reused as formwork, bridging, blocking and propping, or sent to second hand timber suppliers
Doors, Windows, Fittings	Sent to second hand suppliers
Glass	Reused as glazing or aggregate for concrete production
Metals (fittings, appliances and wiring)	Removal for recycling
Synthetic Rubber (carpet underlay)	Reprocessed for use in safety devices and speed humps
Significant Trees	Relocated either onsite or offsite
Overburden	Power screened and used as topsoil
Garden Waste	Mulched, composted
Carpet	Can be sent to recyclers or reused in landscaping
Plasterboard	Removal for recycling, return to supplier

### 3.3 Construction of Buildings and Structures

#### Objectives

- *To maximise resource recovery and minimise residual waste from construction activities.*
- *To maximise reuse and recycling of materials.*
- *To minimise waste generation.*
- *To ensure appropriate collection and storage of waste.*
- *To minimise the environmental impacts associated with waste management.*
- *To avoid illegal dumping.*
- *To promote improved project management.*
- *To optimise adaptive reuse opportunities of existing building/structures.*

#### Performance Criteria

There are no Performance Criteria

#### Acceptable Solutions

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications seeking consent for construction of buildings or structures.

The SWMMP must:

1. Estimate volumes of materials to be used and incorporate these volumes into a Purchasing Policy so that the correct quantities are purchased. For small-scale building projects see the rates in **Appendix C - Waste/ Recycling Generation Rates** for a guide.
2. Identify potential reuse/ recycling opportunities of excess construction materials.
3. Incorporate the use of prefabricated components and recycled materials.
4. Specify arrangements for the delivery of materials so that materials are delivered 'as needed' to prevent the degradation of materials through weathering and moisture damage.
5. Consider organising to return excess materials to the supplier or manufacturer.
6. Allocate an area for the storage of materials for use, recycling and disposal (considering slope, drainage, location of waterways, stormwater outlets and vegetation).
7. Nominate proposed arrangements to ensure appropriate transport, processing and disposal of waste and recycling; and to ensure that all contractors are aware of the legal requirements for disposing of waste.
8. Promote separate collection bins or areas for the storage of residual waste.
9. Clearly 'signpost' the purpose and content of the bins and storage areas.
10. Specify intended implementation measures to prevent damage by the elements, odour and health risks, and windborne litter.
11. Minimise site disturbance and limit unnecessary excavation.
12. Ensure that all waste is transported to a place that can lawfully be used as a waste facility.
13. Require retention of all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory authorities such as Council, EPA or WorkCover NSW.

### 3.4 Bin Sizes and Collection Measures

#### Objectives

- *To ensure that adequate provision is made for collection, storage and transport of waste for all development, commensurate with the development's scale, nature and potential for waste generation.*
- *To ensure that the design and provision of waste collection, storage and transport facilities does not create significant adverse impacts on the amenity of the surrounding locality.*
- *To ensure that the design and provision of waste collection, storage and transport facilities does not create significant adverse parking, cycle or traffic impacts on adjoining roads.*

### **Performance Criteria**

Recycling and waste collection services in Lismore City Council provide for two primary levels of onsite waste storage and collection facilities. For smaller scale developments such as individual dwelling houses, small scale multi dwelling housing and low key business premises or industries, Council provides a kerbside pickup service utilising 140L, 240L or 360L 'wheelie bins'.

For larger developments a bulk bin service is required, for which the landowner and/or occupier must enter into a contractual arrangement with Council or a service provider.

The SWMMP provided with the development application must specify the proposed bin sizes and collection arrangements for the development.

Where collection is proposed by Council's kerbside pickup service, the SWMMP and development application must specify and illustrate in a site plan drawn to a readily legible scale:

1. The site's boundary dimensions and available kerbside/ road frontage space, after deducting existing or proposed access driveways.
2. The kerbside/ road frontage space intended to be occupied by 'wheelie bins' on pickup days, based on the dimensions of the bins proposed. Bin dimensions are available on request from Council.

If the kerbside/ road frontage space intended to be occupied by 'wheelie bins' exceeds 75% of the site's available kerbside/ road frontage space (after deducting existing or proposed access driveways), the SWMMP must include justification of reasons why a bulk bin service should not be provided. That justification must include an analysis of the likely amenity, pedestrian, cycle and traffic impacts of the proposed kerbside/ road frontage bin storage and collection arrangements on pickup day. The analysis must address visual impacts, amenity impacts, pedestrian and cycle impacts and impacts on parking and traffic movement on adjoining roads. In those circumstances Council is unlikely to approve a kerbside pickup service for the development unless it considers that those impacts are likely to be not significant.

Where collection is proposed other than by Council's kerbside pickup service, the SWMMP and development application must specify and illustrate in a site plan drawn to a readily legible scale:

1. The proposed bin storage location, dimensions, pickup vehicle access and manoeuvring arrangements.
2. The proposed means of ensuring that the pickup vehicle can enter and exit the site in a forward direction and can manoeuvre safely onsite, in accordance with Council's DCP requirements for Access and Manoeuvrability for various vehicle types.

### **Acceptable Solutions**

Not applicable.

## 4. SPECIFIC DEVELOPMENT CRITERIA

### 4.1 Dwelling Houses, Semi-Detached Dwellings and Dual Occupancies

#### Objectives

- *To encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.*
- *To maximise reuse and recycling of materials.*
- *To minimise waste generation.*
- *To ensure appropriate collection and storage of waste.*
- *To minimise the environmental impacts associated with waste management.*
- *To avoid illegal dumping*

#### Performance Criteria

Appropriate waste minimisation measures are to be incorporated into the construction and post construction phases of the development. Documentation is to be provided regarding waste and recycling during the construction of, and occupation of the dwelling.

The completion of Council's Waste Minimisation template checklist for new Dwelling Houses, Semi-Detached Dwellings and Dual Occupancies is deemed to satisfy these performance criteria. Refer to Appendix B in this chapter.

#### Acceptable Solutions

A Site Waste Minimisation and Management Plan (SWMMP) submitted with a development application is to include:

1. The location of an appropriate indoor waste/ recycling storage space,
2. The location of an onsite waste/ recycling storage area for each dwelling, that is of sufficient size to accommodate Council's waste and recycling bins. Indicative bin sizes are shown in **Appendix D - Indicative Bin Sizes.**
3. Waste container storage in a suitable location so as to avoid vandalism, nuisance and adverse visual impacts.
4. Designated area for composting is not to adversely impact on adjoining properties.
5. The waste/ recycling storage area should be located in the rear yard or appropriately screened area and minimise the distance of travel to the collection point.
6. Sufficient space within the kitchen (or an alternate location) for the interim storage of waste and recyclables.

### 4.2 Multi Dwelling Housing and Residential Flat Buildings

#### Objectives

- *To encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.*
- *To ensure appropriate waste storage and collection facilities.*
- *To maximise source separation and recovery of recyclables.*
- *To ensure waste management systems are as intuitive for occupants as possible and are readily accessible.*
- *To ensure appropriate resourcing of waste management systems, including servicing.*
- *To minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene.*
- *To minimise adverse environmental impacts associated with waste management.*
- *To discourage illegal dumping by providing onsite storage, and removal services.*

## Performance Criteria

There are no Performance Criteria.

## Acceptable Solutions

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications. Plans submitted with the development application and SWMMP must show:

1. The location of an indoor waste/ recycling appropriate storage space for each dwelling.
2. The location of individual waste/ recycling storage areas (such as for townhouses and villas) or a communal waste/ recycling storage room(s) able to accommodate Council's waste and recycling bins.
3. The location of any interim storage facilities for recyclable materials.
4. The location of any waste compaction equipment.
5. An identified location for individual compost containers or communal compost container.
6. An identified collection point for the collection and emptying of Council's waste and recycling bins.
7. The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area).
8. The onsite path of travel for collection vehicles (if collection is to occur onsite), taking into account accessibility, width, height and grade.

The SWMMP must address and demonstrate that the following criteria and outcomes will be achieved:

1. Systems must be designed to maximise source separation and recovery of recyclables.
2. Waste management systems must be designed and operated to prevent the potential risk of injury or illness associated with the collection, storage and disposal of wastes.

The following minimum collection and storage facilities must be provided:

1. Each dwelling unit must be provided with an indoor waste/ recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day's garbage and recycling generation.
2. Residential flat buildings must include communal waste/ recycling storage facilities in the form of a waste/ recycling storage room (or rooms) designed in accordance with **Appendix E - Waste Recycling/ Storage Rooms in Multi Dwelling Housing** and the *Better Practice Guide for Waste Management in Multi-Unit Dwellings*.
3. Multi Dwelling housing in the form of townhouses and villas must include either individual waste/ recycling storage areas for each dwelling or a communal facility in the form of a waste/ recycling storage room (or rooms) designed in accordance with **Appendix E - Waste Recycling/ Storage Rooms in Multi Dwelling Housing** and the *Better Practice Guide for Waste Management in Multi-Unit Dwellings*.
4. The waste/ recycling storage area(s) or room(s) must be of a size that can comfortably accommodate separate garbage, recycling and garden waste containers at the rate of Council provision.
5. For residential flat buildings that include 10 or more dwellings, a dedicated room or caged area must be provided for the temporary storage of discarded bulky items which are awaiting removal. The storage area must be readily accessible to all residents and must be located close to the main waste storage room or area.

The following location and design criteria apply to collection and storage facilities:

1. In townhouse and villa developments with individual waste/ recycling storage areas, such areas must be located and designed in a manner which reduces adverse impacts upon neighbouring properties and upon the appearance of the premises.
2. There must be an unobstructed and Continuous Accessible Path of Travel (as per *Australian Standard 1428 Design for Access and Mobility - 2001*) from the waste/ recycling storage area(s) or room(s) to:
  - a. the entry to any Adaptable Housing (as per *Australian Standard 4299 - Adaptable Housing, 1995*)
  - b. the principal entrance to each residential flat building
  - c. the point at which bins are collected/ emptied.
3. In instances where a proposal does not comply with these requirements, Council will consider alternative proposals that seek to achieve a reasonable level of access to waste/ recycling storage area(s) or room(s).
4. Communal waste storage areas must have adequate space to accommodate and manoeuvre Council's required number of waste and recycling containers.
5. Each service room and storage area must be located for convenient access by users and must be well ventilated and well lit.
6. Where site characteristics, number of bins and length of street frontage allow, bins may be collected from a kerbside location. In instances where kerbside bin collection is not appropriate, bins must be collected onsite. Bins that are collected onsite must be collected either from their usual storage point or from an onsite temporary holding area located inside the property boundary and close to a property entrance.
7. Where bins cannot be collected from a kerbside location or from a temporary holding area located immediately inside the property boundary, the development must be designed to allow for onsite access by garbage collection vehicles (of dimensions detailed at **Appendix F - Garbage Truck Dimensions for Residential Waste Collection**). In these instances, the site must be configured so as to allow collection vehicles to enter and exit the site in a forward direction and so that collection vehicles do not impede general access to, from or within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.

**Note.** As a minimum requirement for collection vehicle access, Council will require indemnity against claims for loss or damage to the pavement or other driving surface. Council may also require indemnity against liabilities, losses, damages and any other demands arising from any onsite collection service. In all cases, a hazard assessment will need to be conducted prior to Council agreeing to undertake the service.

Should a collection vehicle be required to enter a property, access driveways and internal roads must be designed in accordance with *Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities, 2002*, and must comply with any relevant Council standards.

1. If Council waste collectors and/or waste collection vehicles are required to enter a site for the purpose of emptying bins, then site specific arrangements must be in place.
2. If bins need to be moved from normal storage areas to a different location for collection purposes, it is the responsibility of agents of the owners' corporation to move the bins to the collection point no earlier than the evening before collection day and to then return the bins to their storage areas no later than the evening of collection day. Bins must remain in their onsite storage areas at all other times.
3. Residents must have access to a cold water supply for the cleaning of bins and the waste storage areas. Storage areas must be constructed and designed to be weather proof and easy to clean, with wastewater discharged to sewer.
4. The design and location of waste storage areas/ facilities must be such that they complement the design of both the development and the surrounding streetscape.
5. The SWMMP must include measures to ensure that agents of the owners' corporation will take responsibility for the management of waste and recyclable materials generated upon the site.

Arrangements must be in place in regards to the management, maintenance and cleaning of all waste/ recycling management facilities.

**Note.** There is a general trend towards recycling of food and garden waste, either via onsite processes such as composting, worm farms or mulching, or via kerbside collections for garden waste or food and garden waste. This can be difficult to manage in a multi-dwelling complex, particularly where communal bin storage areas are used and bins are shared. Consideration should be given to provision of an individual compost container for each dwelling (such as in townhouse and villa developments), or for a communal compost container; the siting of which will have regard to potential amenity impacts.

### 4.3 Commercial and Retail Development

#### Objectives

- *To specify recycling and waste management criteria that apply to commercial and retail development.*
- *To ensure that new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling); and to ensure that appropriate well-designed storage and collection facilities are accessible to occupants and service providers.*
- *To ensure appropriate waste storage and collection facilities.*
- *To maximise source separation and recovery of recyclables.*
- *To ensure that waste management systems are as intuitive for occupants as possible and readily accessible to occupants and service providers.*
- *To ensure appropriate resourcing of waste management systems, including servicing.*
- *To minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.*
- *To minimise adverse environmental impacts associated with waste management.*
- *To discourage illegal dumping by providing onsite storage, and removal services.*

#### Performance Criteria

There are no Performance Criteria.

#### Acceptable Solutions

This element applies to commercial and retail development.

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications. Plans submitted with the development application and SWMMP must show:

1. The location of the designated waste and recycling storage room(s) or areas, sized to meet the waste and recycling needs of all tenants.
2. The location of temporary waste and recycling storage areas within each tenancy.
3. These are to be of sufficient size to store a minimum of one day's worth of waste.
4. An identified collection point for the collection and emptying of waste, recycling and garden waste bins.
5. The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area).
6. The onsite path of travel for collection vehicles (if collection is to occur onsite).

The SWWMP must address and demonstrate that the following criteria and outcomes will be achieved:

1. There must be convenient access from each tenancy to the waste/ recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected/ emptied and the waste/ recycling storage room(s) or area(s).
2. Every development must include a designated waste/ recycling storage area or room(s) (designed in accordance with **Appendix G - Commercial/ Industrial Waste and Recycling Storage Areas**).
3. Depending upon the size and type of the development, it may be necessary to include a separate waste/ recycling storage room/ area for each tenancy.
4. All commercial tenants must keep written evidence onsite of a valid contract with a licensed waste contractor for the regular collection and disposal of the waste and recyclables that are generated onsite.
5. Between collection periods, all waste/ recyclable materials generated onsite must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/ recycling storage room(s) or area(s).
6. Arrangements must be in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in all parts of the development for the movement of recyclable materials and general waste to the main waste/ recycling storage room/ area. For multiple storey buildings, this might involve the use of a goods lift.
7. The waste/ recycling storage room/ area must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated (at the rate described in **Appendix C - Waste/ Recycling Generation Rates**) between collections.
8. The waste/ recycling storage room/ area must provide separate containers for the separation of recyclable materials from general waste. Standard and consistent signage on how to use the waste management facilities should be clearly displayed.
9. The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
10. Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
11. Where possible, waste/ recycling containers should be collected from a rear lane access point. The servicing location and methodology shall minimise adverse impacts upon residential amenity, pedestrian movements and vehicle movements.
12. The size and layout of the waste/ recycling storage room/ area must be capable of accommodating reasonable future changes in use of the development.
13. A waste/ recycling cupboard must be provided for each and every kitchen area in a development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. Each waste/ recycling cupboard must be of sufficient size to hold a minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.
14. Premises which generate at least 240 litres per week of meat, seafood, poultry or food waste must have that waste collected in mobile garbage bins (wheelie bins) at least twice weekly or must store that waste in a dedicated and refrigerated waste storage area until collection.
15. Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.

#### 4.4 Mixed Use Development

##### Objectives

- *To ensure that new developments and changes to existing development are designed to maximise resource recovery (through waste avoidance, source separation and recycling) and to ensure appropriate, well-designed storage and collection facilities are accessible to occupants and service providers.*



- *To ensure appropriate waste storage and collection facilities.*
- *To maximise source separation and recovery of recyclables.*
- *To ensure waste management facilities are safely and easily accessible to occupants and service providers.*
- *To ensure appropriate resourcing of waste management systems, including servicing.*
- *To minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.*
- *To minimise adverse environmental impacts associated with waste management.*
- *To discourage illegal dumping by providing onsite storage, and removal services.*

### **Performance Criteria**

There are no Performance Criteria.

### **Acceptable Solutions**

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications. The SWMMP must address and demonstrate that the following criteria and outcomes will be achieved:

1. The provisions of Clause 4.2 – Multi Dwelling Housing and Residential Flat Buildings apply to the residential component of mixed use development.
2. The provisions of Clause 4.3 – Commercial and Retail Development apply to the non-residential component of mixed use development.
3. Mixed Use development must incorporate separate and self-contained waste management systems for the residential component and the non-residential component. In particular, the development must incorporate separate waste/ recycling storage rooms/ areas for the residential and non-residential components. Commercial tenants must be prevented (via signage and other means), from using the residential waste/ recycling bins and vice versa.
4. The residential waste management system and the non-residential waste management system must be designed so that they can efficiently operate without conflict. Conflict may potentially occur between residential and non-residential storage, collection and removal systems, and between these systems and the surrounding land uses. For example, collection vehicles disrupting peak residential and commercial traffic flows or causing noise issues when residents are sleeping.

## **4.5 Industrial Development**

### **Objectives**

- *To ensure that new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling) and to ensure appropriate, well designed storage and collection facilities are accessible to occupants and service providers.*
- *To ensure appropriate waste storage and collection facilities.*
- *To maximise source separation and recovery of recyclables.*
- *To ensure that waste management facilities are as intuitive for occupants as possible and readily accessible to occupants and service providers.*
- *To ensure appropriate resourcing of waste management systems, including servicing.*
- *To minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.*
- *To minimise adverse environmental impacts associated with waste management.*
- *To discourage illegal dumping by providing onsite storage, and removal services.*

### **Performance Criteria**

There are no Performance Criteria.

## Acceptable Solutions

This element applies to Industrial and other similar development types.

A Site Waste Minimisation and Management Plan (SWMMP) must be submitted with development applications. Plans submitted with the SWMMP must show:

1. The location of designated waste and recycling storage room(s) or areas sized to meet the waste and recycling needs of all tenants. Waste should be separated into at least three (3) streams, paper/ cardboard and recyclables, general waste, and industrial process type wastes.
2. The onsite path of travel for collection vehicles.

The SWMMP must address and demonstrate that the following criteria and outcomes will be achieved:

1. The SWMMP must provide evidence of compliance with any specific industrial waste laws/ protocols. For example, those related to production, storage and disposal of industrial and hazardous wastes as defined by the *Protection of the Environment Operations Act, 1997*.
2. There must be convenient access from each tenancy and/or larger waste producing area of the development to the waste/ recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected/ emptied and the waste/ recycling storage room(s) or area(s).
3. Every development must include a designated general waste/ recycling storage area or room(s) (designed in accordance with **Appendix G - Commercial/ Industrial Waste and Recycling Storage Areas**), as well as designated storage areas for industrial waste streams (designed in accordance with specific waste laws/ protocols).
4. Depending upon the size and type of the development, it might need to include separate waste/ recycling storage room/ area for each tenancy and/or larger waste producing areas.
5. All tenants must keep written evidence onsite of a valid contract with a licensed waste contractor for the regular collection and disposal of all the waste streams and recyclables which are generated onsite.
6. Between collection periods, all waste/ recyclable materials generated onsite must be kept in enclosed bins with securely fitted lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/ recycling storage room(s) or area(s).
7. Arrangements must be in place in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in place in all parts of the development for the movement of recyclable materials and general waste to the main waste/ recycling storage room/ area.
8. The waste/ recycling storage room/ areas must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated between collections.
9. The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
10. Waste management storage rooms/ areas must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
11. A waste/ recycling cupboard must be provided for each and every kitchen area in the development. Each waste/ recycling cupboard must be of sufficient size to hold a minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.
12. Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.
13. Production, storage and disposal of hazardous wastes (such as contaminated or toxic material or products) require particular attention. The appropriate laws and protocols must be observed.

## Appendix A: Site Waste Minimisation and Management Plan Template

**Note.** The level of detail required for the Site Waste Minimisation and Management Plan (SWMMP) will vary with the size and complexity of the proposed development.

Applicant and Project Details (all developments other than dwelling houses, semi-detached dwellings, dual occupancies and ancillary structures)	
<b>Applicant Details</b>	
Name	
Address	
Phone number(s)	
Email	
<b>Project Details</b>	
Address of development	
Existing buildings and other structures currently onsite	
Description of proposed development	
<p><i>This development achieves the waste objectives set out in the DCP. The details on this form are the provisions for minimising waste on this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as Council, EPA or WorkCover NSW.</i></p>	
Name	
Signature	
Date	

**Demolition (all types of development other than dwelling houses, semi-detached dwellings, dual occupancies and ancillary structures)**

**Address of Development:** \_\_\_\_\_

Refer to Section 3.2 of the DCP for objectives regarding demolition waste.

Type of waste generated	Reuse Estimate volume (m <sup>3</sup> ) or weight (t)	Recycle Estimate volume (m <sup>3</sup> ) or weight (t)	Disposal Estimate volume (m <sup>3</sup> ) or weight (t)	Specify method of onsite reuse, contactor and recycling outlet and/or waste depot to be used
Excavation material				
Timber (specify)				
Concrete				
Bricks/pavers				
Tiles				
Metal (specify)				
Glass				
Furniture				
Fixtures and fittings				
Floor coverings				
Packaging (pallets and pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/ cardboard				
Residual waste				
Hazardous/ special waste eg asbestos				
Other (specify)				

**Construction (all types of development other than dwelling houses, semi-detached dwellings, dual occupancies and ancillary structures)**

**Address of Development:** \_\_\_\_\_

Refer to Section 3.2 of the DCP for objectives regarding demolition waste.

Type of waste generated	Reuse Estimate volume (m <sup>3</sup> ) or weight (t)	Recycle Estimate volume (m <sup>3</sup> ) or weight (t)	Disposal Estimate volume (m <sup>3</sup> ) or weight (t)	Specify method of onsite reuse, contactor and recycling outlet and/or waste depot to be used
Excavation material				
Timber (specify)				
Concrete				
Bricks/ pavers				
Tiles				
Metal (specify)				
Glass				
Furniture				
Fixtures and fittings				
Floor coverings				
Packaging (pallets and pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/ cardboard				
Residual waste				
Hazardous/ special waste eg asbestos				
Other (specify)				

**Ongoing Operation (residential flat buildings, multi dwelling housing, commercial, mixed use and industrial)**

**Address of development:** \_\_\_\_\_

Show the total volume of waste expected to be generated by the development and the associated waste storage requirements.

	Recyclables		Compostable	Residual Waste	Other
	Paper/ cardboard	Metals/ glass/ plastics			
Amount generated (L per unit per day)					
Amount generated (L per development per week)					
Any reduction due to compacting equipment					
Frequency of collections (per week)					
Number and size of storage bins required					
Floor area required for manoeuvrability (m <sup>2</sup> )					
Height required for manoeuvrability (m)					



## Plans and Drawings (all types of development other than dwelling houses, semi-detached dwellings, dual occupancies and ancillary structures)

The following checklists are designed to help ensure SWMMPs are accompanied by sufficient information to allow assessment of the application.

Drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during:

- Demolition
- Construction
- Ongoing operation

### Demolition

Refer to Section 3.2 of the DCP for specific objectives and measures.

Do the site plans detail/ indicate:

	Tick Yes ✓
Size and location(s) of waste storage area(s)	
Access for waste collection vehicles	
Areas to be excavated	
Types and numbers of storage bins likely to be required	
Signage required to facilitate correct use of storage facilities	

### Construction

Refer to Section 3.2 of the DCP for specific objectives and measures.

Do the site plans detail/ indicate:

	Tick Yes ✓
Size and location(s) of waste storage area(s)	
Access for waste collection vehicles	
Areas to be excavated	
Types and numbers of storage bins likely to be required	
Signage required to facilitate correct use of storage facilities	



## Ongoing Operation

Refer to Section 4 of the DCP for specific objectives and measures.

Do the site plans detail/ indicate:

	Tick Yes ✓
<b>Space</b>	
Size and location(s) of waste storage areas	
Recycling bins placed next to residual waste bins	
Space provided for access to and the manoeuvring of bins	
Any additional facilities	
<b>Access</b>	
Access route(s) to deposit waste in storage room/ area	
Access route(s) to collect waste from storage area	
Bin carting grade	
Location of final collection point	
Clearance, geometric design and strength of internal access driveways and roads	
Direction of traffic flow for internal access driveways and roads	
<b>Amenity</b>	
Aesthetic design of waste storage areas	
Signage- type and location	
Construction details of storage rooms/ areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions etc)	

## Appendix B: Waste Minimisation Template Checklist for Dwellings

**Note.** This waste minimisation template checklist for new dwelling houses, semi-detached dwellings and dual occupancies can be used to satisfy the performance criteria of Section 4.1 of this chapter.

Applicant and project details (dwelling houses, semi-detached dwellings and dual occupancies)	
<b>Applicant details</b>	
Name	
Address	
Phone number(s)	
Email	
<b>Project details</b>	
Address of development	
Existing buildings and other structures currently onsite	
Description of proposed development	
<b>Waste management requirements</b>	<b>Tick Yes ✓</b>
Location(s) of indoor waste and recycling storage area(s) on floor plan	
Location of onsite waste/recycling storage area for each dwelling on site plan. Located at the rear of the dwelling or appropriately screened if to the side of the dwelling or forward of the building line	
Designated composting area that will not adversely impact on adjoining landholders marked on site plan	
Building materials and equipment will be stored wholly within the work site unless an approval to store them elsewhere is held	
Waste materials to be recycled and disposed of at a waste management facility	
The work site will be left clear of waste and debris at the completion of the works	

## Appendix C: Waste/ Recycling Generation Rates

### Construction Waste

'Rule of Thumb' for renovations and small home building:

- Timber 5-7% of material ordered
- Plasterboard 5-20% of materials ordered
- Concrete 3-5% of material ordered
- Bricks 5-10% of material ordered
- Tiles 2-5% of material ordered

### Ongoing Operation

Premises type	Waste generation	Recyclable material generation
Backpackers' accommodation	40L/occupant space/week	20L/occupant space/week
Boarding house, tourist and visitor accommodation	60L/occupant space/week	20L/occupant space/week
<b>Food and drink premises/ food shops:</b>		
Butcher	80L/100m <sup>2</sup> floor area/day	Variable
Delicatessen	80L/100m <sup>2</sup> floor area/day	Variable
Fish shop	80L/100m <sup>2</sup> floor area/day	Variable
Green grocer	240L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup> floor area/day
Restaurant or cafe	10L/1.5m <sup>2</sup> floor area/day	2L/1.5m <sup>2</sup> floor area/ day
Supermarket	240L/100m <sup>2</sup> floor area/day	240L/100m <sup>2</sup> floor area/day
Takeaway food and drink premises	80L/100m <sup>2</sup> floor area/day	Variable
Hairdresser/ beauty salon	60L/100m <sup>2</sup> floor area/day	Variable
Pub, registered club, hotel or motel accommodation	5L/bed space/day 50L/100m <sup>2</sup> bar area/day 10L/1.5m <sup>2</sup> dining area/day	1L/bed space/day 50L/100m <sup>2</sup> bar area/day 50L/1.5m <sup>2</sup> dining area/day
Office premises	10L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
Shop less than 100m <sup>2</sup> floor area	50L/100m <sup>2</sup> floor area/day	25L/100m <sup>2</sup> floor area/day
Shop greater than 100m <sup>2</sup> floor area	50L/100m <sup>2</sup> floor area/day	50L/100m <sup>2</sup> floor area/day
Showroom	40L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
Multi dwelling housing, residential flat buildings	80L/unit/week	40L/unit/week

## Appendix D: Bin sizes and available services

Bin size	Height	Depth	Width	Waste type
140L Bin	1,065mm	615mm	535mm	W, O, R
240L Bin	1,060mm	730mm	535mm	W, O, R
360L Bin	1,100mm	848mm	680mm	R
660L Bin	1,200mm	780mm	1,260mm	W, R
1,100L Bin	1,330mm	1,070mm	1,240mm	W, R

### Waste Type

W = Waste

O = Organics

R = Recycling

## Appendix E: Waste Recycling/ Storage Rooms in Multi Dwelling Housing and Residential Flat Buildings

### Building Code of Australia

Waste/ recycling bin storage rooms must be constructed in accordance with the requirements of the *Building Code of Australia (BCA)*.

### Location and Appearance

- Bin storage rooms must be integrated into the design of the overall development. It is preferable that such rooms be located behind the front building line. Where possible, the room should be in a basement location within the main building envelope (rather than a stand alone structure). Materials and finishes visible from the outside should be similar in style and quality to the external materials used in the rest of the development.
- Waste/ recycling bin storage rooms must be located and designed in a manner that reduces adverse impacts on the inhabitants of any dwellings on the site and upon neighbouring properties. The location and design of the room should minimise impacts associated with:
  - The proximity of the room to any dwellings
  - The visibility of the room
  - Noise generated by any equipment located within the room
  - Noise generated by the movement of bins into and out of the room
  - Noise generated by collection vehicles accessing the site; and
  - Odours emanating from the room

### Size

Waste/ recycling storage rooms must be of adequate size to comfortably accommodate all waste, recycling and organics bins associated with the development.

### Layout

The gradient of bin storage room floors and the gradient of any associated access ramps must be sufficiently level so that access for the purpose of emptying containers can occur in accordance with WorkCover NSW Occupational Health and Safety Requirements.

Within the bin storage rooms, containers used for recyclable materials should be kept separate from (but close to) general waste containers so that the potential for contamination of recyclable materials is minimised.

## Appendix F: Garbage Truck Dimensions for Residential Waste Collection

This page includes information regarding the dimensions of garbage trucks that are typically used for the collection of residential waste. Developments that require Council garbage trucks to enter the site for the collection of residual waste must be designed to accommodate onsite truck movement.

Requirements regarding vehicle turning circles and driveway width/ gradient are contained in *Australian Standards 2890.2 2002/Planning Facilities- off street commercial vehicles*.

It is recommended that an applicant speak with Council's Waste Services Coordinator in regards to the design of development proposals that involve garbage trucks entering the site. Services will not be provided where there are undue risks.

Typical Council Garbage Truck Dimensions:

<b>Length</b>	9.4 metres
<b>Width</b>	2.84 metres (including mirrors)
	2.25 metres (excluding mirrors)
<b>Height</b>	3.63 metres (operational and travel)
<b>Weight</b>	13 tonne (vehicle only)
	24 tonne (vehicle and load)
<b>Turning circle</b>	20 metres

## Appendix G: Commercial/ Industrial Waste and Recycling Storage Areas

### Building Code of Australia

Waste/ recycling bin storage areas must be constructed in accordance with the requirements of the Building Code of Australia (BCA).

### Location and appearance

- Waste/ recycling bin storage areas must be integrated into the design of the overall development. Materials and finishes that are visible from outside should be similar in style and quality to the external materials used in the rest of the development.
- Waste/ recycling bin storage areas must be located and designed in a manner that reduces adverse impacts upon neighbouring properties and the streetscape. The location and design of the areas should minimise adverse effects associated with:
  - The proximity of the area to dwellings
  - The visibility of the area
  - Noise generated by any equipment located within the area
  - Noise generated by the movement of bins into and out of the area
  - Noise generated by collection vehicles accessing the site; and
  - Odours emanating from the area.

### Size

Waste/ recycling bin storage areas must be of adequate size to comfortably accommodate all waste/ recycling bins associated with the development.

Waste/ recycling bin storage areas must be able to accommodate separate general waste, recycling and organics bins which are of sufficient volume to contain the quantity of waste generated (at the rate described in Appendix B) between collections.

### Layout

The gradient of waste/ recycling bin storage area floors and the gradient of any associated access ramps must be sufficiently level so that access for the purposes of emptying bins can occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

Within bin storage areas, bins used for the storage of recyclable materials should be kept separate from (but near to) other bins so that the potential for contamination is minimised.

### Access: Waste/ Recycling/ Organics Collection

- The development must be designed to allow access by collection vehicles used by the nominated waste contractor. Where possible the site must be configured to allow collection vehicles to enter and exit the site in a forward direction and so collection vehicles do not impede general access to, from and within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.
- Servicing arrangements for the emptying of bins must be compatible with the operation of any other loading or unloading facilities onsite.
- Access for the purpose of emptying waste/ recycling/ organics bins must be able to occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

## Access: General

- In commercial development, public buildings and industrial development, there must be convenient access from each tenancy to the bin storage area. There must be step free access between the point at which the bins are collected/ emptied and the bin storage areas.
- Arrangements must be in place so that the bin storage area is not accessible to the public.
- Vermin must be prevented from entering the bin storage area.

## Surfaces

Waste/ recycling/ organics bin storage areas must have a smooth, durable floor and must be enclosed with durable walls/ fences that extend to the height of any bins which are kept within.

## Doors/ gates

Doors/ gates to bin storage areas must be durable. There must be a sign adjacent to the door/ gate that indicates the door/ gate must remain closed when not in use. All doors/ gates are to be able to be opened from both inside and outside the storage area and must be wide enough to allow for the easy passage of bins.

## Services

Waste/ recycling/ organics storage areas must be serviced by hot and cold water provided through a centralised mixing valve. The hose cock must be protected from the bins and be located in a position that is easily accessible when the area is filled with waste/ recycling/ organics bins.

The floor must be graded so that any water is directed to a sewer authority approved drainage connection located upon the site.

## Signage

Waste/ recycling/ organics bin storage areas must include signage that clearly describes the types of materials that can be deposited into each bin type.

## Management

Arrangements must be in place for the regular maintenance and cleaning of bin storage areas. Bins must only be washed in an area which drains to a sewer authority approved drainage connection.

The *Better Practice Guide for Waste Management in Multi-Unit Dwellings* gives detailed information about waste/ recycling/ organics bin storage rooms and facilities. The guide was substantially reviewed in 2007 and is available on the EPA website ([www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)). Further updates will be published as further information from social research and waste stream audits becomes available.



## Appendix H: Examples of Completed Waste Management Plan Components

Details of waste storage and sorting areas and vehicular access (including disposal trucks) are to be provided on plan drawings. The plan should also indicate the number of, type and site of bins and storage for destruction, construction and ongoing use.

### Example: A Shopping Centre Development

Address of Development: \_\_\_\_\_

	Reuse	Recycle	Disposal	
Type of waste generated	Estimate volume (m <sup>3</sup> ) or weight (t)	Estimate volume (m <sup>3</sup> ) or weight (t)	Estimate volume (m <sup>3</sup> ) or weight (t)	Specify method of onsite reuse, contactor and recycling outlet and/or waste depot to be used
Excavation material	300m <sup>3</sup>			Landscaping
Timber (specify)	2m <sup>2</sup>			Reuse on other jobs
Concrete			10m <sup>3</sup>	LRRF
Bricks/ pavers	6m <sup>3</sup>			Drainage trench
Tiles			1m <sup>3</sup>	LRRF
Metal (specify)			4m <sup>3</sup>	LRRF
Glass				Beverage containers to be separated from building glass
Furniture				Charity store
Fixtures and fittings				Demolition yard
Floor coverings				
Packaging (pallets and pallet wrap)			2m <sup>3</sup>	LRRF
Garden organics	4m <sup>3</sup>	mulched		Used onsite
Containers (cans, plastic, glass)		1m <sup>3</sup>		LRRF
Paper/ cardboard		5m <sup>3</sup>		LRRF or gardens
Residual waste			12m <sup>3</sup>	LRRF
Hazardous/ special waste eg asbestos				LRRF
Other (specify)				

Example C: Completed form: 'Site Plan' for 6 unit shopping mall

