



# Byron Shire Development Control Plan 2014

## Chapter B8 Waste Minimisation and Management



PO Box 219 Mullumbimby NSW 2482  
70-90 Station Street  
DX20007 Mullumbimby  
P: 02 6626 7000 F: 02 6684 3018

E: [council@byron.nsw.gov.au](mailto:council@byron.nsw.gov.au) W: [www.byron.nsw.gov.au](http://www.byron.nsw.gov.au)

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## Chapter B8 – Waste Minimisation and Management

### Contents

<b>B8.1</b>	<b>Introduction</b> .....	<b>5</b>
B8.1.1	Purpose of this Chapter .....	5
B8.1.2	Aims of this Chapter .....	5
B8.1.3	Application of this Chapter .....	6
B8.1.4	Abbreviations .....	7
<b>B8.2</b>	<b>Submission Requirements for DAs</b> .....	<b>7</b>
B8.2.1	Documentation required for all DAs.....	7
B8.2.2	Site Waste Minimisation and Management Plans .....	7
B8.2.3	Waste/Recycling Generation Rates.....	8
<b>B8.3</b>	<b>General Development Criteria</b> .....	<b>8</b>
B8.3.1	Demolition of Buildings or Structures.....	8
B8.3.2	Construction of Buildings or Structures .....	10
B8.3.3	Bin Sizes and Collection Measures .....	11
<b>B8.4</b>	<b>Specific Development Criteria</b> .....	<b>12</b>
B8.4.1	Dwelling Houses, Semi Detached Dwellings and Dual Occupancies.....	12
B8.4.2	Multi Dwelling Housing, Residential Flat Buildings and Attached Dwellings .....	14
B8.4.3	Tourist Accommodation and Commercial and Retail Development .....	17
B8.4.4	Mixed Use Development.....	19
B8.4.5	Industrial Development.....	20

### Tables

Table B8.1 – Examples of demolition materials and potential reuse/recycling opportunities .10

### Appendices

Appendix B8.1	Site Waste Minimisation and Management Plan Template (SWMMP).....	23
Appendix B8.2	Waste/Recycling Generation Rates .....	30
Appendix B8.3	Indicative Bin Sizes.....	31
Appendix B8.4	Waste Recycling/Storage Rooms in Multi Dwelling Housing .....	32
Appendix B8.5	Garbage Truck Dimensions for Residential Waste Collection .....	33
Appendix B8.6	Commercial/ Industrial Waste and Recycling Storage Areas .....	35



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## B8.1 Introduction

**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.

### B8.1.1 Purpose of this Chapter

This Chapter aims to facilitate sustainable **waste** management within Byron Shire in a manner consistent with the principles of ESD.

### B8.1.2 Aims of this Chapter

The Aims of this Chapter in pursuit of sustainable waste management include:

#### **Waste minimisation**

1. To minimise resource requirements and construction **waste** through reuse and recycling and the efficient selection and use of resources.
2. To minimise demolition **waste** by promoting adaptability in building design and focussing upon end of life deconstruction.

3. To encourage building designs, construction and demolition techniques in general which minimise **waste** generation.
4. To maximise reuse and recycling of household waste and industrial/commercial **waste**.

#### **Waste management**

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

### **B8.1.3 Application of this Chapter**

This Chapter 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 Chapter. 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*.

#### 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 Chapter. 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.

#### Exempt and Complying Development

Even though a **Site Waste Minimisation and Management Plan** is not required for exempt and complying development 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.

## B8.1.4 Abbreviations

The following abbreviations are used in this Chapter:

<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>SEE</b>	Statement of Environmental Effects
<b>The Act</b>	<i>Environmental Planning and Assessment Act, 1979</i>
<b>SWMMP</b>	<b>Site Waste Minimisation and Management Plan</b>

## B8.2 Submission Requirements for DAs

### B8.2.1 Documentation required for all DAs

The Statement of Environmental Effects submitted for all Development Applications must include a **Site Waste Minimisation and Management Plan (SWMMP)** that addresses the requirements of this 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.

### B8.2.2 Site Waste Minimisation and Management Plans

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 DA seeking consent for a single **dwelling house** would normally require a very simple **SWMMP**, while a DA 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 on site;
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 B8.1 provides a template for the compilation of a **SWMMP**.

Note: The following two documents that include useful information relating to managing and minimising waste in the development context and may be useful when preparing a Site Waste Minimisation and Management Plan:

Better Practice Guide for Waste Management in Multi-unit Dwellings, NSW Department of Environment & Climate Change, 2008

Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities', NSW Environment Protection Authority, 2012

### **B8.2.3 Waste/Recycling Generation Rates**

In the absence of project specific calculations, the rates specified in Appendix B8.2 - **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**.

## **B8.3 General Development Criteria**

### **B8.3.1 Demolition of Buildings or Structures**

#### **Objectives**

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

#### **Performance Criteria**

There are no Performance Criteria.



## Prescriptive Measures

1. 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:
  - a) pursue adaptive reuse opportunities of buildings/structures;
  - b) identify all **waste** likely to result from the demolition, and opportunities for reuse of materials. Refer to Table B8.1;
  - c) facilitate reuse/recycling by using the process of 'deconstruction', where various materials are carefully dismantled and sorted;
  - d) reuse or recycle salvaged materials on-site where possible;
  - e) 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);
  - f) provide separate collection bins or areas for the storage of residual **waste**;
  - g) clearly 'signpost' the purpose and content of the bins and storage areas;
  - h) implement measures to prevent damage by the elements, odour and health risks, and windborne litter;
  - i) minimise site disturbance, limiting unnecessary excavation.
2. When implementing the **SWMMP** the applicant must ensure that:
  - a) footpaths, public reserves, street gutters are not used as places to store demolition waste or materials of any kind without Council approval;
  - b) any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act (1997)*;
  - c) **waste** is only transported to a place that can lawfully be used as a **waste** facility;
  - d) 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 Occupational Health and Safety legislation administered by WorkCover NSW.;
  - e) documentary 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 B8.1 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 B8.1 – Examples of demolition materials and potential reuse/recycling opportunities**

<b>Material</b>	<b>Reuse/recycling potential</b>
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 on-site 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

**Source:** Based on the *Combined Sydney Regional Organisation of Councils Model DCP 1997*.

## **B8.3.2 Construction of Buildings or Structures**

### **Objectives**

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

## Performance Criteria

There are no Performance Criteria.

## Prescriptive Measures

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:

- a) 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 B8.2 for a guide;
- b) identify potential reuse/recycling opportunities of excess construction materials;
- c) incorporate the use of prefabricated components and recycled materials where possible;
- d) 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;
- e) consider organising to return excess materials to the supplier or manufacturer;
- f) allocate an area for the storage of materials for use, recycling and disposal (considering slope, drainage, location of waterways, stormwater outlets and vegetation);
- g) 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**;
- h) promote separate collection bins or areas for the storage of residual **waste**;
- i) clearly 'signpost' the purpose and content of the bins and storage areas;
- j) specify intended implementation measures to prevent damage by the elements, odour and health risks, and windborne litter;
- k) minimise site disturbance and limit unnecessary excavation;
- l) ensure that all **waste** is transported to a place that can lawfully be used as a **waste** facility;
- m) require retention of all records demonstrating lawful disposal of **waste** and keep them readily accessible for inspection by regulatory authorities such as council, DECC or WorkCover NSW.

### B8.3.3 Bin Sizes and Collection Measures

#### Objectives

1. *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.*
2. *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.*
3. *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 Byron Shire provide for two primary levels of on-site **waste** storage and collection facilities. Council provides a kerbside pickup service utilising 80 Litre, 140 Litre and 240 Litre 'wheelie bins'. For larger developments where **waste** generation is predicted to exceed the aforementioned capacities a bulk bin service is required, for which the land owner and/ or occupier must enter into a contractual arrangement with a service provider.

## Prescriptive Measures

1. The **SWMMMP** provided with the Development Application must specify the proposed bin sizes and collection arrangements for the development.
2. Where collection is proposed by Council's kerbside pickup service for development other than a **dwelling house**, the **SWMMMP** and Development Application must specify and illustrate in a site plan drawn to a readily legible scale:
  - a) the site's boundary dimensions and available kerbside/ road frontage space, after deducting existing or proposed access driveways;
  - b) 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.
3. If the kerbside/road frontage space intended to be occupied by 'wheelie bins', to service development other than a **dwelling house**, exceeds 75% of the site's available kerbside/road frontage space (after deducting existing or proposed access driveways), the **SWMMMP** 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.
4. Where collection is proposed other than by Council's kerbside pickup service, the **SWMMMP** and Development Application must specify and illustrate in a site plan drawn to a readily legible scale:
  - a) the proposed bin storage location, dimensions, pickup vehicle access and manoeuvring arrangements;
  - b) The proposed means of ensuring that the pickup vehicle can enter and exit the site in a forward direction and can manoeuvre safely on site, consistent with the requirements of Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access.

## B8.4 Specific Development Criteria

### B8.4.1 Dwelling Houses, Semi Detached Dwellings and Dual Occupancies

#### Objectives

1. *To encourage source separation of **waste**, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of **waste** facilities.*



2. To maximise reuse and recycling of materials.
3. To minimise **waste** generation.
4. To ensure appropriate collection and storage of **waste**.
5. To minimise the environmental impacts associated with **waste** management.
6. To avoid illegal dumping

### Performance Criteria

There are no Performance Criteria.

### Prescriptive Measures

A **Site Waste Minimisation and Management Plan (SWMMP)** is to be submitted with a Development Application and must show:

- a) the location of an indoor **waste/recycling cupboard** (or other appropriate storage space) for each **dwelling**;
- b) the location of an on-site **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 B8.3;
- c) an identified kerbside collection point for the collection and emptying of Council's **waste** and recycling bins.

In addition the **SWMMP** must:

- a) identify arrangements for **waste** container storage in a suitable location so as to avoid vandalism, nuisance and adverse visual impacts;
- b) demonstrate that any designated area for composting is not likely to adversely impact on adjoining properties;
- c) where possible, locate the **waste**/recycling storage area in the rear yard and minimise the distance of travel to the collection point;
- d) demonstrate that the **waste** storage area will be easily accessible and will have unobstructed access to Council's usual collection point;
- e) demonstrate that there will be sufficient space within the kitchen (or an alternate location) for the interim storage of **waste** and recyclables;
- f) demonstrate that the placement of bins for collection at the nominated collection point will ensure that adequate traffic and pedestrian safety is maintained.

Note 1: It is the responsibility of **dwelling** occupants to move bins to the identified collection point no earlier than the evening before collection day and to then return the bins to their storage area no later than the evening of collection day. Bins must remain in their on-site storage area at all other times.

Note 2: There is a general trend towards recycling of food and garden **waste**. Consideration should be given to provision of sufficient space in the **waste** storage area (or suitable alternate location) for a food/garden **waste** recycling bin (if in an urban area where collection of organic **waste** is available) and/or a compost bin/worm farm.

Service options available to **dwelling houses**, **semi-detached dwellings** and **dual occupancies** are described on the Byron Shire Council web site.



## B8.4.2 Multi Dwelling Housing, Residential Flat Buildings and Attached Dwellings

### Objectives

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

### Performance Criteria

There are no Performance Criteria.

### Prescriptive Measures

1. A **Site Waste Minimisation and Management Plan (SWMMP)** is to be submitted with a Development Application and must show:
  - a) the location of an **indoor waste/recycling cupboard** (or other appropriate storage space) for each **dwelling**;
  - b) 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;
  - c) the location of any interim storage facilities for recyclable materials;
  - d) the location of any **waste** compaction equipment;
  - e) an identified location for individual compost containers or communal compost container;
  - f) an identified collection point for the collection and emptying of Council's **waste** and recycling bins;
  - g) 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);
  - h) the on-site path of travel for collection vehicles (if collection is to occur on-site), taking into account accessibility, width, height and grade.
2. The **SWWMP** must address and demonstrate that the following criteria and outcomes will be achieved:
  - a) systems must be designed to maximise source separation and recovery of recyclables;



- b) **waste** management systems must be designed and operated to prevent the potential risk or injury or illness associated with the collection, storage and disposal of **wastes**.
3. The following minimum collection and storage facilities must be provided:
- a) each **dwelling** 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;
  - b) **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 B8.4 and the Better Practice Guide for Waste Management in Multi-Unit Dwellings.
  - c) **multi dwelling housing** and **attached dwellings** 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 B8.4 and the Better Practice Guide for Waste Management in Multi-Unit Dwellings;
  - d) 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;
  - e) for multi-storey developments that include ten 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;
4. The following location and design criteria apply to collection and storage facilities:
- a) in townhouse and villa developments with individual **waste/recycling** storage areas, such areas must be located and designed in a manner which minimises adverse impacts upon neighbouring properties and upon the appearance of the premises;
  - b) 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:
    - i) the entry to any **adaptable housing** (as per Australian Standard 4299 Adaptable Housing - 1995),
    - ii) the principal entrance to each **residential flat building**,
    - iii) the point at which bins are collected/emptied;
  - c) 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);
  - d) communal **waste** storage areas must have adequate space to accommodate and manoeuvre Council's required number of **waste** and recycling containers;
  - e) each service room and storage area must be located for convenient access by users and must be well ventilated and well lit;
  - f) 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 on-site. Bins that are collected

on-site must be collected either from their usual storage point or from an on-site temporary holding area located inside the property boundary and close to a property entrance;

- g) 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 on-site access by garbage collection vehicles (of dimensions detailed at Appendix B8.5). 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. All access design must be consistent with the requirements of Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access;

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 on-site 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 the provisions of Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access.

- h) 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;
  - i) 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 on-site storage areas at all other times;
  - j) 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;
  - k) 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: Food and garden **waste** may be recycled either via on-site 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.

Service options available to **multi dwelling housing, residential flat buildings and attached dwellings** are described on the Byron Shire Council web site.





### B8.4.3 Tourist Accommodation and Commercial and Retail Development

This Section applies to development to which Chapters D4 Commercial and Retail Development and D3 Tourist Accommodation apply.

#### Objectives

1. To specify recycling and **waste** management criteria that apply to development.
2. 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.
3. To ensure provision of appropriate **waste** storage and collection facilities.
4. To maximise source separation and recovery of recyclables.
5. To ensure that **waste** management systems are as intuitive for occupants as possible and readily accessible to occupants and service providers.
6. To ensure appropriate resourcing of **waste** management systems, including servicing.
7. To minimise risk to health and safety associated with handling and disposal of **waste** and recycled material and ensure optimum hygiene.
8. To minimise adverse environmental impacts associated with **waste** management.
9. To discourage illegal dumping by providing on-site storage, and removal services.

#### Performance Criteria

There are no Performance Criteria.

#### Prescriptive Measures

1. A **Site Waste Minimisation and Management Plan (SWMMP)** is to be submitted with a development application and must show:
  - a) the location of the designated **waste** and recycling storage room(s) or areas, sized to meet the **waste** and recycling needs of all tenants;
  - b) the location of temporary **waste** and recycling storage areas within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of **waste**;
  - c) an identified collection point for the collection and emptying of **waste**, recycling and garden **waste** bins;
  - d) 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);
  - e) the on-site path of travel for collection vehicles (if collection is to occur on-site).
2. The **SWWMP** must address and demonstrate that the following criteria and outcomes will be achieved:
  - a) 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);
  - b) every development must include a designated **waste**/recycling storage area or room(s) (designed in accordance with Appendix B8.6);

- c) 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;
- d) all commercial tenants must keep written evidence on-site of a valid contract with a licensed **waste** contractor for the regular collection and disposal of the **waste** and recyclables that are generated on site;
- e) between collection periods, all **waste**/recyclable materials generated on site 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);
- f) arrangements must be in all parts of the development for the separation of recyclable materials from general **waste** and 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;
- g) 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 B8.2) between collections;
- h) 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;
- i) 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;
- j) **waste** management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system;
- k) 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;
- l) the size and layout of the **waste**/recycling storage room/area must be capable of accommodating reasonable future changes in use of the development;
- m) 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;
- n) 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;
- o) 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.

Service options available to Commercial Developments are described on the Byron Shire Council web site

Where the type of tenancies are unknown at construction stage applicants should indicate in the SWMMP the likely land uses that may be housed in the proposed building/s and



demonstrate the development can flexibly accommodate this range of uses in accordance with Prescriptive measures 1 and 2 above.

Flexibility could be incorporated into building design by:

- identifying waste storage and collection point locations that would enable onsite collection in the future
- avoiding potential obstacles that could limit bin size in waste storage areas e.g. fixed structures to separate individual bins or bays.
- Incorporating access paths and doorways that are larger than the minimum widths required to allow for potential changes in bin size e.g. double doors on a waste storage area.
- Sizing bin storage areas to allow for a potential increase in waste generation.

[Source: Draft Commercial & Industrial Waste Management Guidelines (WA Waste Authority, undated)]

## B8.4.4 Mixed Use Development

### Objectives

1. *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.*
2. *To ensure appropriate **waste** storage and collection facilities.*
3. *To maximise source separation and recovery of recyclables.*
4. *To ensure **waste** management facilities are safely and easily accessible to occupants and service providers.*
5. *To ensure appropriate resourcing of **waste** management systems, including servicing.*
6. *To minimise risk to health and safety associated with handling and disposal of **waste** and recycled material and ensure optimum hygiene.*
7. *To minimise adverse environmental impacts associated with **waste** management.*
8. *To discourage illegal dumping by providing on-site storage, and removal services.*

### Performance Criteria

There are no Performance Criteria.

### Prescriptive Measures

A **Site Waste Minimisation and Management Plan (SWMMP)** must be submitted with a development application for **mixed use development**. The **SWWMP** must address and demonstrate that the following criteria and outcomes will be achieved:

- a) the provisions of Section B8.4.2 apply to the residential component of **mixed use development**;
- b) the provisions of Section B8.4.3 apply to the non-residential component of **mixed use development**;

- c) **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;
- d) 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.

Service options available to **mixed use development** are described on the Byron Shire Council web site.

## B8.4.5 Industrial Development

### Objectives

1. *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.*
2. *To ensure appropriate **waste** storage and collection facilities.*
3. *To maximise source separation and recovery of recyclables.*
4. *To ensure that **waste** management facilities are as intuitive for occupants as possible and readily accessible to occupants and service providers.*
5. *To ensure appropriate resourcing of **waste** management systems, including servicing.*
6. *To minimise risk to health and safety associated with handling and disposal of **waste** and recycled material and ensure optimum hygiene.*
7. *To minimise adverse environmental impacts associated with **waste** management.*
8. *To discourage illegal dumping by providing on site storage, and removal services.*

### Performance Criteria

There are no Performance Criteria.

### Prescriptive Measures

This Section applies to Industrial and other development referred to in Chapter D5 Industrial Development.

1. A **Site Waste Minimisation and Management Plan (SWMMP)** is to be submitted with a Development Application and must show:
  - a) 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 3 streams, paper/cardboard and recyclables, general **waste**, industrial process type **wastes**;



- b) the on-site path of travel for collection vehicles.
2. The **SWWMP** must address and demonstrate that the following criteria and outcomes will be achieved:
- a) 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*.
  - b) 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);
  - c) every development must include a designated general **waste**/recycling storage area or room(s) (designed in accordance with Appendix B8.6), as well as designated storage areas for industrial **waste** streams (designed in accordance with specific **waste** laws/protocols);
  - d) 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;
  - e) all tenants must keep written evidence on site 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 on site;
  - f) between collection periods, all **waste**/recyclable materials generated on-site 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);
  - g) 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;
  - h) 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;
  - i) 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;
  - j) **waste** management storage rooms/areas must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system;
  - k) 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;
  - l) 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;

- m) 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.

Service options available to Industrial developments are described on the Byron Shire Council web site



## Appendix B8.1 Site Waste Minimisation and Management Plan Template (SWMMP)

**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. For example, a DA seeking consent for a **dwelling house** would normally require a very simple **SWMMP**, while a DA 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.

### Applicant and Project Details (All Developments)

#### Applicant Details

Application No.	
Name	
Address	
Phone number(s)	
Email	

#### Project Details

Address of development	
Existing buildings and other structures currently on the site	
Description of proposed development	
<i>This development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, DECC or WorkCover NSW.</i>	
Name	
Signature	
Date	



## Demolition (All Types of Developments)

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

Refer to Section B8.3.1 for objectives regarding demolition waste.

favourable      most favourable            least

	Reuse	Recycling	Disposal	
<b>Type of waste generated</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Specify method of on-site reuse, contractor and recycling outlet and /or waste depot to be used</b>
Excavation material				
Timber (specify)				
Concrete				
Bricks/pavers/tiles				
Metal (specify)				
Glass				
Furniture				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/asbestos waste (specify)				
Other (specify)				



## Construction (All Types of Developments)

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

Refer to Section B8.3.2 for objectives regarding construction

most favourable



least favourable

	Reuse	Recycling	Disposal	
<b>Type of waste generated</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Estimate Volume (m<sup>3</sup>) or Weight (t)</b>	<b>Specify method of on site reuse, contractor and recycling outlet and/or waste depot to be used</b>
Excavation material				
Timber (specify)				
Concrete				
Bricks				
Tiles				
Metal (specify)				
Glass				
Plasterboard (offcuts)				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/special waste (specify)				

**Ongoing Operation (Residential, Multi Unit, 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		Compostables	Residual waste*	Other
	Paper/ cardboard	Metals/ plastics/ glass			
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 storage bins (m <sup>2</sup> )					
Floor area required for manoeuvrability (m <sup>2</sup> )					
Height required for manoeuvrability (m)					

\* Current “non-recyclables” waste generation rates typically include food waste that might be further separated for composting.



## Construction Design (All Types of Developments)

Outline how measures for waste avoidance have been incorporated into the design, material purchasing and construction techniques of the development (refer to Section B8.3.2):

### Materials

### Lifecycle

Detail the arrangements that would be appropriate for the ongoing use of waste facilities as provided in the development. Identify each stage of waste transfer between residents' units/commercial tenancies and loading into the collection vehicle, detailing the responsibility for and location and frequency of, transfer and collection.

### Plans and Drawings (All Developments)

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:

1. demolition;
2. construction;
3. ongoing operation.

#### Demolition

Refer to Section B8.3.1 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 B8.3.2 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 B8.4 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/equipment	
Any additional facilities	
<b>Access</b>	
Access route(s) to deposit waste in storage room/area	
Access route(s) to collect waste from storage room/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 B8.2 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 material ordered
- Concrete 3-5% of material ordered
- Bricks 5-10% of material ordered
- Tiles 2-5% of material ordered

Source: *Waste Planning Guide for Development Application, Inner Sydney Waste Board, 1998*

### Ongoing Operation

Premises type	Waste generation	Recyclable material generation
<b>Backpackers' Accommodation</b>	40L/occupant space/week	20L/occupant space/week
<b>Boarding Houses, Tourist and Visitor Accommodation</b> (excluding <b>Hotel or Motel Accommodation</b> )	60L/occupant space/week	20L/occupant space/week
<b>Retail Premises</b> including:		
• Butcher	80L/100 sq m floor area/day	Variable
• Delicatessen	80L/100 sq m floor area/day	Variable
• Fish Shop	80L/100 sq m floor area/day	Variable
• Greengrocer	240L/100 sq m floor area/day	120L/100 sq m floor area/day
• Restaurant, Café	10L/1.5 sq m floor area/day	2L/1.5 sq m floor area/day
• Supermarket	240L/100 sq m floor area/day	240L/100 sq m floor area/day
• Takeaway food shop	80L/100 sq m floor area/day	Variable
Hairdresser, Beauty Salon	60L/100m <sup>2</sup> floor area/week	Variable
<b>Hotel or Motel Accommodation</b> , Licensed Club	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/100m <sup>2</sup> dining area/day
Offices	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
<b>Multi Dwelling Housing, Residential Flat Buildings and Attached Dwellings</b> <sup>1</sup>	80L/unit/week	40L/unit/week

Sources: Adapted from *Waverley Council Code for the Storage and Handling of Waste*.

<sup>1</sup> Appendix A, *Better Practice Guide For Waste Management In Multi-Unit Dwellings 2007*



## Appendix B8.3 Indicative Bin Sizes

Bin type	Height	Depth	Width
80 Litre Bin	870mm	530mm	450mm
120 Litre Bin	940mm	560mm	485mm
140 Litre Bin	1065mm	540mm	500mm
240 Litre Bin	1080mm	735mm	580mm
1 cubic metre	1400 mm	900 mm	900 mm
1.5 cubic metre	2000 mm	900 mm	900 mm
2 cubic metre	2000 mm	1200 mm	900 mm
3 cubic metre	2000 mm	1400 mm	1200 mm
4.5 cubic metre	2040mm	1470 mm	1800mm

**Note:** These dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids or are used with different lifting devices.

## Appendix B8.4 Waste Recycling/Storage Rooms in Multi Dwelling Housing

### Building Code of Australia

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

### Location and Appearance

1. **Waste**/recycling 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. Wherever possible, the room should be in a basement location within the main building envelope (rather than a separate stand-alone structure). Materials and finishes visible from outside should be similar in style and quality to the external materials used in the rest of the development.
2. **Waste**/recycling storage rooms must be located and designed in a manner that reduces adverse impacts upon the inhabitants of any **dwelling**s on the site and upon neighbouring properties. The location and design of the room should minimise adverse impacts associated with:
  - a) the proximity of the room to any **dwelling**s;
  - b) the visibility of the room;
  - c) noise generated by any equipment located within the room;
  - d) noise generated by the movement of bins into and out of the room ;
  - e) noise generated by collection vehicles accessing the site; and
  - f) odours emanating from the room.

### Size

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

### Layout

The gradient of **waste**/recycling 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 **waste**/recycling storage rooms, containers used for the storage of recyclable materials should be kept separate from (but close to) general **waste** containers — so that the potential for contamination of recyclable materials is minimised.



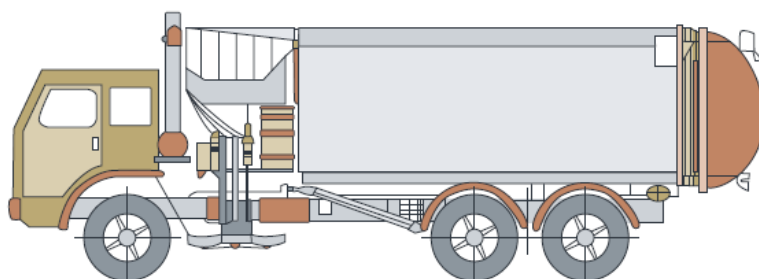
## Appendix B8.5 Garbage Truck Dimensions for Residential Waste Collection

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 residential **waste** must be designed to accommodate on-site truck movement.

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

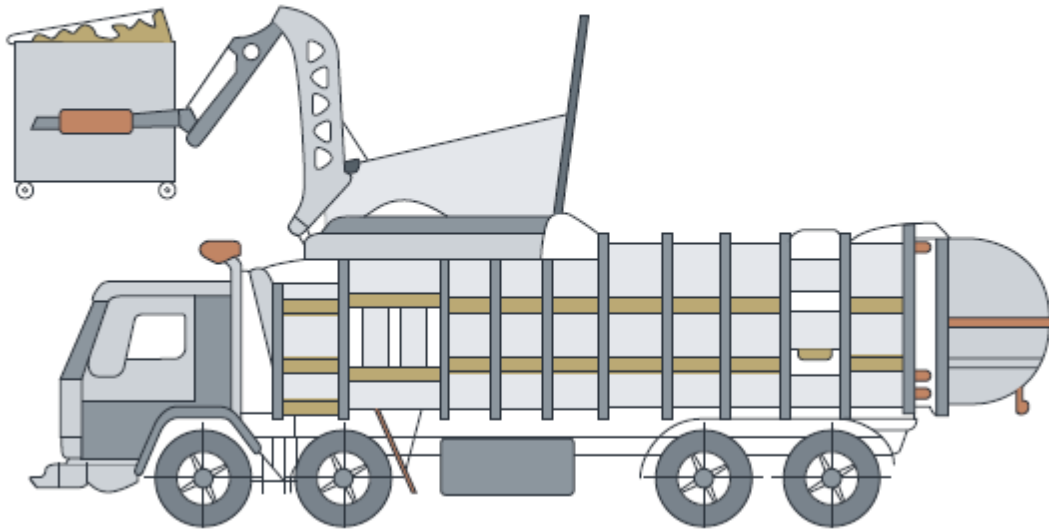
It is recommended that an applicant speak with Council's **Waste** Services Coordinator in regards to the design of development proposals that involve garbage trucks entering the site. Services will not be provided where there are undue risks.

Side-loading collection vehicle	
Length overall	9.64m
Front overhang	1.51m
Wheelbase	5.20m
Rear overhang	2.93m
Turning circle kerb to kerb	17.86m
Turning circle wall to wall	20.56m
Front of vehicle to collection arm	3.8m
Maximum reach of side arm	3.0m
Travel height	3.63m
Clearance height for loading	3.9m



This is the most commonly used vehicle for domestic garbage and recycling collections. It is only suitable for collecting MGBs up to 360 litres in size.

## Front-lift loading collection vehicle



Front-lift loading collection vehicle	
Length overall	10.52m
Front overhang	1.51m
Wheelbase	5.84m
Rear overhang	3.17m
Turning circle kerb to kerb	22.10m
Turning circle wall to wall	23.66m
Travel height	3.82m
Clearance height for loading	6.1m

This is mainly used for collecting commercial and industrial waste, and is only suitable for bulk bins with front lift pockets (not MGBs).

Source of diagram: *Better Practice Guide for Waste Management in Multi-Unit Dwellings, DECC 2008.*

## Appendix B8.6 Commercial/ Industrial Waste and Recycling Storage Areas

### Building Code of Australia

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

### Location and appearance

1. **Waste**/recycling 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.
2. **Waste**/recycling 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 impacts associated with:
  - a) the proximity of the area to **dwelling**s;
  - b) the visibility of the area;
  - c) noise generated by any equipment located within the area;
  - d) noise generated by the movement of bins into and out of the area;
  - e) noise generated by collection vehicles accessing the site; and
  - f) odours emanating from the area.

### Size

1. **Waste**/recycling storage areas must be of adequate size to comfortably accommodate all waste and recycling bins associated with the development.
2. **Waste**/recycling storage areas must be able to accommodate separate general **waste** bins and recycling bins which are of sufficient volume to contain the quantity of **waste** generated (at the rate described in Appendix B8.2) between collections.

### Layout

1. The gradient of **waste**/recycling storage area 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.
2. Within **waste**/recycling storage areas, containers used for the storage of recyclable materials should be kept separate from (but close to) general **waste** containers — so that the potential for contamination of recyclable materials is minimised.

### Access: waste/recycling collection

1. The development must be designed to allow access by collection vehicles used by the nominated **waste** contractor. Wherever 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.

2. Servicing arrangements for the emptying of bins must be compatible with the operation of any other loading/unloading facilities on-site.
3. Access for the purpose of emptying **waste**/recycling storage containers must be able to occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

### **Access: general**

1. In commercial development, public buildings and industrial development, there must be convenient access from each tenancy to the **waste**/recycling storage area(s). There must be step-free access between the point at which bins are collected/emptied and the **waste**/recycling storage area(s).
2. Arrangements must be in place so that the **waste**/recycling storage area is not accessible to the general public.
3. Vermin must be prevented from entering the **waste**/recycling storage area.

### **Surfaces**

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

### **Doors/gates**

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

### **Services**

1. **Waste**/recycling storage areas must be serviced by hot and cold water provided through a centralised mixing valve. The hose cock must be protected from the **waste** containers and must be located in a position that is easily accessible when the area is filled with **waste** containers.
2. The floor must be graded so that any water is directed to a sewer authority approved drainage connection located upon the site. In the SMA this is Sydney Water.

### **Signage**

**Waste**/recycling storage areas must include signage that clearly describes the types of materials that can be deposited into recycling bins and general garbage bins.

### **Management**

Arrangements must be in place for the regular maintenance and cleaning of **waste**/recycling storage areas. **Waste**/recycling containers must only be washed in an area which drains to a sewer authority approved drainage connection. In the SMA this is Sydney Water.

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