

7.2 WASTE MINIMISATION AND MANAGEMENT

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1 Introduction

Council's policy and criteria for the location and design of waste minimisation and management facilities within residential, commercial and industrial developments are outlined in this Part.

Best practice approaches to waste minimisation and management during building demolition and construction phases are included in this Part.

1.1 Minimising Waste

Figures from international surveys demonstrate that New South Wales (NSW) performs poorly in terms of waste disposal. Over two thirds of European countries in the Organisation for Economic Cooperation and Development (OECD) generated less municipal waste than did NSW in 1990.

Sydney alone dumps three million tonnes of waste into landfill annually. This requires large areas of land to be filled, a controversial issue among an increasingly vigilant and concerned community. It also means constant heavy truck and container movements to the far reaches of the city through suburban streets.

Construction and demolition (C&D) waste disposal rates overall have not reduced since 1990. Disposal per capita in 1995 was 134 kilograms (kg) which is 11% higher than the equivalent 1990 figure.

All waste streams contain many resources that are useful products. Recovering, recycling and using these as secondary resources is a key element in working towards ecologically sustainable development.

Much of the C&D waste can be reduced with good design. A further high percentage can be reused and recycled if the time is taken to source-separate, promote local markets and arrange for transportation.

1.2 Government Response

The Federal and NSW Governments have set waste reduction targets based on 1990 per capita disposal rates for the year 2000. The Federal Government has set a 50% reduction target. NSW has set a 60% reduction target.

The NSW Government introduced the Waste Minimisation and Management Act 1995 which sets out a hierarchy of waste reduction strategies. That hierarchy recognises that it is best to avoid creating waste at the point of production. Reuse is the next most effective way to reduce waste and is preferable to recycling. Disposal is the least desirable option.

The Waste Minimisation and Management Act, Environmental Planning and Assessment Act and Local Government Act all embody the principles of ecologically sustainable development (ESD). Efficient use of material resources

through waste avoidance, reuse and recycling is an important component of ecological sustainability.

Councils have a key role to play in the reduction of C&D waste as local government is largely responsible for the regulation of land development and building activity. This Part has been produced with the strong belief that C&D waste reduction needs to be addressed when an application is made for development.

2 Objectives of this Part

The aim of this Part is to reduce the demand for construction and demolition waste disposal and encourage long term avoidance, reuse and recycling of waste.

The objectives of this Part are to:

- assist in achieving Federal and State Government waste minimisation targets in accordance with regional waste plans.
- Minimise the overall environmental impacts of waste and foster the principles of ecologically sustainable development (ESD).
- Require source separation, design and location standards which complement waste collection and management services offered by Council and the private service providers.
- Encourage building designs and construction techniques which will minimise future waste generation.
- Provide on-going management for waste handling and minimisation in premises.
- Provide advice to intending applicants on:
 - matters to be considered when assessing the waste implications of development applications made under the Environmental Planning and Assessment Act
 - how to prepare waste management plans
 - how to reduce and handle waste during the demolition and construction phase.

3 Application

3.1 Using this Part

1

Read Section 2.0 which contains the aims and objectives of the Part.

2

Read Section 10 which will tell you the requirements for the Development Application (DA).

3

Read the relevant sections in Sections 4 to 9 which are applicable to particular types of proposals eg single or multi-unit dwellings, offices, shops or industrial buildings. If you are proposing a mix of uses consult ALL relevant sections.

4

Read Section 11 which contains detailed appendices. (This will help you with steps 5 and 6).

5

Complete the Waste Management Plan (see Schedule 1).

6

Include all relevant details on your plans and if necessary consult with Council prior to lodging your application.

3.2 Applying this Part to Development Applications

The controls apply to all DAs including those lodged by the Council (other than those for Complying Development) for:

- subdivision
- demolition
- construction of buildings (including alteration and additions where applicable).

Where the proposed development involves the need to place a waste storage container (eg a skip) in a public place then a separate application needs to be made under Section 68 of the Local Government Act 1993.

3.3 Compliance with this Part

All applications are considered on their merits. Compliance with the aim, intent and objectives will be the overriding consideration when assessing applications. Mere compliance with the numeric standards in the Plan will not in itself ensure approval.

Council may approve an application which proposes to vary numeric standards provided that the applicant can demonstrate that the aim, intent and objectives of the Plan would be achieved.

3.4 Attaching Conditions to Development Consents

Council will notify applicants of conditions applicable to waste minimisation and management considerations when issuing development consents. Conditions will generally (but not exclusively) be applied in respect of:

- compliance with the waste management plan.
- The siting and design of both temporary and permanent on-site waste storage, recycling and composting facilities.
- Handling and disposal of special and hazardous waste.
- The monitoring of the off-site distribution of reusable and recyclable materials and waste which is proposed to be disposed of at landfill. (In this regard applicants may be conditioned to produce records and receipts of all materials and waste leaving the site).
- Access for collection.
- The need to gain other approvals.

3.5 Orders

The following criteria are to be taken into consideration in determining whether or not to give an Order under Section 121 of the Environmental Planning and Assessment Act, 1979 (as amended):

- the aims and objectives of this Part.
- The contents of the approved waste management plan.
- Conditions of development consent applied in respect of waste minimisation and management.
- The intent and objectives of this Part specified for:
 - single dwellings
 - terraces, villa homes, town houses and residential flat buildings
 - boarding houses, hotels and motels
 - shops, offices and restaurants
 - industrial buildings

- hospitals, nursing homes and surgeries
- educational facilities
- entertainment centres and facilities.

4 Demolition of Buildings

Intent:

To promote improved project management to maximise avoidance, reuse and recycling of materials and minimise disposal and waste generation to landfill.

4.1 Objectives

The intent may be achieved where:

- avoidance, reuse and recycling of material is maximised
- waste disposal is minimised
- evidence is provided that specified arrangements have been implemented.

4.2 Submission Requirements

The application shall include:

- section 1 of the waste management plan (see Schedule 1) completed and the following details on plans:
 - location of on-site storage space or facilities for materials (for reuse) and containers for recycling and disposal
 - access to the site and within the site for collection vehicles.

5 Construction Stage

Intent:

To facilitate improved project planning and management which results in efficient use of resources and minimisation of waste.

5.1 Objectives

The intent may be achieved by:

- Adopting a purchasing policy which takes into consideration measures such as:
 - ordering the right quantities of materials
 - prefabrication of materials where possible.
- Reusing formwork.

- Utilising modular construction and basic designs to reduce the need for off-cuts.
- Minimising site disturbance, limiting unnecessary excavation.
- Careful source separation of off-cuts to facilitate reuse, resale or efficient recycling.
- Choosing landscaping which reduces green waste.
- Coordinating and sequencing of various trades.

5.2 Submission Requirements

The construction phase would require the completion of section 2 of the waste management plan (see Schedule 1).

Where applications are required for alterations or refurbishment of premises completion of section 1 and 2 of the waste management plan is required. If circumstances warrant there may be a need to complete sections 3 and 4 as well.

6 Residential Buildings

Intent:

To encourage waste minimisation (source separation, reuse and recycling) ensure appropriate storage and collection of waste and achieve good design of facilities.

6.1 Objectives

The intent may be achieved where:

- a waste cupboard or other appropriate space is provided within dwellings for temporary storage of recyclables, garbage and compostable material.
- In the case of single dwellings an accessible and usable waste storage area and space for composting is provided on-site.
- In multi dwelling developments where individual storage is proposed an accessible and usable waste storage and recycling area is provided.
- In multi dwelling developments where individual storage is proposed an accessible and usable waste storage and recycling area is provided within the private yard of each unit.
- In circumstances where communal facilities are proposed, the area or room is of sufficient size to store Council's standard bins and is easily accessible from each unit and from Council's usual collection point.
- The location and design of facilities complement the streetscape and does not impact on adjoining premises and the amenity of the dwellings within the development (eg odour, noise).
- Adequate space has been provided to enable on-site composting.
- Acceptable administrative arrangements for ongoing waste management are determined.

6.2 Submission Requirements

For single dwellings the application shall include:

- section 2 of the waste management plan (see Schedule 1).
- The following details on plans:
 - location of the waste cupboard within the dwelling
 - location of waste storage and recycling area relative to the usual collection point and that will not impact on adjoining premises.

For multi dwelling developments the application shall include:

- a completed waste management plan (see Schedule 1).
- The following details on plans:
 - location of waste cupboard space within each dwelling unit
 - location of waste storage and recycling area(s) per dwelling unit or located communally on-site. In the latter case this could be a garbage and recycling room
 - details of design for waste storage and recycling area(s) or garbage and recycling room(s). This should include floor plan, elevations and cross section drawings of the room and also materials and finishes
 - location of communal composting area
 - where applicable, design details of garbage chute system(s) and any volume reduction equipment
 - location of collection area.

6.3 Waste Storage and Recycling Area for Single Dwellings and Multi Dwelling Developments Where Individual Storage is Proposed

Each dwelling shall be provided with an area capable of accommodating Council's standard garbage and recycling containers and a personal composting bin.

The area must have unobstructed access to Council's usual collection point and where possible be located within the rear yard to avoid visual clutter. Where this is impractical and/or inaccessible, waste containers can be stored at the front behind suitable screening or within the garage or carport, with composting facilities in a separate location that will not impact on adjoining premises.

6.4 Special Waste

Where special waste materials to be generated (such as medical wastes and household hazardous waste) special arrangements will be required.

Contact should be made with the Council and the EPA.

6.5 Communal Facilities for Multi Dwelling Developments

Communal on-site waste storage and recycling area or garbage and recycling room must be provided in the following circumstances:

- residential flat buildings and multi-level dwelling occupancy.
- Single level multi dwelling developments where the number of bins would not fit comfortably on the street frontage or would detrimentally affect residential amenity.
- Where the status of the roadway (heavy traffic) requires on-site access.
- Where site characteristics make access to the street difficult for individual unit holders eg steep sites.
- Where such arrangements suit collection services.

The area should be capable of accommodating Council's required number of standard waste containers and should be designed in accordance with current standards. Where such an area is proposed additional space for the storage of bulky waste such as clean-up materials awaiting removal or recycling should be provided.

On difficult or steep sites or sites with particular natural features (such as watercourses) or with two street frontages it may be appropriate to have a number of waste storage and recycling areas to minimise distances, prevent site pollution and facilitate collection.

For large scale proposals there may be a number of garbage and recycling rooms, operating in conjunction with a collection area located adjacent to the collection point. At appropriate times waste is transported from the rooms to this area for collection.

In each case the onus is upon the managing body to ensure on-street placement where possible. Where for the reasons above this is not possible and Council or private vehicles must enter the site a separate collection area should be part of the design and legal access agreements obtained.

Communal facilities should be managed to ensure that they are kept tidy and storage bins are not filled beyond the capacity of the container. Steps should be taken to ensure that recyclable materials can easily be placed into the correct storage bin. Communal facilities require regular maintenance.

6.6 Communal Composting Areas

Council requires an area to be nominated on-site for communal composting.

Whilst the operation of such a facility will depend upon the attitudes of dwelling occupants and their management body the potential to compost should exist. It is appropriate for this area to be incorporated in the landscaping plans for the development.

The following advice is also relevant:

- location should consider proximity to units (including adjoining development) odour and location of the site drainage system.
- The facility should be purpose-built. There are a variety of techniques available and advice on this and public health considerations can be obtained from Council's Integrated Civic Policy, Planning and Design Division.
- The facility should be carefully signposted and be the responsibility of the body corporate (or managing agent).

6.7 Garbage Chute Systems for Multi Storey Buildings

Buildings containing more than four storeys (with one storey at ground level used for the accommodation of motor vehicles) shall be provided with a suitable system for the transportation of garbage from each floor level to the garbage and recycling room(s). This may be a garbage chute system. Where such facilities are utilised, space must be provided on each floor for storage of recyclables.

Ongoing management is a significant issue - details are to be provided in the waste management plan.

6.8 Volume Reduction Equipment and Food Waste Disposal Units for Multi Storey Buildings

Compaction and other volume reduction equipment may be provided in the garbage and recycling room. Such equipment could save space on site where difficult design constraints occur. Volume reduction equipment should be considered for all buildings greater than 25 metres high.

Volume reduction equipment should not be used on recyclables: removing contaminants from compacted recyclables is almost impossible and markets will reject compacted loads containing any contaminants. Compaction equipment must be attenuated.

In normal circumstances, there will not be a reduction in area requirements where such equipment is proposed. Council considers that area requirements should allow for possible changes in on-site waste management arrangements. Similarly, where food waste disposal units are provided within units there will not be a reduction in the area/facility requirements.

7 Commercial And Retail Premises

Included in this category are premises such as shops, offices, food premises, hotels, motels, licensed clubs, education establishments, entertainment facilities and hospitals.

Intent:

To encourage waste minimisation (source separation, reuse and recycling) and ensure appropriate storage/collection of waste and quality design of facilities.

7.1 Objectives

The intent may be achieved where:

- the system for waste management is compatible with collection services.
- On-site source separation is facilitated.
- An appropriately designed and well located waste storage and recycling area and/or garbage and recycling room is provided on-site.
- Clear access for staff and collection services is provided.
- Facilities are carefully sited, well-designed and do not impact on adjoining premises or the amenity.
- There are acceptable administrative arrangements for ongoing waste management.

7.2 Submission Requirements

The application shall include:

- a waste management plan (see schedule 1).
- Details on plans of:
 - location of waste storage and recycling area(s) per unit or located communally on-site
 - details of design of waste storage and recycling area(s). This should include floor plan, cross-section and also show materials and finishes
 - where appropriate, design details of garbage and recycling room(s)
 - if applicable, design details of garbage chute systems and any volume reduction equipment
 - access for collection vehicles.

7.3 Waste Storage and Recycling Area

Every building shall be provided with a waste storage and recycling area designed and constructed to meet Council's requirements and be flexible in size and layout to cater for future changes of use.

The size is to be calculated on the basis of waste generation rates and proposed bin sizes. Calculation of waste generation rates should be based on industry standards and discussed with the collection service provider (in this regard

Council or the Northern Sydney Waste Board may have a Construction and Demolition Recycling Directory available for perusal). In all cases source separation (eg for recyclables) is required.

In calculating generation rates and area requirements the operation of staff kitchen facilities should also be included. Where possible access should be from the rear of the property.

In all cases access to normal collection points should be unimpeded. For large developments a collection area should be included within the design.

7.4 Special Waste

Where special waste material is to be generated (such as chemicals and other products past their expiry date) special arrangements will be required. Contact should be made with the Council and the EPA.

7.5 When to Have Communal Facilities

Where multiple occupancy, such as a series of shops or an office complex is proposed, communal facilities may be appropriate. For instance:

- where the design makes it difficult for all units to have ready access to a collection point
- where site characteristics restrict entry of vehicles.

The waste storage and recycling area shall be designed to enable each separately tenanted or separately occupied area within the building or complex to be provided with a designated and clearly identified space for the housing of sufficient commercial containers to accommodate the quantity of waste and recyclable material generated.

A building containing more than three storeys shall be provided with an acceptable method for transporting waste from each level to a garbage and recycling room. This could be a goods lift, a chute system or some other means of providing direct and convenient internal access. Where such facilities are utilised, space must be provided per floor for temporary storage of waste material and recyclables.

Ongoing management is a significant issue - details are required in the waste management plan.

7.6 Paper and Cardboard

For offices and commercial premises particular attention should be paid to paper and cardboard recycling with source separation at the waste storage and recycling area or garbage and recycling room. This should be included in the waste management plan. Education of staff and regular collection services is also important.

7.7 Food Shops, Restaurants and Refrigerated Garbage Rooms

Special attention should be paid to food scrap generation. Specialised containment should be provided and a regular and frequent collection service arranged to ensure that no impacts result from the activity.

Refrigerated garbage rooms should be provided when large volumes, perishables (such as seafood) and infrequent collection is proposed.

7.8 Grease Arrestors

Contact should be made with Sydney Water to obtain their trade waste requirements for the installation of grease arrestors where there is a likelihood of the need to dispose of liquid waste.

8 Industry

This category includes manufacturing establishments, warehouses and distribution activities.

Intent:

To encourage waste minimisation (source separation, reuse and recycling) and ensure appropriate storage and collection of waste and quality design of facilities.

8.1 Objectives

The intent may be achieved where:

- the system for waste management is compatible with chosen collection service(s).
- Sufficient space on-site is provided for careful separation and storage of recyclables and garbage.
- For multi-use and industrial units a waste storage and recycling area is provided per unit or in communal space(s) and designs allow for a range of uses.
- The area is easily accessible from each unit and from the collection point and clear access for collection vehicles is provided.
- Facilities are carefully sited and well designed.
- There are acceptable administrative arrangements for ongoing waste management.

8.2 Submission Requirements

The application shall include:

- a completed waste management plan (see appendix 1).
- Details of design for waste storage and recycling areas. This should include floor plan, elevations, cross section and show material and finishes.
- If applicable, design details of any volume reduction equipment.
- Access for collection vehicles.

8.3 Special Waste

Production, storage and disposal of hazardous wastes (such as contaminated or toxic material or products) require particular attention.

Contact should be made with the EPA.

8.4 Single Use Operations

Every building shall be provided with a waste storage area capable of providing source separation of paper, metal, plastics, putrescible and liquid waste and flexible in size and layout to cater for a range of uses. The size is to be calculated on the basis of waste generation rates and proposed bin sizes.

Calculation of waste generation rates should be based on industry standards and discussed with the collection service provider (in this regard Council). In all cases source separation (eg for recyclables) is required. In calculating generation rates and area requirements the operation of staff kitchen facilities should also be included.

Where possible access should be from the rear of the property. In all cases, access to normal collection points should be unimpeded. For large developments a collection area should be included within the design.

8.5 Factory Units

Factory unit developments are less predictable than single use operations. A number of basic decisions and assumptions need to be made up-front:

- whether individual or communal facilities or a combination of both will be required
- degree of source separation
- how to estimate generation rates (and therefore area requirements).

8.6 When to Have Communal Facilities

In some circumstances waste management responsibility can be internalised with each unit having its own bins (garbage and recycling) and individual unit holders taking responsibility for putting them out for collection.

In the following circumstances a communal area should be provided:

- where the design makes it difficult for all units to have ready access to a collection point
- where site characteristics restrict entry of vehicles.

The waste storage and recycling area shall be designed to enable each separately tenanted or occupied area within the building or complex to be provided with a designated and clearly identified space for the housing of sufficient commercial containers to accommodate the quantity of waste and recyclable material generated.

The area(s) should be flexible in design so as to allow for future changes of use of the units.

9 Information Accompanying the Development Application

In all cases a waste management plan must be completed and included with your development application.

A waste management plan is a checklist that provides Council with details of the following:

- the volume and type of waste to be generated
- how waste is to be stored and treated on site
- how residual waste is to be disposed of
- how ongoing management will operate.

Completing the waste management plan should not be a difficult task. It will require some research but the process should assist industry, commercial operators and site managers in planning their necessary waste management procedures. This could ultimately result in cost savings.

A sample of a completed waste management plan is found at appendix 1.

Council and the Northern Sydney Waste Board have copies of a package titled "Waste Planning Guide for Development Applications : planning for less waste". The package will assist in the preparation of a waste management plan.

A "Waste Resource Finder" can be found on the internet web site www.wasteboard.nsw.gov.au/finder/.

Relevant details of waste storage, facility design and access must be shown on your plan drawings to be submitted with your application.

The following table summarises Council's submission requirements for specific activities. References to "class buildings" are in accordance with Part 3 of the Building Code of Australia.

9.1 Submission Requirements Table

<u>Land Use or Activity Proposed</u>	<u>Intent</u>	<u>Submission Requirements</u>
Demolition including vegetation removal excavation and major renovations	Maximise, reuse and recycling of material	<ul style="list-style-type: none"> • Waste Management Plan (WMP) * Drawings
Single dwellings, terraces, villa homes, class 1 buildings (not being complying development)	Encourage waste minimisation (source separation, reuse and recycling) and ensure appropriate storage and collection of waste	<ul style="list-style-type: none"> • Complete Section 1 WMP (see Schedule 1) * on-site sorting and storage areas * access for collection vehicles * vegetation to be retained
<p>Multi unit dwellings, town houses and residential flat buildings, class 2 buildings and boarding houses class 1(b) buildings.</p> <p>Hotels, motels, schools, large boarding houses, class 3 buildings.</p> <p>Shops, offices and restaurants, class 5 & 6 buildings.</p> <p>Industry (eg factories, warehouses), class 7 & 8 buildings.</p> <p>Health care (eg public and private hospitals, nursing homes, class 9(a) buildings.</p> <p>Assembly buildings, theatres, cinemas, class 9(b) buildings.</p> <p>Entertainment and sporting facilities/events.</p>	<p>Encourage waste minimisation (source separation, reuse and recycling) and ensure appropriate storage and collection of waste and quality design of facilities</p> <p>To provide for ongoing waste management arrangements</p>	<ul style="list-style-type: none"> • Complete Sections 2, 3 & 4 WMP (see Schedule 1) <p>Note: If demolition is involved complete Section 1</p> <ul style="list-style-type: none"> * waste cupboard space * waste storage and recycling area or garbage and recycling room * a collection area * access for collection vehicles * composting facilities * location and design of communal facilities where appropriate * management of hazardous waste where appropriate

Schedule 1 – Waste Minimisation and Management Forms 1-5

Waste Management Plan Form 1. Land use or activity proposed.

Outline of Proposal
Site Address _____
<u>Applicant's Name and Address</u>
Tel: _____ Fax: _____ Mob: _____
Buildings and other structures currently on site
Brief description of proposal
The details provided on this form are the intentions for managing waste related to this project
Signature of Applicant _____ Date _____

