



11h Waste minimisation & management

Explanatory outline

Section 11h outlines assessment criteria relating to waste minimisation and management. The following matters are covered:

- Demolition
- Construction
- Mixed use developments

Note: specific waste management and minimisation requirements that apply to particular development types are included in:

- section **4a Urban dwellings**
- section **5a Commercial & mixed use development - general**
- section **6a Industrial development - general.**

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11h.1 Application of this section

This section applies to development described in Column 1 when carried out on land described in Column 2.

Column 1:	Type of development	Column 2:	Applicable land
	Development that, in the opinion of Council, is likely to generate a significant volume of waste, including: <ul style="list-style-type: none"> • demolition • building construction • subdivision works • food and drink premises • a change of use to commercial or industrial premises. 		Any land.

11h.2 Relevant planning instruments & legislation

The following environmental planning instruments or other legislation are relevant to development to which this section applies:

- *Upper Hunter Local Environmental Plan 2013*
- *Waste Minimisation and Management Act 1995*
- *Protection of the Environment Operation Act 1997*

Further planning instruments and legislation may also be relevant. In the event of any inconsistency, the above listed instruments will prevail over requirements or criteria contained in this section.



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11h.3 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:

- avoiding unnecessary resource consumption
- recovering resources for reuse
- recovering resources for recycling or reprocessing
- 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:

- reduced costs
- improved workplace safety
- enhanced public image
- compliance with legislation such as the *Protection of the Environment Operation Act 1997* that requires waste to only be transported to a place that can lawfully accept it.

This section aims to facilitate sustainable waste minimisation and management within the Upper Hunter Shire in a manner consistent with the principles of ESD.

11h.4 Definitions

There may be some terms used in this section that are defined in the **Dictionary**.

11h.5 Objectives

The objectives of this section are to:

1. minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources
2. encourage building designs, construction and demolition techniques in general which minimise waste generation
3. maximise reuse and recycling of household waste and industrial/commercial waste
4. assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan
5. provide guidance in regards to space, storage, amenity and management of waste management facilities
6. ensure waste management systems are compatible with collection services
7. minimise risks associated with waste management at all stages of development
8. optimise adaptive reuse opportunities of existing building/structures



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9. minimise waste generation
10. maximise source separation and recovery of recyclables
11. ensure waste management facilities are safely and easily accessible to occupants and service providers
12. ensure appropriate resourcing of waste management systems, including servicing
13. minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene
14. minimise the environmental impacts associated with waste management
15. avoid illegal dumping.

11h.6 Supporting plans & documentation

Development applications that are subject to this section should be supported by the following plans and documentation.

Item	When required	Plans or information to be provided
A. General requirements	All applications	Refer to Part 2 Preparing & lodging a development application
B. Site Waste Minimisation and Management Plan (SWMMP)	Applications relevant to this section	<p>Report and plan outlining measures to minimise and manage waste generated during demolition, construction and ongoing use of the site/premises.</p> <p>The SWMMP should include details regarding:</p> <ul style="list-style-type: none"> • the location of waste management facilities proposed both during construction and for ongoing operation. • volume and type of waste and recyclables to be generated • storage and treatment of waste and recyclables on site • disposal of residual waste and recyclables • operational procedures for ongoing waste management once the development is complete. <p>A Site Waste Minimisation and Management Plan (SWMMP) template can be found with other Council forms at: http://upperhunter.nsw.gov.au/do-it-online/apply-for-it.aspx</p> <p>More details will be required for larger and more complex developments, and are specified in the relevant section of this DCP – eg for multi unit housing, retail and commercial development, and industrial development</p> <p>In the absence of project specific calculations, the rates specified in section 11h.8 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.</p>

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11h.7 Assessment criteria

A performance-based approach will be adopted in the assessment of development applications. Applications will be assessed according to the extent to which the outcomes specified in the left-hand column of the following table will be satisfied or achieved by the design, construction or operation of the proposal.

The design guidelines specified in the right-hand column indicate design and best practice solutions by which the required outcomes can be met. They do not preclude other solutions that may be suitable under particular local circumstances. All proposals will be considered on merit.

Outcomes to be achieved

Design guidelines

A. Demolition

This section applies to all developments involving demolition works.

- A completed Site Waste Minimisation and Management Plan (SWMMMP) shall accompany the demolition application.
- All waste likely to result from the demolition is identified, and opportunities for reuse of materials are explored.
- Reuse/recycling is facilitated by using the process of 'deconstruction', where various materials are carefully dismantled and sorted.
- Salvaged materials onsite are reused or recycled where possible.
- An area for the storage of materials is allocated for use, recycling and disposal (giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation, and access and handling requirements).
- Separate collection bins or areas for the storage of residual waste are provided and the purpose and content of the bins and storage areas are clearly 'signposted' .
- Measures are implemented to prevent damage by the elements, odour and health risks, and windborne litter.

B. Construction

This section applies to all developments involving construction works, in addition to the specific requirements given for each type of development in subsequent sections below..

- A completed Site Waste Minimisation and Management Plan (SWMMMP) shall accompany the development application.
 - All waste likely to result from the construction process is identified, and the opportunities for the reuse and recycling of these materials is explored.
 - The use of prefabricated components and recycled materials is incorporated into the construction.
 - An area for the storage of materials is allocated for use, recycling and disposal (giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation, and access and handling requirements).
 - Separate collection bins or areas for the storage of residual waste are provided and the purpose and content of the bins and storage areas are clearly 'signposted' .
 - Measures are implemented to prevent damage by the elements, odour and health risks, and windborne litter.
 - Ensure that all waste is transported to a place that can lawfully be used as a waste facility. Retain all records demonstrating lawful disposal of waste and
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Outcomes to be achieved

Design guidelines

keep them readily accessible for inspection by regulatory authorities such as council, Environment Protection Authority or WorkCover NSW.

C. Dwellings

- The waste minimisation & management requirements of **Section 4a Urban Dwellings** must be considered.

D. Commercial developments and change of use

- The waste minimisation & management requirements of **Section 5a Commercial and mixed use development** must be considered.

E. Industrial developments

- The waste minimisation & management requirements of **Section 6a Industrial development - general** must be considered.

F. Mixed use developments

This section applies to 'mixed use developments' that contain both residential and non-residential uses.

This section aims to ensure 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.

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.
- The waste minimisation & management requirements of **Section 4a Urban dwellings** apply to the residential component of mixed-use development.
- The waste minimisation & management requirements of **Section 5a Commercial and mixed use development** apply to the non-residential component of mixed-use development.
- Separate and self-contained waste management systems for the residential component and the non-residential components of the development are provided, including:
 - 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.
- 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.

11h.8 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

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- 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
Backpackers' Hostel	40L/occupant space/week	20L/occupant space/week
Boarding House, Guest House	60L/occupant space/week	20L/occupant space/week
Food premises: Butcher Delicatessen Fish Shop Greengrocer Restaurant, Café Supermarket Takeaway food shop	80L/100m ² floor area/day 80L/100m ² floor area/day 80L/100m ² floor area/day 240L/100m ² floor area/day 10L/1.5m ² floor area/day 240L/100m ² floor area/day 80L/100m ² floor area/day	Variable Variable Variable 120L/100m ² floor area/day 2L/1.5m ² floor area/day 240L/100m ² floor area/day Variable
Hairdresser, Beauty Salon	60L/100m ² floor area/week	Variable
Hotel, Licensed Club, Motel	5L/bed space/day 50L/100m ² bar area/day 10L/1.5m ² dining area/day	1L/bed space/day 50L/100m ² bar area/day 50L/100m ² dining area/day
Offices	10L/100m ² floor area/day	10L/100m ² floor area/day
Shop less than 100m ² floor area Shop greater than 100m ² floor area	50L/100m ² floor area/day 50L/100m ² floor area/day	25L/100m ² floor area/day 50L/100m ² floor area/day
Showroom	40L/100m ² floor area/day	10L/100m ² floor area/day
Multi-Unit Dwellings ¹	80L/unit/week	40L/unit/week

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

Appendix A, Better Practice Guide For Waste Management In Multi-Unit Dwellings



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11h.9 Further information

When implementing a SWMMP, the applicant must ensure:

- Footpaths, public reserves, street gutters are not used as places to store demolition waste or materials of any kind without Council approval.
- Any material moved offsite is transported in accordance with the requirements of the Protection of the Environment Operations Act 1997.
- Waste is only transported to a place that can lawfully be used as a waste facility.
- 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.
- Evidence such as weighbridge dockets and invoices for waste disposal or recycling services are retained.
- Evidence of compliance with any specific industrial waste laws and protocols, such as the Protection of the Environment Operations Act 1997.
- Materials which are to be disposed of and those which are to be reused/ recycled are to be separated through the demolition and construction process.
- Materials that have existing reuse or recycling markets should not be disposed of in landfill when possible.

11h.10 Supplementary guidance

The following documents or reference materials provide further advice or information that is relevant to this section.

- *Better Practice Guide for Waste Management in Multi-Unit Dwellings, Department of Environment and Climate Change (2008)*