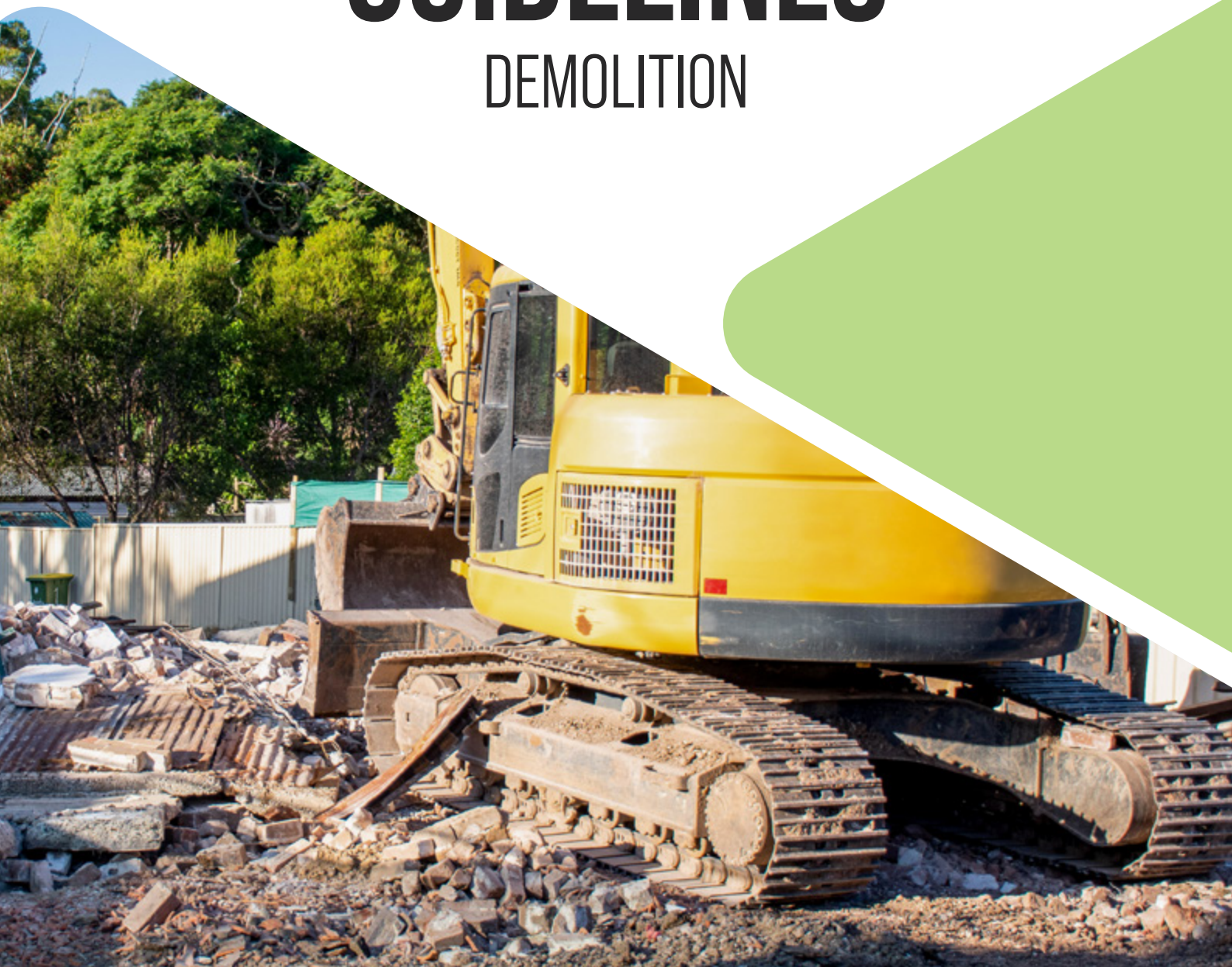


# WASTE MANAGEMENT GUIDELINES

## DEMOLITION







*Journey Through Time*, created by local school students and artist Steven Campbell.

## Acknowledgement of Country

Cessnock City Council acknowledges that within its local government area boundaries are the traditional lands of the Wonnarua people, the Awabakal people and the Darkinjung people. We acknowledge these Aboriginal peoples as the traditional custodians of the land on which our offices and operations are located, and pay our respects to Elders past and present. We also acknowledge all other Aboriginal and Torres Strait Islander people who now live within the Cessnock Local Government Area.

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# ***INTRODUCTION***



# Introduction

Waste minimisation from demolition of structures can be undertaken through management practices such as reuse, re-sale or reprocessing of materials. Waste minimisation practices can provide benefits to a project including:

- Income from sale of recycled or salvaged materials
- Reduced waste transport and disposal costs
- Reduced consumption of new materials and resources
- Conserving landfill space

This guideline has been developed to assist with the completion of a Waste Management Plan (WMP) for demolition projects and assist with meeting the requirements for waste management under Council's Development Control Plan (DCP). A template WMP for demolition activities has been provided in **Appendix A** of this guideline to assist in preparing for a demolition project.



## Waste types from demolition

Planning for waste minimisation from demolition should consider the types of waste produced by the project and how they may be re-used, recovered or recycled. Types of waste may include

- reusable parts of the structure or the whole structure/building
- fittings and furnishings (including doors, windows, cabinetry, sinks, basins etc)
- services (including fire safety systems, electrical components, air-conditioning etc)
- structural materials (including roof, floor, columns, framing etc)
- internal or secondary materials (including ceilings, wall panels and floor coverings)
- outbuildings, sheds, carports, garages
- fencing, pathways, letterboxes, landscape edging

The volume of waste from demolition will vary based on the size of the project/structures. **Table 1** below shows the typical composition of waste materials from the demolition of different housing.

**Table 1:** Typical waste material composition from housing demolition

MATERIAL	HOUSING TYPE			
	FULL BRICK (T)	BRICK VENEER (T)	WEATHERBOARD (T)	ASBESTOS FIBRO (T)
Fittings	1.5	1.5	1	1
Roof tiles	8	12	5	5
Plasterboard	1	2.5	2	2
Timber	6.9	9.6	7.2	5.3
Concrete, bricks, footings	180	120	50	20
Asbestos	-	-	-	1.8
<b>Total</b>	<b>197</b>	<b>146</b>	<b>65</b>	<b>35</b>

**Source:** House deconstruction: Information booklet (Department of Environment, Climate Change and Water NSW, July 2010).





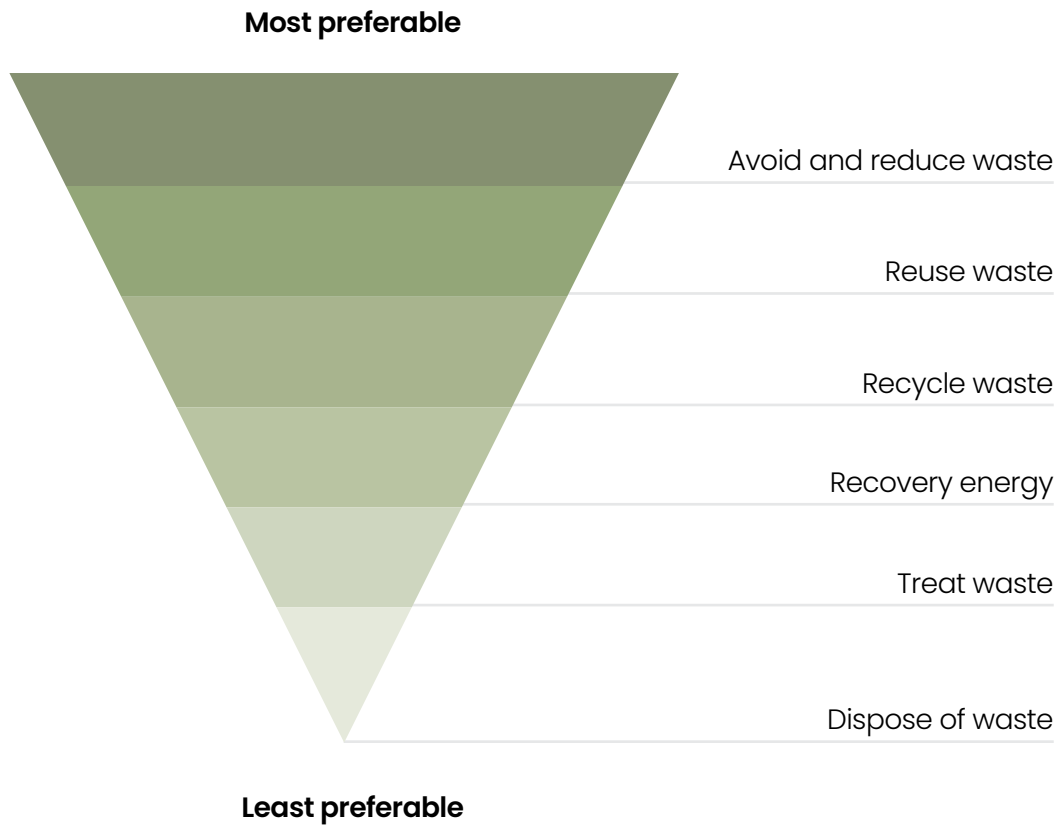
The background is a solid green color with several abstract white shapes. A thin white line starts from the left edge and curves downwards and then rightwards. There are also larger, rounded white shapes in the top right and bottom left corners.

# *WASTE* MINIMISATION



## Waste Management Plan

All demolition should be planned and undertaken safely in accordance with Australian Standard AS 2601 – 2001 The demolition of structures. In preparing a WMP for a demolition project consideration of the waste hierarchy under the Waste Avoidance and Resource Recovery Act 2001 is to be undertaken (**Figure 1**).



**Figure 1:** Waste hierarchy – Waste Avoidance and Resource Recovery Act 2001.

**Table 2** provides examples of how the waste hierarchy can be applied to a demolition project to minimise waste and can assist with the preparation of a WMP.



**Table 2:** Potential waste minimisation management for demolition projects

MATERIAL	AVOID	REUSE	RECYCLE	DISPOSE
Concrete	Retain existing driveways, paths, footings, slabs		Reprocessed off-site at commercial facility for roadbase or levelling material	
Bricks	Retain existing walls, buildings, fences	Reuse bricks that are in good order on-site Sell bricks in good order	Reprocessed at commercial facility	
Roof tiles	Retain existing roof Consider cleaning and/or colour treatment	Sell tiles if in good condition	Reprocessed at commercial facility	
Timber (lumber, timber, flooring)	Leave in place or re-clad	Use as architectural feature on-site Sell suitable timber	Unpainted and untreated wood not fit for reuse	Painted, treated or rotting timber disposed as residual waste.
Doors, windows		Use as architectural feature in new project Sell if in good condition or use as second-hand building materials	Metal frames, screens to metal recycler. Unpainted or untreated wood not fit for reuse Glass to recycler	Unusable painted or treated wood.
Cabinets		Reuse suitable cabinets or replace doors Sell good condition cabinetry	Untreated or unpainted wood	Unusable painted or treated wood.
Plasterboard			Reprocessed off-site at commercial facility	Contaminated or rotten plasterboard
Plumbing products	Retain existing plumbing where appropriate	Reuse sinks tops, tubs, PVC pipes in new project Sell plumbing products if in good condition	Metal pipes, tops etc to metal recycler	PVC and other plastic piping unfit for reuse.
Synthetic and recycled rubber (eg carpet underlay)	Protect and cover for use in project	Good condition material can be reused	Reprocessed off site at commercial facility	Stained or soiled material unfit for reuse.

## Reuse of demolition material

Where a suitable benefit to the project can be identified the reuse of material on-site should be considered. Materials and fittings that may be suitable for reuse include

- Timber – hardwood flooring, weatherboard, laminated beams, truss joints, framing, posts
- Thermal insulation – fiberglass, wool and polyester insulation, polystyrene sheets
- Plumbing fixtures – baths, sinks, toilets, service equipment
- Electrical fittings – light fittings, switches
- Linings and finishings – architraves, skirtings, wood paneling, joinery
- Doors and windows – metal and timber doors, mechanical closures, aluminum windows, steel windows, sealed glass units, store fronts, skylights

However, on-site use must comply with environmental and health legislation including

- Protection of the Environment Operations Act 1997: Does not result in pollution of the land
- Contaminated Land Management Act 1997: Does not result in contamination of the land
- The main exceptions to reuse and recycling of materials are
- Asbestos products
- Fire damaged building materials (contaminated by burnt chemical residues)
- Timber components treated with Copper Chrome Arsenate (CCA)
- Lead paint
- Poly-chlorinated Biphenyls (PCBs)

## Reuse or recycle off-site

If the project requires existing buildings and infrastructure to be removed then careful on-site separation of materials can assist in waste minimisation. A number of color coded or labelled bins, or an ordered retrieval program, can assist with reducing waste disposal to landfill.

Materials that can be recycled from demolition projects include

- Asphalt paving
- Concrete
- Masonry – concrete blocks, paving stones, bricks and terracotta tiles
- Metals – structural steel, steel roofing, metal flashing, reinforcing steel, copper pipes and wiring
- Wool carpet
- Plastic – high-density polyethylene water pipes, PVC, polystyrene.

To maximise the value of the recyclable material, consult with the recycler to identify potential contaminants and minimise issues in the waste resource stream.



# ***DEMOLITION WASTE*** STORAGE AREAS

## Demolition waste storage areas

The size of the waste storage area at the demolition site will be dependent on the size of the project and volume of materials. The waste storage area is to be a minimum of 3.5m<sup>2</sup> with a screening height of 1.2m. The number of bins within the waste storage will be dependent on the number of waste streams to be separated and collected. Any bins are to have tight fitting lids to prevent litter/waste escaping from the waste storage area.

A number of waste storage areas may be required depending on the waste streams to be collected and site access.

## Demolition waste collection point

The waste collection point for demolition material is to be located within the site and safely accessible by the waste collection vehicle. The waste collection vehicle should be able to access and leave the site in a forward direction.

The nominated demolition waste collection point is to be identified on the submitted Site Plan.



The background is a solid light green color. It features several abstract white shapes: a thin line that curves from the left edge towards the center, a larger rounded shape in the top right corner, and a large, light green shape in the bottom left corner that overlaps the main background.

# *USEFUL* RESOURCES



## Useful resources

Better Buildings Partnership 2024, BBP Stripout Waste Guidelines,  
<https://www.betterbuildingspartnership.com.au/resource/stripout-waste-guidelines-procurement-systems-and-reporting/>

NSW EPA , Household building and renovation,  
<https://www.epa.nsw.gov.au/your-environment/household-building-and-renovation>

Planet Ark 2023, Business Recycling Directory,  
<https://businessrecycling.com.au/>



# ***APPENDIX A***

## Appendix A

Click here to download a council built template for your waste management plan:

[https://www.cessnock.nsw.gov.au/files/assets/public/v/1/hprim/website-forms-do-not-change/waste-management-guidelines-\\_demolition-\\_fillable-form.docx](https://www.cessnock.nsw.gov.au/files/assets/public/v/1/hprim/website-forms-do-not-change/waste-management-guidelines-_demolition-_fillable-form.docx)





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