



## Waste Management Plan

Proposed Residential Flat Buildings and Multi Dwelling Housing (21 Units)

18 Macleay Avenue, Woy Woy

December 2023

© Copyright Barker Ryan Stewart Pty Ltd  
2023 All Rights Reserved

Project No.	CC190073
Author	BM
Checked	KS
Approved	KS

Rev No.	Status	Date	Comments
1	Final	13/12/2023	

#### **COPYRIGHT**

Barker Ryan Stewart reserves all copyright of intellectual property in any or all of Barker Ryan Stewart's documents. No permission, licence or authority is granted by Barker Ryan Stewart to any person or organisation to use any of Barker Ryan Stewart's documents for any purpose without the written consent of Barker Ryan Stewart.

#### **REPORT DISCLAIMER**

This report has been prepared for the client identified in section 1.0 only and cannot be relied on or used by any third party. Any representation, statement, opinion or advice, expressed or implied in this report is made in good faith but on the basis that Barker Ryan Stewart are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in any respect of any representation, statement, or advice referred to above.

This report is for development application purposes only and is not to be relied upon for construction purposes. The waste calculations included in the report are an estimate only, based on the plans and documents supplied by the client and waste generation guidelines from Council, the EPA and other third parties. This report is a guideline only and should not be used as a basis for feasibility studies, safety procedures, operational costs, demolition / construction estimates or bills of quantities. Should waste generation be higher than expected, the site manager shall make appropriate adjustments to accommodate additional waste. Any equipment recommended in this report shall be assessed by the supplier and site manager to determine it is fit for the intended purpose.



**SYDNEY**  
P (02) 9659 0005  
E [sydney@brs.com.au](mailto:sydney@brs.com.au)

**CENTRAL COAST**  
P (02) 4325 5255  
E [coast@brs.com.au](mailto:coast@brs.com.au)

**HUNTER**  
P (02) 4966 8388  
E [hunter@brs.com.au](mailto:hunter@brs.com.au)

**COFFS HARBOUR**  
P (02) 5642 4222  
E [coffs@brs.com.au](mailto:coffs@brs.com.au)

**NORTHERN RIVERS**  
P (02) 6681 6696  
E [northernrivers@brs.com.au](mailto:northernrivers@brs.com.au)

**SOUTH EAST QUEENSLAND**  
P (07) 5582 6555  
E [seqld@brs.com.au](mailto:seqld@brs.com.au)

## Table of Contents

1	Author and Project Details .....	4
2	Council Requirements.....	5
3	Demolition .....	5
3.1	Waste Generation .....	5
3.2	Waste Management.....	5
3.3	Waste Avoidance and Reduction .....	5
4	Construction .....	6
4.1	Waste Generation .....	6
4.2	Waste Management.....	7
4.3	Waste Avoidance and Reduction .....	7
5	Ongoing Operation.....	8
5.1	Waste Generation .....	8
5.1	Waste Storage .....	9
5.2	On-going Waste Removal Procedures .....	9
5.3	Education .....	10

### List of Tables

Table 1: Estimated Demolition Waste Generation .....	5
Table 2: Estimated Construction Waste Generation .....	6
Table 3: Operational Waste Generation .....	8
Table 4: Proposed Waste Management of the Site .....	9

#### SYDNEY

P (02) 9659 0005  
E sydney@brs.com.au

#### CENTRAL COAST

P (02) 4325 5255  
E coast@brs.com.au

#### HUNTER

P (02) 4966 8388  
E hunter@brs.com.au

#### COFFS HARBOUR

P (02) 5642 4222  
E coffs@brs.com.au

#### NORTHERN RIVERS

P (02) 6681 6696  
E northernrivers@brs.com.au

#### SOUTH EAST QUEENSLAND

P (07) 5582 6555  
E seqld@brs.com.au

## 1 Author and Project Details

Author Details	
Name	Barker Ryan Stewart
Address	Studio 5, 78 York Street, East Gosford
Phone number(s)	4325 5255
Email	planning@brs.com.au

Development Details	
Project Details	Early works (tree removal and stormwater drainage) and construction of Residential Flat Buildings and multi dwelling housing, carparking and associated landscaping works.
Address of Development	18 Macleay Avenue, Woy Woy
Existing Buildings and other structures currently on the site	The site is currently vacant of structures.
Description of proposed development	<p>The development as proposed generally includes the following:</p> <ul style="list-style-type: none"> <li>• Construction of a residential development for the purpose of affordable housing comprising the following:                             <ul style="list-style-type: none"> <li>○ 18 units within the Residential Flat Building form (units at ground and first floor levels); and</li> <li>○ 3 villas with a single storey form.</li> </ul> </li> <li>• Central vehicle driveway providing access from Macleay Avenue to the parking area at the rear;</li> <li>• At grade parking facilities to accommodate 27 vehicles (inclusive of 2 accessible spaces), turning bay, car wash bay and one shared space.</li> <li>• Screened waste bin storage area; and</li> <li>• Communal areas including:                             <ul style="list-style-type: none"> <li>○ Central communal space; and</li> <li>○ Vegetable garden.</li> </ul> </li> </ul>

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, OEH or WorkCover NSW.

Contact Name Ben Miller

Date 13 December 2023

## 2 Council Requirements

This WMP has been prepared having regard for the specific waste management objectives of the Central Coast Council Waste Management Guidelines (2022), which are:

- waste avoidance and reduction;
- re-use;
- recycling;
- recover energy;
- treatment; and
- disposal to landfill (as a last resort).

## 3 Demolition

### 3.1 Waste Generation

The site is currently vacant of structures and demolition will be confined to existing stormwater infrastructure, existing pathways along the eastern and western boundaries and tree removal. Table 1 below identifies the estimated demolition waste generation associated with the development.

Table 1: Estimated Demolition Waste Generation

Type of Waste Generated	Reuse	Recycle	Disposal	Comment
	Estimate Volume (m <sup>3</sup> )	Estimate Volume (m <sup>3</sup> )	Estimate Volume (m <sup>3</sup> )	Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
Concrete/ Stormwater infrastructure	-	15m <sup>3</sup>	-	Any concrete waste will be crushed and transported to other construction sites or through a Material Recovery Facility.
Garden organics	15m <sup>3</sup>	10m <sup>3</sup>	-	Some organic matter will be reused as mulch/ soils on other Council sites as requested. Any organic matter not directed to Council sites will be reused as mulch on other sites or recycled through a private contractor.

### 3.2 Waste Management

Waste management during demolition and construction will be provided as part of a construction management plan included as part of the construction certificate process. Reuse/ recycling contractor and landfill site for disposal to be determined at Construction Certificate stage.

### 3.3 Waste Avoidance and Reduction

- Only demolish the necessary parts of the buildings on site and reuse where possible the existing structures;
- Salvage materials for recycling and reuse during the demolition process; and
- The remaining waste to be transported to a recognised builders recycling yard or waste facility.

## 4 Construction

### 4.1 Waste Generation

Table 2 below identifies the estimated waste generation associated with the construction of the development.

Table 2: Estimated Construction Waste Generation

Type of Waste Generated	Reuse	Recycle	Disposal	Comment
	Estimate Volume (m <sup>3</sup> )	Estimate Volume (m <sup>3</sup> )	Estimate Volume (m <sup>3</sup> )	Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
Excavation material	25m <sup>3</sup>	-	-	Excavated materials for OSD will be reused as fill on other developments or on-site.
Timber (Side façade / dressed)	4.5m <sup>3</sup>	12.5m <sup>3</sup>	-	Transferred to waste management facility or recycling facility.
Gyprock / Cladding	-	11m <sup>3</sup>	-	Transferred to waste management facility or recycling facility.
Concrete	9m <sup>3</sup>	-	-	Any excess concrete will be retained in the truck and used elsewhere.
Masonry (Hebel Block/Fibre cement sheeting/ Pavers)	4.5m <sup>3</sup>	8.9m <sup>3</sup>	-	Transferred to waste management facility or recycling facility.
Tiles (roof)	N/A	N/A	N/A	No roof tiles to be used.
Metal (roofing / framing / façade)	5m <sup>3</sup>	9.5m <sup>3</sup>	-	Transferred to waste management facility or recycling facility.
Glass	-	-	-	All glass will be made to order
Furniture	-	-	-	Not at this stage.
Fixtures / fittings	3.6m <sup>3</sup>	-	-	Fixtures will be generally made to order. Any excess will be returned to the supplier or used on other sites.
Floor coverings	-	4m <sup>3</sup>	4m <sup>3</sup>	Transferred to waste management facility or recycling facility.
Packaging (used pallets / pallet wrap)	10m <sup>3</sup>	5m <sup>3</sup>	-	Pallets will be transferred to a Material Recovery Facility. Wrap and packaging will be a transferred to Councils Waste Management Facility.
Garden organics	3.5m <sup>3</sup>	-	-	Organics will be ordered to size in accordance with the quantity survey.
Containers (cans / plastic / glass)	-	8m <sup>3</sup>	-	Containers will be a transferred to Councils Waste Management Facility.
Paper / cardboard	-	2.5m <sup>3</sup>	-	Transferred to waste management facility or recycling facility.

<b>Residual waste</b>			8m <sup>3</sup>	Residual waste will be transferred to Councils Waste Management Facility.
<b>Hazardous / special waste (specify)</b>	N/A	N/A	N/A	No hazardous materials will be utilised in the construction.

## 4.2 Waste Management

Waste management during demolition and construction will be provided as part of a construction management plan included as part of the construction certificate process.

## 4.3 Waste Avoidance and Reduction

- All fixtures and fittings will be made to measure;
- All materials will be ordered in accordance with a bill of quantities;
- Recycled materials will be utilised where ever possible;
- Measures will be taken to ensure the construction contractor is aware of the waste management procedures and adheres to appropriate guidelines.
- Salvage materials for recycling and reuse during the construction process; and
- The remaining waste to be transported to a recognised builders recycling yard or waste facility.

## 5 Ongoing Operation

### 5.1 Waste Generation

Table 3 identifies the operational waste generation associated with the proposed development.

Waste generation rates have been derived from the Central Coast Council Waste Guidelines (2022) as follows:

- 120L/ unit/ week – general waste; and
- 120L/ unit/ week – recycling waste.

Two (2) 600L green waste bins have also been provided to service the development as per Table 3 below.

Table 3: Operational Waste Generation

DCP Requirements	Recyclables	General Waste	Green Waste
<b>Residential</b>			
Amount generated (L per week)	120L x 21 units <b>2,520L</b>	120L x 21 units <b>2,520L</b>	
Number and size of bins	2 x 1,100L <b>Total Cycle 2,200L</b> Removed weekly  Refer to justification for the variation to waste bin requirements below.	2 x 1,100L <b>Total Cycle 2,200L</b> Removed weekly  Refer to justification for the variation to waste bin requirements below.	2 x 600L green waste bins will be provided to service the site

The allocated bin numbers and their associated waste volumes propose a variation to the DCP control. Where 2,520L is required by the DCP weekly for both general and recycling waste, the proposed bins will accommodate a volume of 2,200L for general waste and the same for recycling which represents a variation of 320L per week.

The Council waste generation rate for 'multi-unit dwellings' ultimately accounts for dwellings up to 3-4 bedrooms in size that would be regularly proposed in townhouse style developments. The proposed affordable housing development provides seventeen x one bedroom units and four x 2 bedroom units. One bedroom units managed by Pacific Link Housing (PLH) often accommodate single residents therefore the waste generation rate of 120L per week is considered to be significantly above the site specific requirements for this development. PLH have confirmed the bins proposed will comfortably accommodate the waste generated by a resident base of 17 one bedroom and 4 two bedroom units under their management.

Further to the above, the NSW EPA Guide to Waste Generation – 'Better Practice Guide for Resource Recovery in Residential Development' (Table F2) indicates the following specific requirements for 1 and 2 bedroom units:

- 1 bedroom units – 80L/ unit/ week each for general waste, recycling and 25L for organics.
- 2 bedroom units – 100L/ unit/ week each for general waste, recycling and 25L for organics.

This equates to the following waste generation which is considered to be provide a more realistic assessment for the smaller bedroom properties:



- 2,000L per week for general waste;
- 2,000L per week for recycling waste; and
- 525L per week for organics.

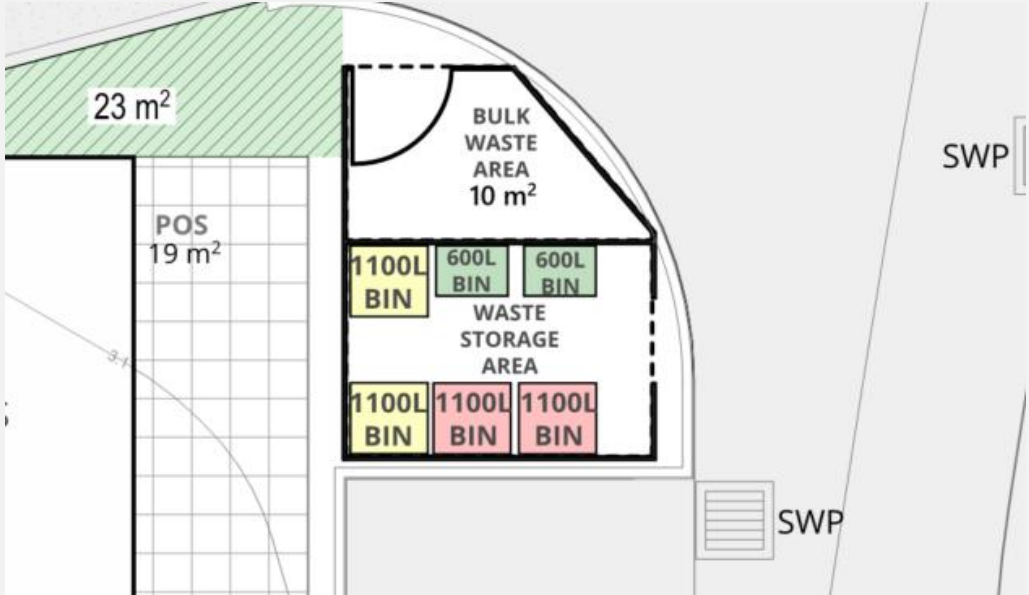
The development has been designed to comply with these EPA Guide requirements.

Further to the above it should be acknowledged that the EPA have determined that 120L requirements for both general and recycling waste should be applied to 3 bedroom apartments or greater.

### 5.1 Waste Storage

Table 4 identifies the proposed waste management of the site.

Table 4: Proposed Waste Management of the Site

Bin Storage Area	
Floor area for storage bins (m <sup>2</sup> )	The waste storage enclosure has been designed to accommodate the number of bins required to service the site. Refer to snip below for details.
Green Waste	An area has been provided for the storage of green waste bins. Refer snip below for details.
Bulky Waste	A 10m <sup>2</sup> area has been provided for the storage of bulky waste within the dedicated waste storage area. Refer snip below for details.
Floor area required for manoeuvrability (m <sup>2</sup> )	<p>The storage area is wide enough for bins to move passed each other while leaving enough space for human passage between passing bins.</p> 
Height required for manoeuvrability (m)	The waste storage area is provided with adequate height for residents to enter and place bagged waste from their units into the bulk bins. Bin lifters will not be required.

### 5.2 On-going Waste Removal Procedures

- Residents will transfer their general and recycle waste to the bins located in the waste storage enclosure adjacent to the car park;

- Council waste vehicles will enter the site and collect waste from the area adjacent to the waste enclosure at the rear of the site. The Council waste vehicle can enter and exit the site in a forward direction. Refer to swept paths provided in the Traffic Impact Assessment (submitted under separate cover) for confirmation.
- **Maintenance:** Management shall be responsible for the maintenance of signage and the security of the waste storage enclosure.
- **Hygiene:**
  - An arrangement will be made with a bin cleaning contractor for regular bin cleaning. The bin contractor will provide a specialised filtration service to ensure pollutants are collected by the mobile unit and appropriately disposed in accordance with EPA Guidelines.

### 5.3 Education

- Intelligible signage will be erected in the garbage storage areas to identify which bins should be used for different waste and recyclable materials in accordance with the Councils waste minimisation policy.
- Pacific Link Housing will provide all residents with a copy of this WMP to inform them on the concepts of waste minimisation and recycling.