

# Waste Management Plan

4-8 Spruhan Avenue, Norlane

June 2022

ratio:waste



<b>Version</b>	<b>Date</b>	<b>Reason for Issue</b>	<b>Prepared By</b>	<b>Checked By</b>
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# 1 Introduction

## 1.1 Project Details

### Site Address

4-8 Spruhan Avenue, Norlane

### Local Council

Greater Geelong City Council - Phone: (03) 5272 5272

### Development Summary

Waste Source	No. of Days of Operation/Week	Net Lettable Area (m2)
<i>Multi-Purpose Hall</i>	5	135
<i>Co-working</i>	5	48
<i>Office</i>	5	14
<i>Makers Space</i>	5	52
<i>Café</i>	5	66
<i>Kitchen</i>	3	31
Total		346

## 1.2 Purpose

This Waste Management Plan has been prepared, to accompany the town planning application.

## 1.3 Limitations

Waste management arrangements during the construction and fit-out stages of the development, and on-going operation and monitoring of the waste management arrangements for the development following the occupation of the development are outside the scope of this Waste Management Plan.

## 1.4 Relevant Guidelines and Policies

Relevant policies and guidelines considered as part of the preparation of this Waste Management Plan include:

- Australian Government – National Waste Policy: Less Waste, More Resources (2018).
- Victorian Government – Recycling Victoria: A New Economy (2020).
- Sustainability Victoria – Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments (2018).
- EPA Noise Control Guidelines (2021).

# 2 Operational Waste Management Guide

## 2.1 Guide for Commercial Tenants

### General Waste Disposal

- Tenants shall place general waste into dedicated general waste receptacles (to be provided by the tenant).
- Tenants shall take full general waste receptacles to the waste room and empty them into the general waste collection bins.
- General waste must be placed within tied bags (biodegradable material recommended) prior to being placed into the general waste collection bins.

### Organics Disposal

- Tenants shall place food scraps into dedicated organics caddies.
- Tenants shall take full organics caddies to the waste room and empty them into the organics collection bin
- Organics must be unbagged or placed within approved compostable bags prior to being placed into the organics collection bin.

### Recycling Disposal

- Tenants shall place recycling into dedicated recycling receptacles (to be provided by the tenant).
- Tenants shall take full recycling receptacles to the waste room and empty them into the recycling collection bins.
- Bottles, cans, and containers must be rinsed, cardboard flattened, and lids/packaging separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/arl/>) prior to being placed into the recycling collection bins.

### Paper/Cardboard Disposal

- Tenants shall place recycling into dedicated paper/cardboard receptacles (to be provided by the tenant).
- Tenants shall take full receptacles to the waste room and empty them into the paper/cardboard collection bins.
- Cardboard must be flattened flattened, and lids/packaging separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/arl/>) prior to being placed into the recycling collection bins.

### Disposal of Other Waste Streams

- **Soft Plastics:** tenants shall take soft plastics to a nearby drop-off location.
- **E-Waste:** tenants shall take e-waste to a dedicated e-waste bin located within the hard waste area of the commercial waste room (e-waste bin to be provided by an e-waste collection contractor). Tenants can also take e-waste to a nearby drop-off location. E-waste is prohibited under Victorian state law to be disposed of in landfill.

## 2.2 Guide for Building Management

Building Management will be responsible for the following:

- Ongoing management of the waste management system including the maintenance of all waste rooms, and associated equipment and components, to the satisfaction of all waste system users and the relevant authority, and in accordance with the manufacturer's specifications.
- Engaging an appropriate contractor(s) to conduct services, replacements, or upgrades, as required.
- Engaging and managing the waste collection contractor(s).
- Ensuring the waste collection contractor(s) have access to the refuse room on collection days.
- Publishing and distributing information to ensure that all waste system users are familiar about the waste management system and the waste rooms.
- Informing all waste system users that bagged recycling and glass is not permitted.
- Advising all waste system users on where and how to dispose of their waste.
- Engaging a specialist contractor to collect and dispose of cooking oil associated with the commercial tenancies.
- Securing all waste rooms and labelling/numbering the bins according to the property address to protect the equipment from theft and vandalism.
- Servicing all public areas through sweeping and removal of litter on a regular basis to prevent stormwater pollution.
- Preventing overfilled bins by keeping lids closed.
- Ensuring that bins are not removed from the site.
- Ensuring that the waste rooms and associated waste management equipment are provided as per the design requirements outlined in Section 6.

## 2.3 Waste Management Plan Communication Strategy

It is Building Management's responsibility to ensure that all waste systems users are informed about the development's waste management system, including where and how to correctly dispose of each waste stream. It is highly recommended that this Waste Management Plan is electronically provided to all residents and commercial tenants.

The waste collection contractor(s), in conjunction with Building Management) shall provide educational material to inform all waste system users about the development's waste management system and advise all waste system users how to correctly separate and dispose of each waste stream with care, to minimise waste sent to landfill and reduce the contamination of recyclables.

## 2.4 Waste Management Plan Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, Building Management shall be responsible for coordinating the necessary Waste Management Plan revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Revision of the services provided by the waste collection contractor(s).
- Re-education of users.
- Any necessary statutory / regulatory requirements / approvals.

# 3 Commercial Waste Volume Assessment

Sustainability Victoria’s ‘Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments’ specify the following general waste and recycling generation rates relevant to the commercial component of the development:

## Offices

*Adopted for all office/co-working/multi-purpose hall/makers space areas*

- General Waste: 10 L/100m<sup>2</sup> floor area/day
- Recycling: 10 L/100m<sup>2</sup> floor area/day

## Cafés

*Adopted for the café space*

- General Waste: 300 L/100m<sup>2</sup> floor area/day
- Recycling: 200 L/100m<sup>2</sup> floor area/day

## Takeaway

*Adopted for the kitchen space*

- General Waste: 300 L/100m<sup>2</sup> floor area/day
- Recycling: 200 L/100m<sup>2</sup> floor area/day

To allow for the separation of organics and glass from the general waste and recycling streams, the above waste generation rates have been modified to allow for an 80:20 split for general waste:organics and an 50:50 split for recycling:paper/cardboard.

It has been assumed that the office spaces will be in operation for five days per week and the kitchen space will be in operation for three days per week.

Applying the above waste generation rates, the commercial waste generation estimates are outlined in Tables 3.1 and 3.2 below.

**Table 3.1: Commercial Refuse Room 1 General Waste & Organics Volume Estimates**

Waste Source	Net Lettable Area (m <sup>2</sup> )	No. of Days of operation/Week	General Waste Generation Rate (L/100m <sup>2</sup> /day)	General Waste Volume (L/Week)	Organics Generation Rate (L/100m <sup>2</sup> /day)	Organics Volume (L/Week)
Multi-Purpose Hall	135	5	10	68	0	0
Co-working	48	5	10	24	0	0
Office	14	5	10	7	0	0
Makers Space	52	5	10	26	0	0
Café	66	5	150	495	38	124
Kitchen	31	3	90	84	23	21
<b>Total</b>	<b>346</b>	-	-	<b>703</b>	-	<b>145</b>

**Table 3.2: Commercial Refuse Room 1 Recycling & Paper/Cardboard Volume Estimates**

Waste Source	Net Lettable Area (m2)	No. of Days of operation/Week	Recycling Generation Rate (L/100m <sup>2</sup> /day)	Recycling Volume (L/Week)	Paper/Cardboard Rate (L/100m <sup>2</sup> /day)	Paper/Cardboard Volume (L/Week)
Multi-Purpose Hall	135	5	5	34	5	34
Co-working	48	5	5	12	5	12
Office	14	5	5	4	5	4
Makers Space	52	5	5	13	5	13
Café	66	5	62.5	206	63	206
Kitchen	31	3	37.5	35	38	35
<b>Total</b>	<b>346</b>	<b>-</b>	<b>-</b>	<b>303</b>	<b>-</b>	<b>303</b>

# 4 Waste Equipment & Storage Requirements

## 4.1 Waste Storage Requirements

The waste storage requirements for the commercial component of the development are outlined in Table 4.1 below.

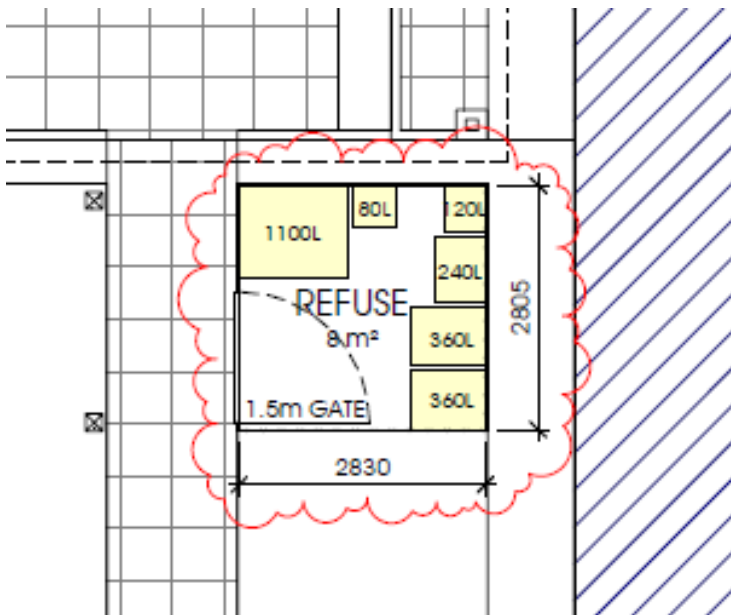
**Table 4.1: Refuse room equipment & storage**

Waste Stream	Bin Size (L)/Equipment Type	Quantity	Height per bin (mm)	Width per bin (mm)	Depth per bin (mm)	Footprint (m <sup>2</sup> )
General waste	1100	1	1330	1240	1070	1.33
Organics	120	1	930	480	545	0.26
Recycling	360	1	1100	680	848	0.58
Paper & cardboard	360	1	1100	680	848	0.58
Green/garden waste	240	1	825	440	496	0.22
E-waste	80	1	1060	585	730	0.43
Total Footprint Required Excluding Circulation (m <sup>2</sup> ):						3.39
Total Area Provided (m <sup>2</sup> )						7.94

## 4.2 Refuse room Layout

The refuse room layout for the development is shown below.

**Table 4.2: Refuse room layout**



# 5 Waste Collection Details

## 5.1 Commercial Waste Collection Requirements

**Table 5.1: Commercial Refuse Room 1 Waste Collection Requirements**

Waste Stream	Volumes (L/week)	Bin Size (L)/Equipment Type	Quantity	Collection Frequency (per week)	Capacity (L/week)
General waste	703	1100	1	1	1100
Organics	145	120	1	1	120
Recycling	303	360	1	1	360
Paper & cardboard	303	360	1	1	360
Green/garden waste	NA	240	1	1	240
E-waste	NA	80	1	On-call	NA

## 5.2 Waste Collection Methodology

The collection of waste and recycling bins is to be performed by a private collection contractor. The Building Manager shall prepare garbage bins for collection and provide access to the collection contractor. The collection contractor will enter the carpark via Spruhan Avenue. The collection contractor will wheel bins from the refuse room to the rear of the collection vehicle for emptying, and then return the emptied bins to the refuse room once collection has been completed. The collection procedure is expected to take no longer a few minutes. A 6.4-metre-long mini rear loader is expected to perform collection. No clearance height issues have been identified.

## 5.3 Waste Collection Time

Waste collection shall be undertaken in accordance with EPA Noise Control Guidelines (2021) as outlined below:

- Collections occurring once a week should be restricted to the hours 6am — 6 pm Monday to Saturday.
- Collections occurring more than once a week should be restricted to the hours 7 am — 6 pm Monday to Saturday.
- Further to the above, waste collection should occur outside the site’s operation hours, to ensure that the carpark is free for the waste vehicle to turn around to enable entry/exit in a forwards direction. Therefore, the waste collection should occur between the hours of 6-8am.

# 6 Design Standards

## 6.1 Refuse Room Design Requirements

- Comply with Building Code of Australia (BCA) and all relevant Australian Standards;
- Allow storage of all collection bins on site at all times;
- Allow easy access for users of the bins;
- Allow easy, direct and convenient transfer of bins to the collection point;
- Bin rooms shall be appropriately screened to prevent unsightly impacts on amenity; and
- Artificial light shall be provided where necessary outside the bin room to enable occupiers of the site to always dispose of waste safely and appropriately.
- The bin rooms shall be sized to accommodate all waste arising on the premises together with any associated equipment for handling the generated waste. The area designated for bin storage is based on the number of bins and the physical dimensions of the bins;
- The bin room shall be maintained to ensure that the aesthetics of the development are not compromised.
- Each bin shall be accessible and manoeuvrable in and out of the bin room with minimum handling of other bins; and
- The floor of the bin rooms shall be constructed of concrete (or similar) and shall be finished to a smooth even surface covered at the intersection of walls and plinths.
- The bin rooms shall be ventilated in accordance with the requirements of the Building Code of Australia and AS1668.2;
- Ventilation openings shall be protected against flies and vermin;
- Doors shall be tight fitting;
- A graded bin washing area (connected to waste water, with a litter trap connected to prevent wastewater pollution) and wall-mounted hosecock should be provided for washing bins, in accordance with the relevant authority requirements.

## 6.2 Bin Colour Requirements

- Garbage bins with a black body and red lid.
- Commingled recycling bins with black body and yellow lid.
- Organics bins with a black body and maroon lid.
- Paper/Cardboard recycling bins with black body and light blue lid.
- Green/garden waste bins with black body and light green lid.
- E-waste bins can be any other colour.

## 6.3 Internal Waste Receptacle Requirements

- Suitably sized receptacles no larger than 60 litres for general waste, organics, recycling, glass, and soft plastics to ensure ease of manual handling. Note: If receptacles are larger than 60 litres, a bin lifter will be required in the refuse room.

# 7 Contact Information

Table 7.1 below includes a complimentary listing of contractors and equipment suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

**Table 7.1: Contractors and Supplier Details**

Service	Contractor/ Supplier	Phone	Website
Private Waste Collection Contractor and/or Bin Supplier	Cleanaway	13 13 39	<a href="http://www.cleanaway.com.au">www.cleanaway.com.au</a>
	CSC Waste & Recycling	1300 499 927	<a href="http://www.cscwaste.com.au">www.cscwaste.com.au</a>
	iDump	1300 443 867	<a href="http://www.idump.com.au">www.idump.com.au</a>
	JJ Richards	03 9794 5722	<a href="http://www.jjrichards.com.au">www.jjrichards.com.au</a>
	Premier Waste	1300 219 001	<a href="http://www.premierwaste.com.au">www.premierwaste.com.au</a>
	SUEZ	13 13 35	<a href="http://www.suez.com.au/en-AU">www.suez.com.au/en-AU</a>
	Veolia	132 955	<a href="http://www.veolia.com/anz">www.veolia.com/anz</a>
	Wastewise Environmental	1300 550 408	<a href="http://www.wastewise.com.au">www.wastewise.com.au</a>
	Sulo Australia	1300 364 388	<a href="http://www.sulo.com.au">www.sulo.com.au</a>
Bin Washing	The Bin Butlers	1300 788 123	<a href="http://www.thebinbutlers.com.au">www.thebinbutlers.com.au</a>
	Calcorp Services	1800 225 267	<a href="http://www.calcorpservices.com.au">www.calcorpservices.com.au</a>
	Kerbside Clean-A-Bin	03 9830 7381	<a href="http://www.kerbsidecleanabin-srp.com.au">www.kerbsidecleanabin-srp.com.au</a>
	WBCM Environmental Australia	1300 800 621	<a href="http://www.wbcm-aust.com.au">www.wbcm-aust.com.au</a>
Odour Control	Eco-Safe Technologies	1300 135 039	<a href="http://www.eco-safe.com.au">www.eco-safe.com.au</a>
	WBCM Environmental Australia	1300 800 621	<a href="http://www.wbcm-aust.com.au">www.wbcm-aust.com.au</a>
E-Waste Collection	Tech Collect	1300 229 837	<a href="http://www.techcollect.com.au">www.techcollect.com.au</a>



## Appendix A **Plans Assessed:**

