# OAKDALE EAST ESTATE

Stage 2 Waste Management Plan

Prepared for: Goodman Property Services (Aust) Pty Limited The Hayesbery 1-11 Hayes St Rosebery NSW 2018



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# **BASIS OF REPORT**

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust) Pty Limited (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

# DOCUMENT CONTROL

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# 1 Introduction

## 1.1 Overview

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by Goodman Property Services (Aust) Pty Ltd (the Client) to prepare a waste management plan (WMP) in support of a state significant development application (SSDA). This application seeks approval for a Concept Plan across Goodman's Oakdale East Industrial Estate and approval for Stage 2 of works at the Estate (the Development). The site is located within the Fairfield Local Government Area and is legally described as Lot 102 and Lot 103 in DP1268366.

This WMP applies to the waste generated from construction and operational stages of the Development and has been prepared using architectural drawings supplied by the Client. A development application for rehabilitation of the site is currently being considered by Fairfield City Council (Council). This DA includes demolition of buildings on the site. As a result, demolition is not covered by this WMP.

The relevant requirements of the SEARs issued for SSD-37486043 are addressed in this report as shown in Table 1. SLR has also referred to the Fairfield Citywide Development Control Plan (Fairfield DCP) 2013<sup>1</sup> and Council's Waste Management Plan - Demolition, Construction & Ongoing Management to assist in preparing this waste management plan.

### Table 1SSD-34786043 Conditions for Waste Management

SSD-9794	4683 and SSD-7348 MOD 6 Conditions	Relevant Sections in this WMP
Waste Ma	anagement – including:	
•	details of the quantities and classification of all waste streams to be generated during demolition, construction and operation and proposed storage, handling and disposal requirements	Section 5 and Section 6
•	a waste management plan reflecting the targets in the NSW Waste and Sustainable Material Strategy 2041 and the National Waste Policy 2018.	Section 4.1, Section 5.1 and Section 6.1

## 1.2 Objectives

The principal objective of this WMP is to identify all potential waste likely to be generated at the Development site during construction and operational phases, including a description of how waste would be handled, processed and disposed of, or re-used or recycled, in accordance with Council's requirements.

The specific objectives of this WMP are as follows:

- To encourage the minimisation of waste production and maximisation of resource recovery.
- To ensure the appropriate management of contaminated and hazardous waste.
- To identify procedures and chain of custody records for waste management.
- To assist in ensuring that any environmental impacts during the operational life of the Development comply with Council's development consent conditions and other relevant regulatory authorities.

<sup>&</sup>lt;sup>1</sup> <u>https://www.fairfieldcity.nsw.gov.au/Planning-and-Building/Developments-and-Buildings/Development-Control-and-Structure-Plans</u>



# 2 Project Description

## 2.1 Overview of Proposed Development

Stage 1 of the works were completed in September 2021 and included Precinct 1 building and infrastructure works as indicated on the proposed Estate Masterplan.

The Concept Plan is proposed to set the development controls for the Estate which will override the Development Control Plan (DCP) that is currently with Department of Planning and Environment (DPE) for consideration. This DCP has been lodged with DPE to support the Rehabilitation Development Application that is currently with Fairfield City Council for consideration.

The Rehabilitation Development Application seeks approval for works only to Precinct 1 expansion, Precincts 2, 3 and 4 and includes the following (this application excludes works to Precinct 5):

- Cut and Fill works to provide bulk pad levels
- Provision of Estate stormwater infrastructure including completion of detention basins and swales
- Removal of 2.58 ha of vegetation
- Demolition of the Brick Factory and rehabilitation of the surrounding land
- Installation of one retaining wall on the eastern portion of Precinct 3
- Consideration for Aboriginal Heritage and geotechnical assessments

The proposed Concept Plan approval seeks approval for:

- The proposed Estate masterplan allowing development of 303,009 m<sup>2</sup> of GLA
- Operation 24 hours per day, seven days per week
- Building Height of 43 m for Precinct 3, excluding roof-top plant and solar, and 15 m, excluding roof-top plant and solar, to the remainder of the Estate
- Estate subdivision
- Estate wide planning controls as shown in the EIS
- Construction hours 7 am to 6 pm Monday to Friday, 8 am to 1 pm Saturday
- Geotechnical and Aboriginal Heritage considerations for Precinct 5.

The Stage 2 works considered under this application include the following:

- Cut and fill works to Precinct 5 only to provide bulk pad level
- Completion of lead-in infrastructure works including intersection upgrades at Millner Ave and Old Wallgrove Road and Lenore Drive and Old Wallgrove Road
- Clearing of 02.28 ha of vegetation
- Completion of the internal road network, excluding the proposed private driveway providing access to Precinct 5 but including all other roads shown on the proposed masterplan
- Reticulation of services infrastructure to provide serviced development pads to all precincts



- Completion of retaining walls across the entire Estate
- Completion of Building works to Precinct 1 expansion and Precinct 3 including any ancillary on lot infrastructure and detailed civil works required.

Precinct 1 expansion:

- Construction, operation, fit-out and use approval of a warehouse with ancillary office spanning 3,122 m<sup>2</sup> of GLA
- Operation 24 hours per day, seven days per week
- 15 m building height, excluding solar and rooftop plant.

Precinct 3:

- Construction, operation, fit-out and use approval of a temperature controlled automated distribution centre
- Total GLA of 96,810 m<sup>2</sup> including 10,009 m<sup>2</sup> of which is for future expansion
- In addition to this, 38,050 m<sup>2</sup> of mezzanines will be installed within the premises
- 43 m building height, excluding solar and rooftop plant
- Storage of dangerous goods and flammable goods that exceed the SEPP33 threshold and
- Operation 24 hours per day, seven days per week.

The location of the subject developments are shown in Figure 1 below.

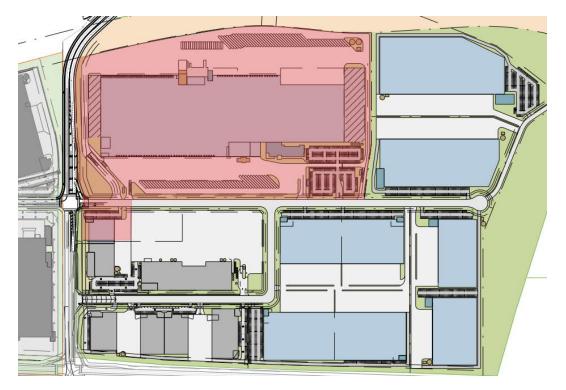
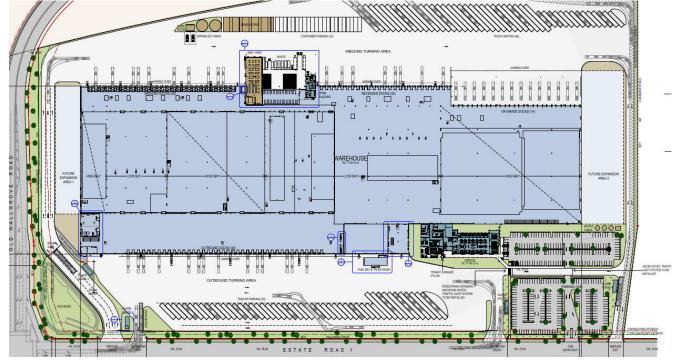


Figure 1 Precinct 3 and warehouse expansion

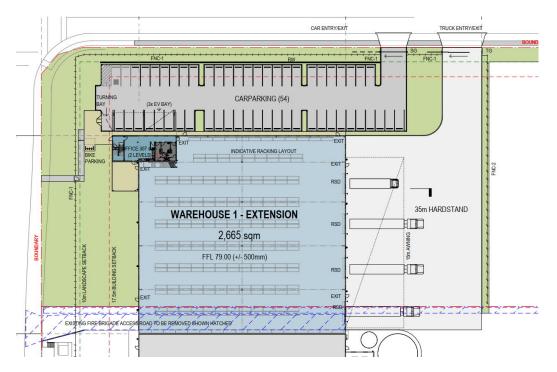




The design for Precinct 3 is shown in Figure 2 below.

## Figure 2 Precinct 3

The design for the warehouse expansion is shown in Figure 3 below.





## 2.2 Overview of Proposed Construction Work

The proposed work for the Development is expected to include construction activities.

The anticipated construction works includes the construction of the below:

- One warehouse building and offices
- Truck and car parking areas and associated site hardstands
- Warehouse expansion and hardstand, and
- Minor landscaping areas.

## 2.3 Overview of Proposed Operations

SLR understands that the Development will be used as a warehouse and distribution centre, with anticipated operations 24 hours a day.

# 3 Better Practice Waste Management and Recycling

## 3.1 Waste Management Hierarchy

This WMP has been prepared in line with the waste management hierarchy shown in Figure 4, which summarises the objectives of the Waste Avoidance and Resource Recovery Act 2001.

The waste management hierarchy comprises the following principles, from most to least preferable:

- Waste avoidance, prevention or reduction of waste generation. Achievable through better design and purchasing choices.
- Waste reuse, reuse without substantially changing the form of the waste.
- Waste recycling, treatment of waste that is no longer usable in its current form to produce new products.
- Energy recovery, processing of residual waste materials to recover energy.
- Waste treatment, reduce potential environmental, health and safety risks.
- Waste disposal, in a manner that causes the least harm to the natural environment.

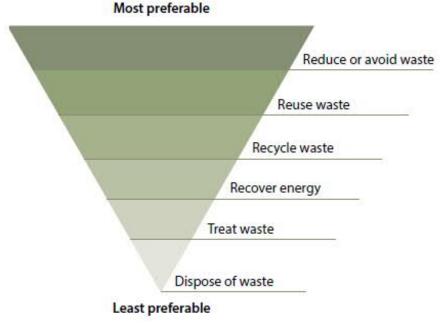


Image from NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21.

### Figure 4 Waste management hierarchy

## 3.2 Benefits of Adopting Better Practice

Adopting better practice principles in waste minimisation offers significant benefits for organisations, stakeholders and the wider community. Benefits from better practice waste minimisation include:

- Improved reputation of an organisation due to social and environmental responsibility.
- Lowered consumption of non-renewable resources.
- Reduced environmental impact, for example, pollution, from materials manufacturing and waste treatment.
- Reduced expenses from lower waste disposal.
- Providing opportunities for additional revenue streams through beneficial reuse.

# 4 Waste Legislation and Guidance

## 4.1 National Waste Policy

The first National Waste Policy was published in 2009 with an updated version in 2018. The National Waste Policy Action Plan sets targets and actions to implement the 2018 National Waste Policy.

These targets and actions include:

- ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020
- reduce total waste generated in Australia by 10% per person by 2030
- 80% average recovery rate from all waste streams by 2030

- significantly increase the use of recycled content by governments and industry
- phase out problematic and unnecessary plastics by 2025
- halve the amount of organic waste sent to landfill by 2030
- make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.

How much this development contributes to these targets and actions depends somewhat on the occupant and its operations. The most direct influence will probably be an 80% reduction in waste by 2030, which also mirrors the NSW Strategy target. As stated in Section 5.1 and Section 6.1, the demolition, construction and operations stages of the Development are expected to contribute to this target. It is also likely that the Development will contribute to the other actions and targets even if in small ways.

## 4.2 Other Legislation and Guidance

The legislation and guidance outlined in Table 2 below should be referred to during the site preparation, construction and operational phases of the Development.

Legislation and Guidance	Objectives					
Council legislation and guidelines						
Fairfield Local Environmental Plan 2013 (FLEP 2013) <sup>2</sup>	The FLEP came into force for the local government area in 2013 and guides land use and development by zoning land, identifying what land uses are allowed in each zone, and specifying development standards such as maximum height and minimum lot sizes. LEPs are the main planning tool to shape the future of development in Fairfield City.					
Fairfield Citywide Development Control Plan 2013 <sup>3</sup>	The Fairfield DCP came into effect in 2013 and provides greater planning detail for developments, supplementing the zoning and development standards contained within the FLEP 2013. The DCP helps promote better development throughout the city, protecting the community's lifestyle and enjoyment of town centres and neighbourhoods. One of the objectives of the DCP is to assist in reducing Fairfield's ecological footprint by encouraging the diversion of waste from landfill. This WMP specifically addresses Appendix e – waste not policy to manage demolition and construction waste of the DCP and the waste management guidelines in chapter 9 for industrial use.					
State and National legislation and gu	idelines					
Building Code of Australia (BCA) and relevant Australian Standards	The BCA has the aim of achieving nationally consistent, minimum necessary standards of relevant health and safety, amenity and sustainability objectives efficiently.					
Council of Australian Governments National Construction Code 2016	The National Construction Code 2016 sets the minimum requirements for the design, construction and performance of buildings throughout Australia.					
NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012	These better practice guidelines present information on waste minimisation and resource recovery as well as information on commonly used waste management provisions. The guidelines also provide benchmarks for assessing waste production rates in Australia.					

### Table 2Legislation and guidance



<sup>&</sup>lt;sup>2</sup> <u>http://www.fairfieldcity.nsw.gov.au/info/20002/planning\_and\_building/237/leps\_and\_maps</u>

<sup>&</sup>lt;sup>3</sup> http://www.fairfieldcity.nsw.gov.au/info/20002/planning\_and\_building/231/dcps\_and\_structure\_plans

Legislation and Guidance	Objectives
NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027	Replacing the NSW Waste Avoidance and Resource Recovery Strategy (2014-21), the NSW Waste and Sustainable Materials Strategy 2041 focuses on the transition of NSW to a circular economy. The strategy focuses on minimising what is thrown away, and to use and reuse resources more efficiently, making them as productive as possible. The strategy identifies the need to identify infrastructure needs, the mandating of separation of some organic waste streams, and incentivising biogas generation from waste materials.
NSW EPA Resource Recovery Orders and Resource Recovery Exemptions	The NSW EPA has issued a number of resource recovery orders and resource recovery exemptions under the POEO (Waste) Regulation 2014 for a range of waste that may be recovered for beneficial re-use. These waste typically include those from demolition and construction works, as well as operational waste such as food waste.
	<ul> <li>Resource recovery orders present conditions which generators and processors of waste must meet to supply the waste material for beneficial re-use.</li> </ul>
	<ul> <li>Resource recovery exemptions contain the conditions which consumers must meet to use waste for beneficial re-use.</li> </ul>
NSW EPA's Waste Classification Guidelines 2014	The NSW EPA Waste Classification Guidelines assists waste generators to effectively manage, treat and dispose of waste to ensure the environmental and human health risks associated with waste are managed appropriately and in accordance with the POEO Act 1997 and is associated regulations.
Protection of the Environment Operations Act (POEO) 1997 and Amendment Act 2011	The POEO Act 1997 and POEO Amendment Act 2011 are administered by the NSW Environment Protection Authority (NSW EPA) to enable the NSW Government to establish instruments for setting environmental standards, goals, protocols and guidelines. They outline the regulatory requirements for lawful disposal of waste generated during the demolition, construction and operational phases of a development, as well as the system for licencing waste transport and disposal.
The Work Health and Safety Regulation 2017	The Work Health and Safety Regulation 2017 provide detailed actions and guidance associated with the topics discussed in The Work Health and Safety Act 2011. The primary aim of the regulation is to protect the health and safety of workers and ensure that risks are minimised in work environments. Workplaces are to ensure that they are compliant with the requirements specified in the regulations. The regulations discuss items such as actions that are prohibited or obligated in work environments, the requirements for obtaining licences and registrations, and the roles and responsibilities of staff in workplaces.
Waste Avoidance and Resource Recovery Act 2001	The Waste Avoidance and Resource Recovery Act 2001 aims to promote waste avoidance and resource recovery and repeals the Waste Minimisation and Management Act 1995. Specific objectives of the Waste Avoidance and Resource Recovery Act 2001 include:
	encouraging efficient use of resources
	<ul> <li>minimising the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste</li> </ul>
	<ul> <li>ensuring industry and the community share responsibility in reducing/dealing with waste, and</li> </ul>
	<ul> <li>efficiently funding of waste/resource management planning, programs and service delivery.</li> </ul>
	As of 2016, the addition to the Act of Part 5 defines the legislative framework for the "Return and Earn Container Deposit Scheme" whereby selected beverage containers can be returned to State Government authorities for a monetary refund.

# 5 Construction Waste and Recycling Management

## 5.1 Targets for Resource Recovery

Targets for new development are expected to contribute to state-specific targets. The NSW Waste and Sustainable Materials Strategy 2041 (DPIE, 2021) sets a target of 80% average recovery rate from all waste streams by 2030. Analysis by DPIE (2021) indicates that construction and demolition waste recovery rates in 2018-2019 were 77%.

It is anticipated that the waste minimisation measures in the following sections will assist the Development to meet these targets. Waste reporting and audits can be used to determine the actual percentage of wastes that are being, or have been, recycled during the site preparation, demolition and construction stages of the Development.

## 5.2 Waste Streams and Classifications

The site preparation and construction of the Development is likely to generate the following broad waste streams:

- Construction waste
- Plant maintenance waste
- Packaging waste, and
- Work compound waste from on-site employees.

A summary of likely waste types generated from site preparation and construction activities, along with their waste classifications and proposed management methods, is provided in Table 3.

For further information on how to classify a waste type refer to the NSW EPA (2014) Waste Classification Guidelines<sup>4</sup>. Further information on managing site preparation and construction waste is available from the NSW EPA website<sup>5</sup>.



<sup>&</sup>lt;sup>4</sup> Available online from <u>https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines</u>

<sup>&</sup>lt;sup>5</sup> <u>http://www.epa.nsw.gov.au/your-environment/waste/industrial-waste/construction-demolition</u>

### Table 3 Potential waste types and their management methods

Waste Types	NSW EPA Waste Classification	Proposed Management Method
Construction	•	1
Sediment fencing, geotextile materials	General solid waste (non-putrescible)	Reuse at other sites where possible or disposal to landfill
Concrete	General solid waste (non-putrescible)	Off-site recycling for filling, levelling or road base
Bricks and pavers	General solid waste (non-putrescible)	Cleaned for reuse as footings, broken bricks for internal walls, crushed for landscaping or driveway use, off-site recycling
Gyprock or plasterboard	General solid waste (non-putrescible)	Off-site recycling or returned to supplier
Sand or soil	General solid waste (non-putrescible)	Off-site recycling
Metals such as fittings, appliances and bulk electrical cabling, including copper and aluminium	General solid waste (non-putrescible)	Off-site recycling at metal recycling compounds and remainder to landfill
Conduits and pipes	General solid waste (non-putrescible)	Off-site recycling
Timber	General solid waste (non-putrescible)	Off-site recycling, Chip for landscaping, Sell for firewood Treated: reused for formwork, bridging, blocking, propping or second-hand supplier Untreated: reused for floorboards, fencing, furniture, mulched second hand supplier Remainder to landscape supplies.
Doors, Windows, Fittings	General solid waste (non-putrescible)	Off-site recycling at second hand building supplier
Insulation material	General solid waste (non-putrescible)	Off-site disposal
Glass	General solid waste (non-putrescible)	Off-site recycling, glazing or aggregate for concrete production
Asbestos	Hazardous waste	Off-site disposal at a licenced landfill facility.
Fluorescent light fittings and bulbs	Hazardous waste	Off-site recycling or disposal; contact FluoroCycle for more information <sup>6</sup>
Paint	Hazardous waste	Off-site recycling, Paintback collection <sup>7</sup> or disposal
Synthetic Rubber or carpet underlay	General solid waste (non-putrescible)	Off-site recycling; reprocessed and used in safety devices and speed humps
Ceramics including tiles	General solid waste (non-putrescible)	Off-site recycling at a crushing and recycling company
Carpet	General solid waste (non-putrescible)	Off-site recycling or disposal; reused for landscaping, insulation or equestrian uses

<sup>6</sup> Available online from <u>http://www.fluorocycle.org.au/</u> or <u>http://www.environment.gov.au/settlements/waste/lamp-mercury.html</u>



<sup>&</sup>lt;sup>7</sup> Available online from <u>https://www.paintback.com.au/</u>

Waste Types	NSW EPA Waste Classification	Proposed Management Method		
Plant Maintenance	·			
Empty oil and other drums or containers, such as fuel, chemicals, paints, spill clean ups	Hazardous waste: Containers were previously used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid waste (non-putrescible): Containers have been cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility.		
Air filters and rags	General solid waste (non-putrescible)	Off-site disposal		
Oil filters	Hazardous waste	Off-site recycling		
Batteries	Hazardous waste	Off-site recycling, Contact the Australian Battery Recycling Initiative <sup>8</sup> for more information		
Packaging				
Packaging materials, including wood, plastic, including stretch wrap or LLPE, cardboard and metals	General solid waste (non-putrescible)	Off-site recycling		
Wooden or plastic crates and pallets	General solid waste (non-putrescible)	Reused for similar projects, returned to suppliers, or off-site recycling. Contact Business Recycling for more information <sup>9</sup>		
Work Compound and Associated O	ffices			
Food Waste	General solid (putrescible) waste	Dispose to landfill with general garbage		
Recyclable beverage containers including glass and plastic bottles, aluminium cans and steel cans	General solid waste (non-putrescible)	Co-mingled recycling at off-site licensed facility or deliver to local NSW container deposit scheme 'Return and Earn' facility <sup>10</sup>		
Clean paper and cardboard	General solid waste (non-putrescible)	Paper and cardboard recycling at off-site licensed facility		
General domestic waste generated by workers such as soiled paper and cardboard and polystyrene	General solid waste (non-putrescible) mixed with putrescible waste	Disposal at landfill		

# 5.3 Construction Waste Types and Quantities

The Fairfield DCP does not provide waste generation rates for construction activities, so SLR has adopted the waste generation rates from Appendix A of The Hills Development Control Plan (DCP) 2012 for estimating the type and quantities of waste generated from construction of the Development.



<sup>8</sup> http://www.batteryrecycling.org.au/home

<sup>&</sup>lt;sup>9</sup> Available online from <u>http://businessrecycling.com.au/search/</u>

<sup>&</sup>lt;sup>10</sup>Available online from <u>http://returnandearn.org.au/</u>

SLR has adopted the 'Factory' and 'Office' rates to measure waste expected from the Development, as the construction of a factory and office is the most relevant in representing the construction of an industrial warehouse and office precinct.

SLR has also referenced Light Duty Asphalt Pavements - Design, Specification and Construction 2002 Australian Asphalt Pavement Association, specifically Table 10 Passenger Car Parking Areas, up to 50-500 Bays, for estimating the amounts of materials required for car park construction and assumed 10% waste.

The construction waste generation rates used are shown in Table 4 below.

	Per Area				Waste t	ypes and quant	ities (m <sup>3</sup> )	)		
Rate Type	(m <sup>2</sup> )	Timber	Concrete	Bricks	Gyprock	Sand or Soil	Metal	Other	Asphalt	Granular Base
Factory	1,000	0.25	2.1	1.65	0.45	4.8	0.6	0.5	0	0
Offices	1,000	5.1	18.8	8.5	8.6	8.8	2.75	5.0	0	0
Car Park 50-500 bays	100	0	0.225	0	0	0	0	0	0.3	1.25
Hardstand	1,000	0	2.1	0	0	4.8	0.6	0.5	0	0

### Table 4Construction waste generation rates

Estimates of the quantities of construction waste generated from the Development are shown in Table 5 below.

### Table 5 Estimated types and quantities of construction waste

Site	Element	Area	Waste types and quantities (m <sup>3</sup> )								
		(m²)	Timber	Concrete	Bricks	Gyprock	Sand or Soil	Metal	Other	Asphalt	Granular Base
	Warehouse	78,842	19.7	130.1	35.5	378.4	47.3	39.4	-	165.6	-
it 3	Car park	9,345	-	-	-	-	-	-	23.36	21.0	93.5
Precinct	Hardstand	87,207	-	-	-	418.6	52.3	43.6	-	183.1	-
	Gatehouses	200	1.0	1.7	1.7	1.8	0.6	1.0	-	3.8	-
	Office and spine office	2,863	14.6	24.3	24.6	25.2	7.9	14.3	-	53.8	-
n n	Warehouse	2,665	0.7	4.4	1.2	12.8	1.6	1.3	-	5.6	-
Warehouse Expansion	Office	307	1.6	2.6	2.6	2.7	0.8	1.5	-	5.8	-
arel xpai	Car park	1,336	-	-	-	-	-	-	3.3	3.0	13.4
ЗШ	Hardstand	1,986	-	-	-	9.5	1.2	1.0	-	4.2	-
Total		184,751	37.6	163.1	65.7	849.0	111.7	102.2	26.70	445.9	106.8

The areas shown in Table 5 are based on the floor areas shown on the drawings in 21144\_OEE\_Precinct\_3\_DA\_Drawings\_220513.pdf and 21144\_DA301\_A\_Site Plan.pdf.

## 5.4 Waste Avoidance

The Fairfield DCP states that:



As a community obligation and responsibility to sustainable living, the aim is always to reduce or avoid waste generation wherever possible. The focus of any waste collection must make provision to dispose of (general garbage), recycle (paper, plastics, metals) and re-use (green waste for compost) waste.<sup>11</sup>

In accordance with the Fairfield DCP and better practice waste management, the Building Contractor, Building Designer and/or equivalent roles will:

- Develop a purchasing policy based on the approximate volumes of materials to be used so that the correct quantities are purchased.
- Arrange for delivery of materials on an 'as needed' basis to avoid material degradation through weathering and moisture damage.
- Communicate strategies to handle and store waste to minimise environmental, health and amenity impacts.
- Select materials with a low environmental impact over the lifecycle of the building.
- Choose timber from certified plantations and avoid unsustainable timber imports including western red cedar, oregon, meranti, luan or merbau.
- Use leased equipment rather than purchase and disposal.
- Minimise site disturbance and unnecessary excavation.
- Incorporate existing trees and shrubs into the landscape plan.
- Grouping wet areas together to minimise the amount of pipe work required.
- Design the Development to require standard material sizes or make arrangements with manufacturing groups for the supply of non-standard material sizes.
- Design works for de-construction.
- Reduce packaging waste by:
  - Returning packaging to suppliers where practicable to reduce waste further along the supply chain
  - Purchasing in bulk
  - Requesting cardboard or metal drums rather than plastics
  - Requesting metal straps rather than shrink wrap, and
  - Using returnable packaging such as pallets and reels.
- Use prefabricated materials.
- Select materials for Project works with low embodied energy properties or materials that have been salvaged or recycled for the construction of the Development including concrete that utilises slag and fly ash content, structural and reinforced steel that uses recycled steel content or bulk insulation products that contain recycled content, such as recycled glass in glass-wool.
- Preferentially use paints, floor coverings and adhesives with low VOC (volatile organic compound) content.
- Reduce the use of polyvinyl chloride products.



<sup>&</sup>lt;sup>11</sup> Appendix E – Waste Not Policy. Section 5, page 4.

- Implement measures to prevent the occurrence of windblown litter, dust and stormwater pollution.
- Ensure subcontractors are informed of and implement site waste minimisation and management procedures.

## 5.5 Reuse, Recycling and Disposal

Effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, will be conducted. Only wastes that cannot be cost effectively reused or recycled are to be sent to landfill or appropriate disposal facilities.

Refer to Table 3 for an outline of the proposed reuse, recycling and disposal methods for potential site preparation and construction waste streams generated by the Development.

In accordance with the Fairfield DCP and best practice waste management, the following specific procedures will be implemented:

- Ensure the site's project management of the site includes minimising waste generation, requiring the appropriate storage and timely collection of waste materials, and maximising re-use or recycling of materials.
- Store wastes on site appropriately to prevent cross-contamination and guarantee the highest possible re-use value.
- Consider the potential of any new materials to be re-used and recycled at the end of the Development's life.
- Determine opportunities for the use of prefabricated components and recycled materials.
- Strip topsoil from areas designated for excavation and store it on site for reuse.
- Reuse excavation material will be on-site where possible.
- Re-use formwork where appropriate.
- Retain roofing material cut-offs for re-use or recycling.
- Retain used crates for storage purposes unless damaged.
- Recycle cardboard, glass and metal wastes.
- Recycle or dispose of solid waste timber, brick, concrete, asphalt and rock, where such waste cannot be re-used on site, to an appropriately licenced construction and demolition waste recycling facility or an appropriately licenced landfill.
- Dispose of all asbestos and/or hazardous wastes in accordance with SafeWork NSW and NSW EPA requirements.
- Deliver batteries and florescent lights to drop off-site recycling facility.
- Return excess materials and packaging to the supplier or manufacturer.
- Dispose of all garbage via a council approved system.

## 5.6 Waste Storage and Servicing

### 5.6.1 Waste Segregation and Storage

As outlined in the Fairfield DCP,<sup>12</sup> waste materials produced from site preparation and construction activities are to be separated at the source and stored separately on-site. It is anticipated that the Development will provide enough space on-site for separate storage, for example, separate skip bins or appropriately managed stockpiles, of the following waste types:

- Bricks, concrete and scrap metal
- Metal and steel, in a condition suitable for recycling at metal recycling facilities
- Timber
- Glass
- Hardstand rubble
- Uncontaminated excavation spoil, if present
- Contaminated excavation spoil, if present
- Hazardous waste, if present
- Paper and cardboard
- General co-mingled recycling waste, and
- Non-recyclable general waste.

If there is insufficient space on-site for full segregation of waste types, the Site Manager, or equivalent role, will consult with the waste and recycling collection contractor to confirm which waste types may be co-mingled prior to removal from the site.

### 5.6.2 Waste Storage Areas

Waste storage areas will be accessible and allow enough space for storage and servicing requirements. The storage areas will also be flexible in order to cater for change of use throughout the Development. Where space is restricted, dedicated stockpile areas are to be delineated on the site, with regular transfers to dedicated skip bins for sorting.

All waste placed in skips or bins for disposal or recycling will be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site. Waste containers and storage areas are to be kept clean and in a good state of repair.

As specified in the Fairfield DCP:

- there will be separate containers or storage areas for the recycling of materials
- waste containers will have minimum dimensions of 2.4 x 2.4 x 0.9 metres
- waste containers will be located on site and away from Council footpaths and land areas designated for waste storage.



<sup>&</sup>lt;sup>12</sup> Appendix E – Waste Not Policy, Section 2, page 2

Waste storage areas will also:

- Allow unimpeded access by site personnel and waste disposal contractors
- Consider environmental factors which could potentially cause an impact to the waste storage, such as slope, drainage and the location of watercourses and native vegetation
- Allow enough space for the storage of garden waste and other waste materials on-site
- Employ adequate environmental management controls to prevent off-site migration of waste materials and contamination from the waste. For example, consideration of slope, drainage, proximity relative to waterways, stormwater outlets and vegetation
- Consider visual amenity, safety, accessibility and convenience in their selection, and
- Not present hazards to human health or the environment.

### 5.6.3 Waste Servicing and Record Keeping

The Site Manager or equivalent role will:

- Arrange for suitable waste collection contractors to remove any construction waste from site
- Ensure waste bins are not filled beyond recommended filling levels
- Ensure that all bins and loads of waste materials leaving site are covered
- Maintain waste disposal documentation detailing, at a minimum:
- Descriptions and estimated amounts of all waste materials removed from site
- Details of the waste and recycling collection contractors and facilities receiving the waste and recyclables
- Records of waste and recycling collection vehicle movements, for example, date and time of loads removed, licence plate of collection vehicles, tip dockets from receiving facility, and
- Waste classification documentation for materials disposed to off-site recycling or landfill facilities.
- Ensure lawful waste disposal records are readily accessible for inspection by regulatory authorities such as Council, SafeWork NSW or NSW EPA, and
- Remove waste during hours approved by Council.

If skips and bins are reaching capacity, removal and replacement will be organised as soon as possible. All site generated building waste collected in the skips and bins will leave the site and be deposited in the approved site lawfully able to accept them.

## 5.7 Site Inductions

All staff, including sub-contractors and labourers, employed during the site preparation and construction phases of the Development will undergo induction training regarding waste management for the Site.

Induction training will cover, as a minimum, an outline of the WMP including:

- Legal obligations and targets
- Emergency response procedures on-site

- Waste priorities and opportunities for reduction, reuse and recycling
- Waste storage locations and separation of waste
- Procedures for suspected contaminated and hazardous wastes
- Waste related signage
- The implications of poor waste management practices, and
- Responsibilities and reporting, including identification of personnel responsible for waste management and individual responsibilities.

## 5.8 Signage

Standard signage will be posted in all waste storage and collection areas. All waste containers will be labelled correctly and clearly to identify stored materials.

Signs approved by the NSW EPA for labelling of waste materials are available online<sup>13</sup> and will be used where applicable. A selection of signs prepared by NSW EPA is provided in Figure 5.



Figure 5 Examples of NSW EPA labels for waste skips and bins

## 5.9 Monitoring and Reporting

The following monitoring practices are to be undertaken to improve site preparation and construction waste management and to obtain accurate waste generation figures:

- Conduct waste audits of current projects where feasible.
- Note waste generated and disposal methods.
- Look at past waste disposal receipts.
- Record this information to track waste avoidance, reuse and recycling performance and to help in waste estimations for future waste management plans.

<sup>&</sup>lt;sup>13</sup> NSW EPA approved waste materials signage <u>https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs</u>



As specified in the Fairfield DCP, records of waste quantities recycled, reused or contractor removed are to be maintained. This can include dockets or receipts verifying recycling and disposal in accordance with this WMP. This evidence will also be presented to regulatory bodies when required.

Daily visual inspections of waste storage areas will be undertaken by site personnel and inspection checklists and logs recorded for reporting to the Site Manager on a weekly basis or as required. These inspections will be used to identify and rectify any resource and waste management issues.

Waste audits are to be carried out by the Building Contractor to gauge the effectiveness and efficiency of waste segregation procedures and recycling and reuse initiatives. Where audits show that the above procedures are not carried out effectively, additional staff training will be undertaken and signage re-examined.

## 5.10 Roles and Responsibilities

All personnel have a responsibility for their own environmental performance and compliance with all legislation. It will be the responsibility of the Building Contractor to implement the WMP, and an employee and subcontractor responsibility to ensure that they always comply with the WMP.

Where possible, an environmental management representative will be appointed for the Development. Suggested roles and responsibilities are provided in Table 6.

Responsible Person	General Tasks			
Construction Site	Ensuring plant and equipment are well maintained.			
Manager	Ordering only the required amount of materials.			
	Keeping materials segregated to maximise reuse and recycling.			
	Ultimately responsible for routinely checking waste sorting and storage areas for cleanliness, hygiene and safety issues, contaminated waste materials, and also ensuring that all monitoring and audit results are well documented and carried out as specified in the WMP.			
Construction Environmental Manager	Approaching and establishing the local commercial reuse of materials where reuse on-site is not practical.			
or equivalent	Establishing separate skips and recycling bins for effective waste segregation and recycling purposes.			
	Ensuring staff and contractors are aware of site requirements.			
	Provision of training of the requirements of the WMP and specific waste management strategies adopted for the Development.			
	Contaminated waste management and approval of off-site waste transport, disposal locations and checking licensing requirements.			
	Approval of off-site waste disposal locations and checking licensing requirements.			
	Assessment of suspicious potentially contaminated materials, hazardous materials and liquid wastes.			
	Monitoring, inspection and reporting requirements.			

### Table 6 Suggested roles and responsibilities for site preparation and construction waste management

Daily visual inspections of waste storage areas may be delegated to other on-site staff. All subcontractors will be responsible for ensuring that their work complies with the WMP through the project induction and contract engagement process.

# 6 Operational Waste Management

## 6.1 Targets for Resource Recovery

Targets for new development are expected to contribute to state-specific targets. The NSW Waste and Sustainable Materials Strategy 2041 (DPIE, 2021) sets a target of 80% average recovery rate from all waste streams by 2030. Analysis by DPIE (2021) indicates that the commercial and industrial waste recovery rate in 2019 was 53%.

It is anticipated that the waste minimisation measures in the following sections will assist the Development to meet the state's targets. Waste reporting and audits can be used to determine the actual percentage of waste that are being, or have been, recycled during operation.

## 6.2 Waste Streams and Classifications

The operation of the Development is anticipated to generate the following broad waste streams:

- Domestic wastes generated by employees, including food wastes
- Bulk packaging wastes, including polystyrene, plastic wrapping and cardboard boxes
- Office waste
- Garden organic waste from landscaped areas
- Bulky waste items such as furniture and e-waste, and
- Stores, plant and general maintenance wastes.

Potential ongoing waste types, their associated waste classifications, and management methods are provided in Table 7. For further information on how to determine a waste's classification, refer to the NSW EPA (2014) Waste Classification Guidelines. Suggestions for recycling drop off locations and contacts can be found on https://businessrecycling.com.au/ for each waste type.

Waste Types	NSW EPA Classification	Proposed Management Method					
General Operations							
Clean office paper	General solid (non-putrescible) waste	Paper recycling at off-site licensed facility					
Cardboard including bulky cardboard boxes	General solid (non-putrescible) waste	Cardboard recycling at off-site licensed facility					
Recyclable beverage containers, glass and plastic bottles, aluminium cans, steel cans	General solid (non-putrescible) waste	NSW container deposit scheme 'Return and Earn', container recycling at off-site licensed facility					
Food waste	General solid (putrescible) waste	Dispose to landfill with general garbage					
Batteries	Hazardous waste	Off-site recycling, alternatively contact the Australian Battery Recycling Initiative for more information					

### Table 7 Potential waste types, classifications and management methods for operational waste



Waste Types	NSW EPA Classification	Proposed Management Method		
Mobile Phones Hazardous waste		Off-site recycling; can be taken to the Mobile Muster program. Contact Mobile Muster for more information		
Bulky polystyrene	General solid (non-putrescible) waste	Off-site recycling or disposal at landfill		
Furniture	General solid (non-putrescible) waste	Off-site reuse or disposal to landfill		
E-waste	Hazardous waste	Off-site recycling		
General garbage, including non-recyclable plastics	General solid (putrescible and non-putrescible) waste	Disposal at landfill		
Maintenance				
Glass, other than containers	General solid (non-putrescible) waste	Off-site recycling		
ight bulbs and Iuorescent tubes		Off-site recycling or disposal, contact FluoroCycle <sup>14</sup> or Lamp Recyclers <sup>15</sup> for more information		
Cleaning chemicals, solvents, area wash downs, empty oil or paint drums, chemical containers	Hazardous waste if containers used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid (non-putrescible) waste if containers cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility.		
Garden organics - lawn mowing, tree branches, hedge cuttings, leaves	General solid (non-putrescible) waste	Reuse on-site or contractor removal for recycling at licenced facility		

# 6.3 Estimated Quantities of Operational Waste

In the absence of waste generation rates in the Fairfield DCP, SLR has adopted the 'Offices' and 'Warehouse' waste generation rates from the Penrith Council's Industrial, Commercial and Mixed-Use Waste Management Guidelines for estimating the type and quantities of waste generated from the operational activities of the Development. The operational waste generation rates used are shown below in Table 8.

### Table 8Operational waste generation rates

Type of Premises	General Waste Generation (L/100 m²/day)	Recycling Generation (L/100 m²/day)
Warehouse	10	10
Offices	10	10

Using the waste generation rates in Table 8 above, the approximate weekly waste quantities for the Development have been calculated. The operational waste quantities were additionally calculated based on the assumptions below:

• The floor areas shown in the drawings in 21144\_DA301\_A\_Site Plan.pdf and 21144\_OEE\_Precinct\_3\_DA\_Drawings\_220513.pdf and



<sup>&</sup>lt;sup>14</sup> <u>https://www.fluorocycle.org.au/</u>

<sup>&</sup>lt;sup>15</sup> <u>https://www.lamprecyclers.com.au/</u>

• A week comprising seven days of operation.

The estimated quantities of operational waste generated by the Development are shown in Table 9.

Building	Project area	Area (m²)	(L/day)		(L/week)	
			General Waste	Recycling	General Waste	Recycling
Precinct 3	Warehouse	78,842	7,884	7,884	55,189	55,189
warehouse	Office	1,975	198	198	1,383	1,383
	Office Spine Building L1	507	51	51	355	355
	Office Auto Control Room L1	381	38	38	267	267
	Gatehouses (Four)	200	20	20	140	140
	Total	80,817	8,191	8,191	57,334	57,334
Warehouse	Warehouse	2,665	267	267	1,866	1,866
expansion Stage 1	Office	307	31	31	215	215
	Total	2,972	297	297	2,080	2,080

Table 9Estimated quantities of operational general waste and recycling

## 6.4 Waste Storage Area

### 6.4.1 Garbage and Recycling Bins

The waste storage area for the Development must be large enough to adequately store all quantities of operational waste and recycling between collections. Given the nature of the development and its size and scope, a front lift waste collection service is the most likely to be used by a contractor.

The most common front lift bin capacity is 3 m<sup>3</sup>, and these have been assumed when calculating bin numbers for the warehouse expansion. However, 4.5 m<sup>3</sup> bins are also commonly used and these have been assumed when calculating bin numbers and storage space for the Precinct 3 warehouse to provide additional capacity.

All waste storage area calculations have considered typical bin dimensions shown in Table 10.

Table 10Dimensions and approximate footprint of bins

Bin Capacity	Height (mm)	Depth (mm)	Width (mm)	Footprint (m <sup>2</sup> )
3 m <sup>3</sup>	1,540	1,520	2,060	3.31
4.5 m <sup>3</sup>	1,850	1,860	2,050	3.81

To allow for ready movement of bins into and out of the bin storage area, at least 200% of the total minimum bin storage area has been allowed for. This can also act as a contingency in the event of spikes in waste generation.

The recommended storage areas do not include the storage of bulky waste. For the additional storage space for bulky waste, refer to Section 6.4.2.



The estimated number of bins required for weekly storage of operational waste and recycling generated by the Development are shown in Table 11 and are based on:

- The estimated quantities of operational waste and recycling shown in Table 9
- Bin dimensions shown in Table 10.

### Table 11Recommended number of bins and storage area

Building	Bin Capacity	Collection Frequency per Week		Number of Bins Required		Total Number	Recommended Storage Area
		Garbage	Recycling	Garbage	Recycling	of Bins	(m²)
Precinct 3 warehouse	4.5 m <sup>3</sup>	7	7	2	2	4	30.5
Warehouse expansion Stage 1	3 m <sup>3</sup>	1	1	1	1	2	12.5

### 6.4.2 Bulky Waste

The bulky waste stream includes broken pallets, broken furniture, e-waste and other materials that cannot be disposed of in the general or recyclable waste stream. The Fairfield DCP provides no advice on storage space for bulky waste at industrial developments. In the absence of this advice, SLR recommends 8 m<sup>2</sup> be allocated for bulky waste storage at the warehouse expansion. At the Precinct 3 warehouse, SLR recommends a space large enough for a 30 m<sup>3</sup> hook bin be allowed. This bin can be brought to site by a waste contractor, occasionally as required, to collect bulky waste.

Therefore, in addition to the recommended waste storage area noted in Table 11, the total waste storage area recommended for the Development is identified in Table 12 below.

### Table 12Total recommended storage area for operations

Building	Recommended Storage Area (m <sup>2</sup> )					
	Waste and Recycling Bins	Bulky waste	Total Storage Area			
Precinct 3 warehouse	30.5	18	48.5			
		(6 x 3 m)				
Warehouse expansion	12.5 8 20.5					

This additional space can also act as a contingency in the event of spikes in waste generation and allow for additional bins. Depending on the Development's operations, this may include additional bins for the separate storage of items such as hard and soft plastics, timber, glass and metals and aluminium.

SLR recommends that waste audits be undertaken approximately one month into the operational phase of the Development to quantify actual waste generation rates. The assessment of generated waste quantities will be influenced by management, employee and tenant attitudes to recycling and disposal, and the adequacy of signage and education provided for occupants.

The drawings do not show any identified waste storage areas at either site. Waste storage areas will be the minimum size indicated in Table 12.

### 6.4.3 Waste Storage Area Location

The design for the waste storage areas of the Development to take into consideration better practice waste management and recommendations. The waste storage areas are located so that:



- They are located away from primary street frontages
- They are near any on-site loading bays
- They are convenient, safe, functional and directly accessible to users in each tenancy and servicing collection staff, but inaccessible to the public
- They avoid pedestrian or vehicular traffic hazards likely to be caused by waste collection and storage.

The warehouse expansion will use the waste storage and collection system at the existing warehouse. The waste storage area in Precinct 3 is shown in Figure 6 below.

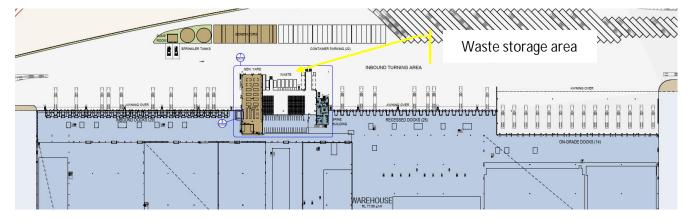


Figure 6 Waste storage in Precinct 3

### 6.4.4 Waste Storage Area Features

In accordance with better practice waste management, the Development's waste storage areas will have the following features:

- Blend in with the design of the wider development and the surrounding streetscape
- Be well lit and well-ventilated
- Adequate vermin prevention measures
- Reduce potential noise and odour impacts
- Enhance safety for the public
- Be connected to a water outlet for washing purposes
- Equipped with a hot and cold tap-based water supply centralised mixing valve
- Floor graded to a central drainage point which is connected to the sewer
- Have water discharge from washing flow to a sewer approved by the relevant authority
- Waterproofed and sealed non-slip floor constructed in accordance with the BCA
- Waste equipment is protected from theft and vandalism
- Be fully enclosed, walled and not permit through access to other on-site waste infrastructure
- Adequate lighting and natural or mechanical ventilation in accordance with the BCA
- Provide administrative management, including signage to ensure appropriate use

- Be screened from public areas, preferably with landscape buffer planting, to reduce the impacts of noise, odour and visual amenity, and
- Flexible in design to allow for future changes in operation, tenancies and uses.

## 6.5 Waste Servicing

Waste collections will be undertaken through a private contractor. The following general waste servicing access requirements will be implemented:

- Waste will be removed regularly.
- Arrangements will be in place so that the waste and recycling storage rooms are not accessible to the general public.

In accordance with good and safe practice, the following is required for the access provisions for of waste collection vehicles:

- Collection vehicles will enter and exit the collection area in a forward direction
- Drawings will show the site's entry point, vehicle's route of travel and manoeuvring
- Unobstructed access, adequate driveways and ramps of sufficient strength to support waste collection
- Access for the collection vehicles must be separate from the entry and exit driveway of any car parking areas to and from public areas.

## 6.6 Waste Avoidance, Reuse and Recycling Measures

### 6.6.1 Waste Avoidance

Waste avoidance measures include:

- Participating in take-back services to suppliers to reduce waste further along the supply chain
- Avoiding printing where possible
- Review of packaging design to reduce waste but maintain 'fit for purpose'
- Providing ceramic cups, mugs, crockery and cutlery rather than disposable items
- Purchasing consumables in bulk to avoid unnecessary packaging
- Presenting all waste reduction initiatives to staff as part of their induction program, and
- Investigating leased office equipment and machinery rather than purchase and disposal.

### 6.6.2 Re-use

Possible re-use opportunities include establishing systems with in-house and supply chain stakeholders to transport products in re-useable packaging where possible.

### 6.6.3 Recycling

Recycling opportunities include:

- Collecting and recycling e-waste
- Flatten or bale cardboard to reduce number of bins required
- Paper recycling trays provided in office areas for scrap paper collection and recycling
- Collecting printer toners and ink cartridges in allocated bins for appropriate contractor recycling, and
- Development of 'buy recycled' purchasing policy.

## 6.7 Communication Strategies

Waste management initiatives and management measures will be clearly communicated to building managers, owners, employees, customers and cleaners. Benefits of providing this communication include:

- improved satisfaction with services
- increased ability and willingness to participate in recycling
- improved amenity and safety
- improved knowledge and awareness through standardisation of services
- increased awareness or achievement of environmental goals and targets
- reduced contamination of recyclables stream
- increased recovery of recyclables and organics material, if implemented, and
- greater contribution to targets for waste reduction and resource recovery, the environment and heritage conservation.

To realise the above benefits, the following communication strategies will be considered:

- Use consistent signage and colour coding throughout the Development
- Ensure all staff are trained in correct waste separation and management procedures
- Provide directional signage to show location of and routes to waste storage area
- General waste and co-mingled recycling bins will be clearly labelled and colour-coded to ensure no cross contamination, where applicable
- Employees and cleaners will adhere to the WMP for compliance, in consultation with management, and
- Repair signs and labels promptly to avoid breakdown of communications.

## 6.8 Signage

Waste storage and collection areas will be provided with appropriate signage. These signs will clearly identify waste management procedures and provisions to contractors, tenants and visitors will be distributed around the Development.

Signs which clearly identify waste management procedures and provisions to staff and visitors will be distributed around the Development. Key signage considerations are:



- Clear and correct labelling on all waste and recycling bins, indicating the correct type or types of waste that can be placed into a given bin, as shown in Figure 7
- Signposts and directions to location of waste storage areas
- Clear signage in all waste storage areas to instruct users how to correctly separate waste and recycling
- Maintaining a consistent style colour scheme and system for signs throughout the Development, and
- Emergency contact information for reporting issues associated with waste or recycling management.

Colour-coded and labelled bin lids are necessary for identifying bins. All signage will conform to the relevant Australian Standard and use labels approved by the NSW EPA<sup>16</sup>. The design and use of safety signs for waste rooms and enclosures will comply with Australian Standard AS 1319 Safety Signs for the Occupational Environment and clearly describes the types of materials designated for each bin.



Figure 7 Example of bin labels for operational waste

## 6.9 Monitoring and Reporting

Monitoring is recommended to ensure waste and recycling management arrangements and provisions for the Development are functional, practical and are maintained to the standard outlined in this plan, at a minimum.

Visual assessments of bins and bin storage areas will be conducted by the building manager, at minimum:

- Weekly, in the first two months of operation to ensure the waste management system is sufficient for the operation, and
- Every six months, to ensure waste is being managed to the standards outlined in this document.

In addition, audits are to be conducted on a half-yearly basis to ensure WMP provisions are maintained.

Quantities of waste and recycling associated with disposal of waste and recycling, including dockets, receipts and other physical records will be recorded by the Building Manager. This is to allow reviews of the waste management arrangements and provisions at the site over time. Records of waste disposal will also be available to regulatory authorities such as the NSW Environmental Protection Authority and SafeWork NSW, upon request.

<sup>&</sup>lt;sup>16</sup> NSW EPA waste signage and label designs <u>http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm</u>



Any deficiencies identified in the waste management system, including, but not limited to, unexpected waste quantities, is to be rectified by the Building Manager as soon as it is practical. Where audits show that recycling is not carried out effectively, management will carry out additional staff training, signage re-examination and reviews of the waste management system where the audit or other reviewing body has deemed necessary. If this waste management plan no longer sufficiently meets the needs of the Development, review and updates to maintain suitability must be undertaken.

## 6.10 Roles and Responsibilities

It is the responsibility of the Building Manager, or equivalent role, to implement this WMP and a responsibility of all warehouse tenants and staff to follow the waste management procedures set out by the WMP. SLR recommends that all subcontractors enlisted by the Client are to have roles and responsibilities identified and the Development's waste management system clearly explained. A summary of recommended roles and responsibilities are provided in Table 13.

Responsible Person	General Tasks		
Management	Ensure the WMP is implemented throughout the life of the operation.		
	Update the WMP on a regular basis (e.g. annually) to ensure the Plan remains applicable.		
	Undertake liaison and management of contracted waste collections.		
	Organise internal waste audits on a regular basis.		
	Manage any complaints and non-compliances reported through waste audits etc.		
	Perform inspections of all waste storage areas and waste management equipment on a regular basis.		
	Organise cleaning and maintenance requirements for waste management equipment.		
	Monitor bins to ensure no overfilling occurs.		
	Ensure effective signage, communication and education is provided to alert visitors, employees and cleaners about the provisions of this WMP and waste management equipment use requirements.		
	Monitor and maintain signage to ensure it remains clean, clear and applicable.		
	Ensure waste and recycling storage rooms are kept tidy.		
	Ensure that regular cleaning and daily transfer of bins is being undertaken by the cleaners		
	Ultimately responsible for the management of all waste management equipment, cleaning requirements, waste transfer and collection arrangements.		
Cleaners and Staff	Removal of general waste, recyclables, cardboard waste and hazardous waste from floor areas for transfer to centralised waste and recycling collection rooms daily or as required.		
	Cleaning of all bins and waste and recycling rooms on a weekly basis or as required.		
	Compliance with the provisions of this WMP.		
Gardening Contractor, as applicable	Removal of all garden organics waste generated during gardening maintenance activities for recycling at an off-site location or reuse as organic mulch on landscaped areas.		

### Table 13 Operational waste management responsibility allocation

## ASIA PACIFIC OFFICES

#### BRISBANE

Level 2, 15 Astor Terrace Spring Hill QLD 4000 Australia T: +61 7 3858 4800 F: +61 7 3858 4801

#### MACKAY

21 River Street Mackay QLD 4740 Australia T: +61 7 3181 3300

### SYDNEY

Tenancy 202 Submarine School Sub Base Platypus 120 High Street North Sydney NSW 2060 Australia T: +61 2 9427 8100 F: +61 2 9427 8200

#### AUCKLAND

68 Beach Road Auckland 1010 New Zealand T: 0800 757 695

### CANBERRA

GPO 410 Canberra ACT 2600 Australia T: +61 2 6287 0800 F: +61 2 9427 8200

#### MELBOURNE

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#### TOWNSVILLE

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#### NELSON

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#### NEWCASTLE

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