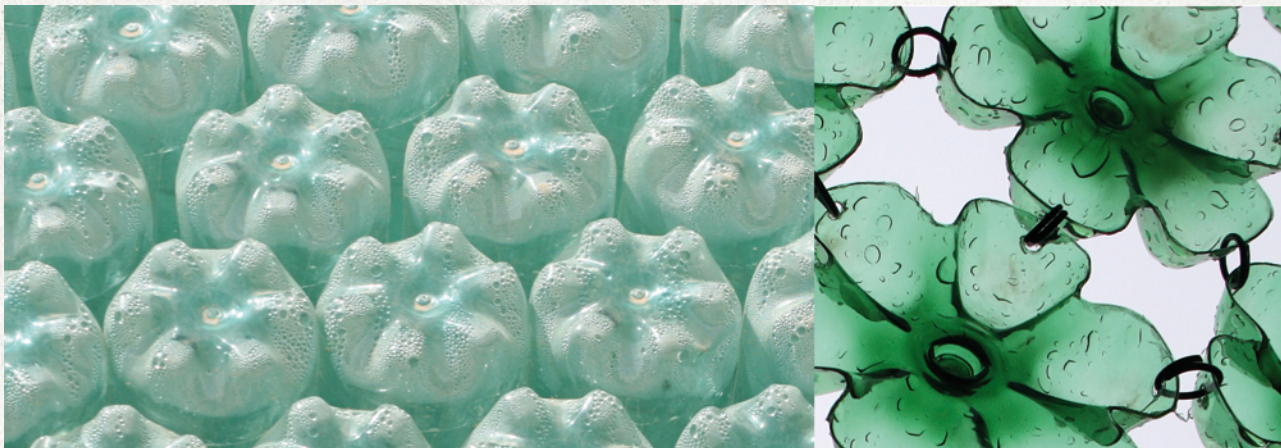




**WASTELESS**  
CONSULTING



# Waste Report

## Eastern Creek Shopping Centre

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## **Site Provisions for Waste Management Systems**

### **Development Overview**

The development consists of a neighborhood shopping centre that supports a major supermarket and 38 mixed-use retail shops. This report does not cover the provision of waste services for the major supermarket tenant. The supermarket will not utilise the base building waste room for the disposal of waste and recycling products. The supermarket will control their operational waste management services and provided the necessary infrastructure. The proposed supermarket tenant has provided operational information and a plan showing that their proposed waste management activities on the site will support those outlined within this waste management plan.

### **Estimated Waste Generation and Recycling**

<b>Waste Source</b>	<b>Base Area</b>	<b>General Waste</b>	<b>Mixed Recycling</b>	<b>Paper/Cardboard</b>
<b>Retail</b>	<b>5,544 sqm</b>			
<b>Total (m3/wk)</b>		<b>59</b>	<b>8.0</b>	<b>12.0</b>

Waste estimates have been based on tenancy mix of 70% Shops and 30% Food and Beverage. The estimates for waste generate are based from experience and from waste generation levels from other sites.

### **Waste Collection Services**

The amount of waste generated on site will require a private waste contractor to be engaged to collect the waste from site. There will be a requirement for a waste contract to be negotiated with a suitable provider. Centre Management will be responsible for contracting the waste services. The provision of this separate waste contract will not negate or reduce the liability for each tenancy's ratable municipal charge.

### **Site Provision for Waste Management**

- Two Ground Floor Loading Dock Area for the collection of bins
- Adequately sized Ground Floor Waste Room (Retail tenancies) for bin storage
- Bin washing facilities

The waste streams that will be collected from site are as follows:

1. General Waste
2. Paper and Cardboard
3. Mixed recycling (plastics, glass, steel and aluminum)
4. Oil (Grease Interceptor Trap to service the food retailers)
5. Re-usable Storage area (milk/bread crates and polystyrene/waxed boxes)



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The site will not support a separate organic/composting recycling service as it is considered impractical due to the limited private contractor collection services. The management of organic recycling would be best managed via the process of diverting general waste to an alternative waste technology (AWT) collection point to recover a percentage of the organic material.

The following table summaries bin quantity/ capacity, collection frequency and area requirement based on table 1. ( per waste room location)

Waste Stream	Bin Numbers	Bin Type	Collections per week
General Waste	4	1100 Lt	7
Mixed Recycling	4	660 Lt	3
Paper Cardboard		Baler (see attached specification)	2

Notes:

This table is provided for the purpose of guidance as waste generated and collection services can be impacted on my numerous factors not limited to the list below.

- Bins will be provided under the waste contract (may vary depending on tenancy mix)
- Levels of occupancy of the tenancy
- Retailers' participation in a recycling program

### Waste Services detailed on drawings

The plans show that there has been an allowance for a waste storage facility on site. The frequency of waste collection services undertaken by the private contactor will vary. Management will make any ongoing operational changes in response to the circumstances once the centre is operational.

### Bin Types

The bin types are plastic bins to manage the 1100 Lt general waste and 660 Lt mixed recycling material from the site.

Capacity (Litres)	Height (mm)	Width (Front mm)	Depth (Side mm)	Empty Weight (Kg)
1100	1470	1240	1070	65
660	1180	1260	770	45



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### Bin Lid Colour

The bins would meet Australian Standard for lid colour and be clearly labeled for the specific waste stream.

Waste Stream	General Waste	Mixed Recycling	Paper/ Cardbaord
Lid	Red	Yellow	Blue
Body	Green	Green	Green

Note: Private waste contractors may use different colour coding system and labeling system. The bin colour coding and labeling will need to be reflected as a requirement under the waste contract.

### Users' Interface with waste storage and collection services

#### Access to waste services

Tenants will be required to dispose of their waste into the bins located in the bin storage room. The tenant will transfer the waste to this location via trolley with adequate internal corridor widths, ramps and level surfaces to the bin storage room.

The bin room facility will have sufficient circulation space to allow for bins to be moved and rotated within the room.

#### Collection of Waste from Site

- Waste bins are to be collected directly from the bin storage room by the waste contractor.
- **Waste collection will be via a rear truck lift, which would be an approximate over length of 9.4m and width of 2.6m and requiring clearance of 3.8m for operational height.**
- The manual handling risks related to the movement of bins has been minimised as collection of bins is directly from bin storage room which is less than 10m from the loading dock facilities.
- **Access to loading dock facilities must take in consideration Appendix C for turning circle provisions.**

### Provision of maintaining the local amenity and environment

#### Noise Factors

- Bins will have plastic lids and be on rubber wheels.
- Loading dock activities will be in accordance with all Approvals.
- All local laws will be adhered to.



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- Specified within the private waste provider's contract will be the requirement to meet all legislation and regulation relating to noise control to ensure that amenity within the surrounding area is maintained in accordance with the legislation and regulations.

#### Environmental Factors

- Centre Management will provide adequate bins to avoid dumping of waste.
- Monitor and manage access to the bin storage area including the provision of CCTV monitoring.
- Provide adequate bins to avoid waste bins being over filled and maintain waste bins in good repair to avoid leaks of liquid material.
- Provide for adequate frequency of the waste services.
- Maintaining cleaning procedures to pick up litter around the centre.
- No waste incineration devices will be permitted at the site.
- Recycling material will not be placed in plastic bags and all cardboard will be flattened for disposal.
- No hazardous waste will be stored on site.
- Install adequate bins internal and external to the centre to manage litter control.

#### Ventilation, Washing and Vermin Control

- **The bin storage areas shall be ventilated in accordance with the following provisions;**  
**Natural ventilation openings direct to the external air, not less than 5% of the floor area of the room.**  
**Mechanical exhaust ventilation system, exhausting at a rate of 5L/s/m<sup>2</sup> floor area, with a minimum rate of 100L/s min**
- The room will be enclosed structure with a tightly fitted and self closing door, which will be signed with "Danger" and "No Standing" will be clearly displayed on the face of the door.
- **The floor will be made of concrete of at least 75mm or an approved material graded and is impervious, level, smooth, slip-resistant and have adequate drainage, including a floor waste, as approved by Sydney Water Corporation.**
- **The walls will be constructed from an approved solid impervious material, finished with cement render internally to create a consistent even finish for the ease of cleaning.**
- **The ceilings will be finished with rigid smooth face material that is non-absorbent.**
- **Bin washing facility will include hot and cold water via a centralised mixing valve with a hose cock to maintain the cleanliness of the bins and the bin storage room.**



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- Management of the bin storage room will reflect regular routine washing down of the facilities.
- Pest Control measures will be put in place at the site.

### **Design and safety of the Waste Storage Areas**

- Waste bins will be stored in the waste storage rooms.
- Waste bins will be returned to this room after collection services.
- The material used in the construction of the rooms will be durable and fit for purpose to provide for the cleanliness of the rooms to be maintained and to limit the reduced aesthetic appeal of the room.
- There will be adequate lighting in the room and along the paths of travel to the room.

### **Stakeholder Engagement and Education**

- A sustainable waste contract will be entered into with a service provider.
- Centre Management will be responsible to ensure all retailers and cleaning staff are fully aware of the operational requirement for the site, this will be reflected in tenancy manuals and shopping centre rules.
- Centre Management will ensure that all retailers and cleaning staff receive adequate education on the operational requirements of the system.
- The site displays clear signage within the loading dock and along the paths of travel.
- Centre Management will maintain a cleaning routine that will limit slip and trip hazards from spillages within the loading dock or along the paths of travel.
- All collection of bins will occur from the loading dock and not placed in other location around the site.
- Centre Management will continue to support and provide services on site to encourage the diversion of waste from landfill.
- Centre Management will work and support the local Council and the community programs for waste avoidance and minimisation.
- Centre Management will maintain waste collection data and set a target for waste reduction generated from the operation of the centre to be diverted from landfill.
- Under the waste contract there will be requirement for data to be provided by waste type / number of bin lifts/ weight. This data will be benchmarked and used to establish a waste reduction target to the next twelve months. The ongoing monitoring of waste data will enable Centre Management to make operational and or direct education on the waste services to tenants/ cleaning staff/ customers.
- Centre Management will adapt and make changes as required to meet new legislation or reflect best practice in reducing waste generation or waste management at the site.



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## **Report Limitation**

The purpose of this report is to document a Waste Management Plan, as part of a Town Planning Development Application (DA).

The report is based on the following conditions

- Operational use of the development (excludes demolition/ construction stages)
- Drawings provided and supplied by the project architect.
- The figures requested in the report are estimates only. The amount of waste generated at the site will depend on such factors occupancy rates, level of diversion from landfill, tenancy mix. Management shall make adjustments based on actual volume of waste that will impact on bin numbers and frequency of collection.
- This report should not be used to calculate or forecast future operational costs for waste management at the site or to be solely relied on to document or highlight legislation or regulations that need to be adhered.



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