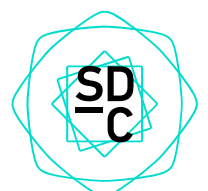


# SUSTAINABLE DEVELOPMENT \_CONSULTANTS

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Application No: MPS/2020/260  
Date: 21/08/2020

Waste Management Plan  
145 Glenlyon Road, Brunswick East



**Proposed Trade Supplies Development  
(Bunnings Warehouse)  
145 Glenlyon Road, Brunswick East**

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Waste Management Plan

July 2020

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S4106 WMP.V1

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Version	Date of Issue	Description	Author	Approved
V1	16-07-2020	For Council Approval	PW	DE



## 1. Introduction

This Waste Management Plan (WMP) has been prepared for the proposed trade supplies development (Bunnings Warehouse) at 145 Glenlyon Road, Brunswick East.

The purpose of this WMP is to determine the practical arrangements for how waste management and recycling will occur and to set in place measures to help the staff of this development reduce the generation of waste.

This document has been prepared by Sustainable Development Consultants with reference to the architectural drawings prepared by Stokes Architects.

### 1.1 Site & Development Description

The site at 145 Glenlyon Road, Brunswick East, is located approximately 5km north of the Melbourne CBD. It is situated near the corner of Lygon Street and Glenlyon Road, bounded by Pitt and Lygon Streets, Glenlyon Road and Loyola Avenue, with vehicle access from Glenlyon Road. The site also has a separate, one way truck and delivery access from Glenlyon Road which exits onto Pitt Street. The site is located within close proximity to both the Lygon Street and Sydney Road precincts.

The site is currently occupied by a combination of commercial and industrial buildings which are to be demolished prior to construction of the proposed development.

The proposed building includes two levels of trade supply areas, a café, an outdoor plant nursery, and two basement levels of car parking.

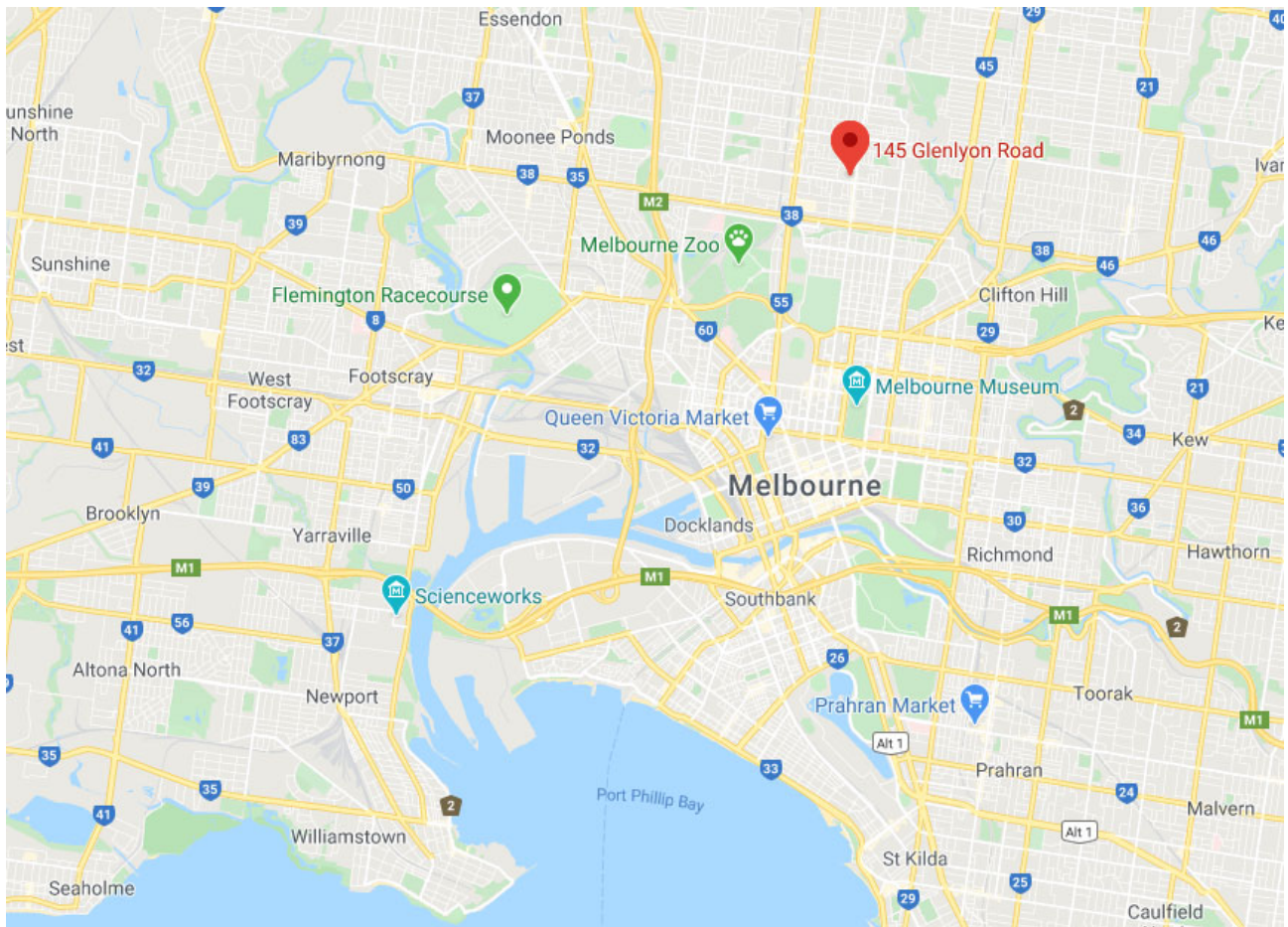


Figure 1: Location of the site in relation to the Melbourne CBD (Source: Google Maps)

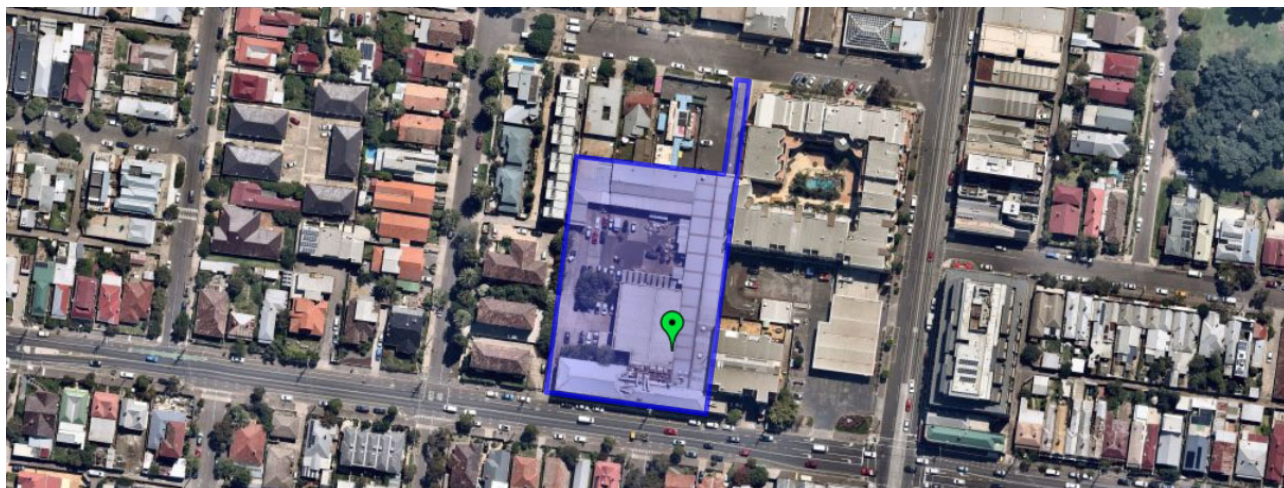


Figure 2: Aerial view of the site at 145 Glenlyon Road, Brunswick East (Source: Nearmap)

The development summary is as follows:

Site and Building Information	
Total Site Area	5,480m <sup>2</sup>
Development Summary	Trade supplies area - 8,218m <sup>2</sup>
	Office/amenities area - 227m <sup>2</sup>
	Cafe area - 50m <sup>2</sup>
	Total building area (excluding carpark and loading areas) of 8,495m <sup>2</sup>
	250 Car parking spaces

## 1.2 Types of Waste Generated

The following types of waste are most commonly generated within a development such as that proposed:

- General landfill garbage;
- Commingled recyclables;
- Garden waste and organics
- Confidential paper
- Cardboard
- Plastic
- Timber waste

## 2. Waste Generation Rates

Listed in Table 1 (below) are the waste generation estimates for this development<sup>1</sup>.

In addition to these waste generation estimates being based on the Sustainability Victoria Best Practice Guide, these waste generation estimates have also been confirmed to be reflective of a similar Bunnings Warehouse within Melbourne.

<sup>1</sup> These rates are based on the Sustainability Victoria Best Practice Guide and the waste generation rates included in Appendix 2: Commercial waste generation rates

Table 1: Weekly waste generation rates.

Space Type	Garbage	Commingled Recyclables	Clean Paper & Cardboard	Plastic
Trade Supplies (Shops – non-food)	50L/100m <sup>2</sup> /day	-	25L/100m <sup>2</sup> /day	25L/100m <sup>2</sup> /day
Takeaway/Café (pre-packaged food)	150L/100m <sup>2</sup> /day	150L/100m <sup>2</sup> /day	-	-
Office & Staff Amenities	10L/100m <sup>2</sup> /day	5L/100m <sup>2</sup> /day	5L/100m <sup>2</sup> /day	-

To achieve more sustainable waste management outcomes, the recyclables have been divided into three waste streams, being Commingled Recyclables (including glass and cans), Plastic and Clean Paper & Cardboard. It has been assumed where there are two recyclable waste streams, that there will be a 50/50 split between these recyclables, where appropriate.

Listed in Table 2 (below) are the total estimated volumes of garbage, commingled recyclables, clean paper & cardboard and plastic to be generated in the proposed development. These estimates are prepared on the basis that the development will be operating 7 days per week.

Table 2: Total estimated volume of waste generated.

Space Type	Estimated Total Garbage	Estimated Total Commingled Recyclables	Estimated Total Clean Paper & Cardboard	Estimated Total Plastic
Trade Supplies (Shops – non-food) - 8,218m <sup>2</sup>	4,109L/day	-	2,055L/day	2,055L/day
Takeaway/Café (pre-packaged food) - 50m <sup>2</sup>	75L/day	75L/day	-	-
Office & Staff Amenities - 227m <sup>2</sup>	23L/day	12L/day	12L/day	-
<b>Total daily</b>	<b>4,207L/day</b>	<b>87L/day</b>	<b>2,067L/day</b>	<b>2,055L/day</b>

### 3. Waste and Bin Types, Collection Method & Frequency

#### 3.1 Garbage

For this development, it is proposed that daily, on-site collection of garbage is to be adopted and that the collection of this waste stream is to be undertaken by private waste contractors.

As outlined in Table 2 above, the total daily garbage generated is estimated to be 4,207L and this will be adequately covered with 4 x 1,100L bins, as listed in Table 3 (below).

### 3.2 Garden Waste and Organics

For this development, it is proposed that weekly, on-site collection of garden waste and organics is to be adopted and that this collection is to be undertaken by private waste contractors.

Although included within the estimated total garbage, to achieve more sustainable waste management outcomes, in addition to the above garbage bins, there are to be 2 x 240L dedicated bins for the disposal of garden waste & organics, with these bins to be collected weekly.

It is noted that the garden waste and organics is expected to be generated out of the Café, staff amenities and the garden sections of the Trade Supplies (outdoor nursery and bagged goods).

### 3.3 Commingled Recyclables

For this development, it is proposed that weekly, on-site collection of commingled recyclables is to be adopted and that this collection is to be undertaken by private waste contractors.

As outlined in Table 2 above, the total daily commingled recyclables generated is estimated to be 87L per day or 609L per week, which will be adequately covered with 3 x 240L bins collected weekly, as listed in Table 3 (below).

It is noted that the Trade Supplies area does not generate commingled recyclables, as it only generates Cardboard and Plastic waste.

**Table 3: Capacity, quantity and typical dimensions of bins for the development.**



Bin Storage Type	Capacity	Quantity	Dimensions	Collection Frequency
	1,100L	4 x Garbage	Height 1.5m Width 1.4m Depth 1.3m	Daily
	240L	2 x Garden Waste & Organics	Width 0.6m Depth 0.8m Height 1.1m	Weekly
	240L	3 x Commingled Recyclables	Width 0.6m Depth 0.8m Height 1.1m	Weekly
	240L	2 x Confidential Paper	Width 0.6m Depth 0.8m Height 1.1m	Monthly
<b>Total</b>	<b>11 bins (4 x 1,100L and 7 x 240L)</b>			

The colour of the bins shown in Table 3 (above) are indicative only. Actual bins to be provided will be as supplied by the private waste contractor with a commitment that bins will be easily distinguishable, including different coloured lids, and will have appropriate signage on each bin to assist in distinguishing the purpose of each bin for either garbage, commingled recycling, garden waste & organics or confidential paper.



### 3.4 Confidential Paper

For this development, it is proposed that monthly, on-site collection of confidential paper is to be adopted and that the collection is to be undertaken by private waste contractors.

As outlined in Table 2 above, the total daily confidential paper generated is estimated to be 12L per day or 372L per month, which will be adequately covered with 2 x 240L bins dedicated to this waste stream with these collected monthly, as listed in Table 3 (above).

Confidential paper is collected and shredded offsite and then recycled.

### 3.5 Cardboard and Paper

A lot of goods are delivered to this development in boxes containing multiple items. These cardboard boxes of a variety of sizes, once emptied, are then placed at the front of the check outs and these are utilized by customers to carry purchased items home.

Where cardboard packaging cannot be reused, and paper not deemed to be confidential, this is put into a cardboard baler located in the loading area and compacted and baled. This baled cardboard and paper is stored on site and collected weekly and taken to be recycled.

It is estimated that approximately 6 bales of cardboard and paper will be collected each week. Cardboard and paper waste is estimated to be around 50% of the recyclables generated within the Trade Supplies area.

### 3.6 Plastic

Some goods are delivered to this development wrapped in plastic and once removed, this plastic is put into a plastic baler located in the loading area and compacted and baled. This baled plastic is stored on site and collected weekly and taken to be recycled.

It is estimated that approximately 6 bales of plastic will be collected each week. This plastic waste is estimated to be around 50% of the recyclables generated within the Trade Supplies area.

### 3.7 Timber Waste

Although a significant portion of products arrive on rented timber pallets which are collected and reused, there is a proportion of deliveries which arrive on non-returnable or re-usable timber pallets. These non-reusable timber pallets are stored/stockpiled on site and then collected as and when required, and taken away to be recycled.

## 4. Waste Storage & Collection

### 4.1 Bin Locations

The bins for this development are stored within and emptied in the Loading Area on the ground floor.

The Loading Area is accessible only off Glenlyon Road with restricted access which allows only waste and delivery vehicles, with a one way traffic flow and exit onto Pitt Street, with waste and delivery vehicles entering and exiting the property in a forward direction without needing to undertake any reversing movements on site.

As shown on the architectural drawings (refer Figure 3 below), with in the loading bay there is a dedicated area to accommodate the required 4 x 1,100L bins and 7 x 240L bins, with adequate space for access and maneuvering of these bins.

There is also space within the loading bay for additional bins, should these be required, or should it later be determined that additional waste streams are to be separately collected.

Staff will ensure that the bin area remains clean and clear and bin wash facilities will be provided within the loading area, with a floor waste connected to sewer.



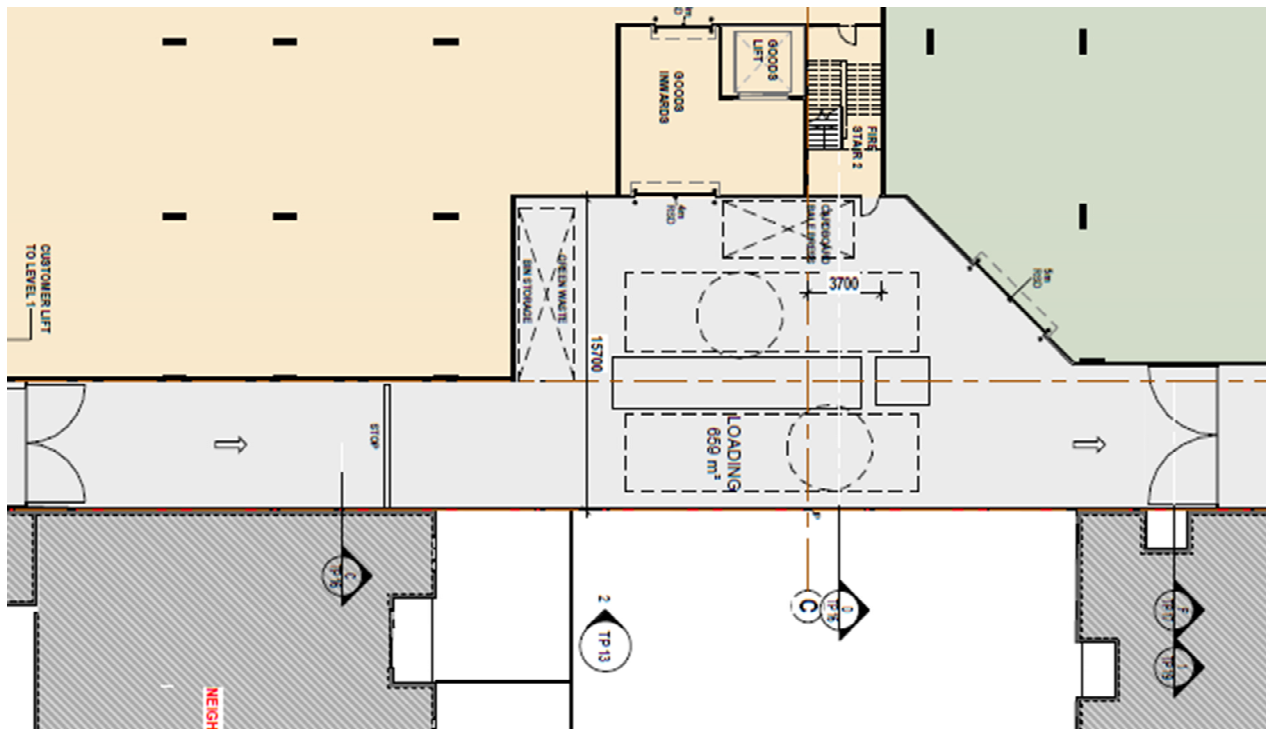


Figure 3: Loading bay and bin storage area

## 4.2 Waste Collection

Waste collection will be undertaken on site by private waste contractors either daily, weekly or monthly as listed in Table 3 above and as set out in Section 3 of this report.

The collection will require different trucks, one for each waste stream, with the collection on-site within the loading area.

Waste collection will occur outside of peak traffic hours to reduce impacts on local traffic in the area, as well as to minimise any disturbance to neighbouring properties.

Waste collection will also not occur outside of the hours of 7am and 8pm Monday to Saturday and 9am and 8pm Sunday and Public Holidays, as required by the EPA Noise Control Guideline<sup>2</sup> (1254).

## 4.3 Regular Maintenance

Staff will be responsible for the upkeep and cleaning of the bins as well as the location where the bins are stored, as well as installing and maintaining vermin traps within the bin storage area.

The private waste contractor will undertake maintenance and repairs on the bins as and when necessary.

## 4.4 Signage

Appropriate signage will be placed where the bins are stored, including where internal bins are distributed throughout the facility. Visual prompts stuck to the bins, such as Figure 7 below, will assist in the proper disposal of the different types of waste.

<sup>2</sup> For more information, see <https://www.epa.vic.gov.au/~media/Publications/1254.pdf>



Figure 4: Examples of proper disposal signage from Sustainability Victoria

Printable signage can be found in Sustainability Victoria's website: [www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)

Signage may also be provided by the private waste contractor.

## 5. Implementation

The management of this Bunnings Warehouse will be responsible for implementing this Waste Management Plan and will put in place a review process allowing for future revisions as they may be required from time to time, or if operational requirements change.

## 6. Summary

This WMP outlines the practical arrangements for how waste management and recycling will occur within the proposed trade supplies development (Bunnings Warehouse) at 145 Glenlyon Road, Brunswick East.

The waste management strategies outlined in this WMP build on best-practice principles, achieving improved sustainable waste management outcomes, including the inclusion of clean paper & cardboard and garden waste & organics both being separated and collected as individual waste streams.

The implementation of this WMP will assist to achieve the correct disposal of waste generated in this development and will help all staff to be aware of ways to avoid and minimise waste. It will also ensure that all waste is stored and collected effectively, without compromising the capacity and tidiness of the bin storage area, collection point or surrounding areas as well as minimising impact on the neighbouring properties.