

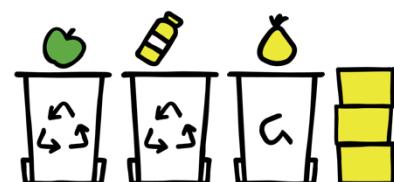
# Architekton<sup>TM</sup>

## Waste Management Plan & Operations Guide

Multi Townhouse Development

- 92 Whitelaw Street, Reservoir

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Date: 25 July 2024



Version	Date	Description	Prepared by	Checked by
1.0	25/07/2024		HC	HC

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Commercial waste calculations are based on rates provided by government organisations and adopted and used as an industry standard. Bin numbers and spatial requirements have been calculated in accordance with these guidelines. The end user requirements may vary from this depending on the business use, type and operational practice.

## Table of Contents

<b>1</b>	<b>Waste Summary</b>	4
1.1	Proposed Development	4
1.2	Waste Collection Summary	4
1.3	Bin Store(s) & Collection Plan	5
<b>2</b>	<b>Waste Management Plan</b>	6
2.1	Future 4-bin System	7
2.2	Council Considerations	8
2.3	Standard Residential Collection Options	8
2.4	Proposed Residential Waste Solution	8
2.5	Food Waste Collections	9
2.6	Green Garden Waste	9
2.7	Bulky Hard Waste Collection	9
2.8	E-Waste Recycling	10
2.9	Glass Collections	10
<b>3</b>	<b>Waste Management Details</b>	11
3.1	Waste Streaming & Contamination	11
3.2	Preliminary Waste Streaming	11
3.3	Management Responsibilities	11
3.4	Individual Occupants Responsibilities	11
3.5	What is placed in Each Bin	12
3.6	Occupational Health & Safety	12
3.7	Bin Types & Bin Sizes	13
3.7.1	Mobile Wheelie Bins (MGBs)	13
3.7.2	Internal Bins - Residential	13
3.8	Signage, Education & Safety	14
3.9	Noise management	15
3.10	Response to Increasing Waste	15
3.11	Reducing Odour	15
3.12	Litter Spread	15
<b>4</b>	<b>Minimising Waste to Landfill</b>	16
4.1	Waste minimisation	18
4.2	Good recycling practices	20
<b>5</b>	<b>Supplementary information</b>	21
5.1	Council Recycling Centre	21
5.2	Waste Contractors	21

<b>5.3 Other Useful Links .....</b>	<b>21</b>
<b>Appendix 1 – Preliminary Risk review.....</b>	<b>22</b>
<b>Appendix 2 - Better Practice Waste Recycling.....</b>	<b>23</b>
<b>Food Organics &amp; Garden Organics .....</b>	<b>23</b>
Tips for FOGO .....	23
On-site Composting – Private or Communal .....	23
Community Partnerships & Government Initiatives.....	24
<b>Plastics, Glass &amp; Aluminium .....</b>	<b>25</b>
Victoria Container Deposit Scheme .....	25
The VIC Single Use Plastics ban.....	25
Hard Plastics .....	25
Soft Plastic Recycling .....	25
<b>Polystyrene .....</b>	<b>26</b>
<b>Other Items and Textiles.....</b>	<b>26</b>
Other Unwanted Items .....	26
Clothes Recycling .....	26

# 1 WASTE SUMMARY

## 1.1 Proposed Development

<b>Address:</b>	92 Whitelaw Street Reservoir
<b>Type:</b>	Townhouse development
<b>Dwellings:</b>	3 Dwellings
<b>Planning Application / Permit No.:</b>	D/117/2024

The proposed development comprises of 3 townhouses to be individually titled. One internal driveway connects all of the garaging with vehicular access from the Northwest corner of Whitelaw Street for the Proposed Dwellings. Individual tenements are able to store and maintain their own waste bins, placing them out for collection.

Space for the collection, separation and storage of waste and recyclables has been provided, including opportunities for on-site management of food waste through composting or other waste recovery as appropriate.

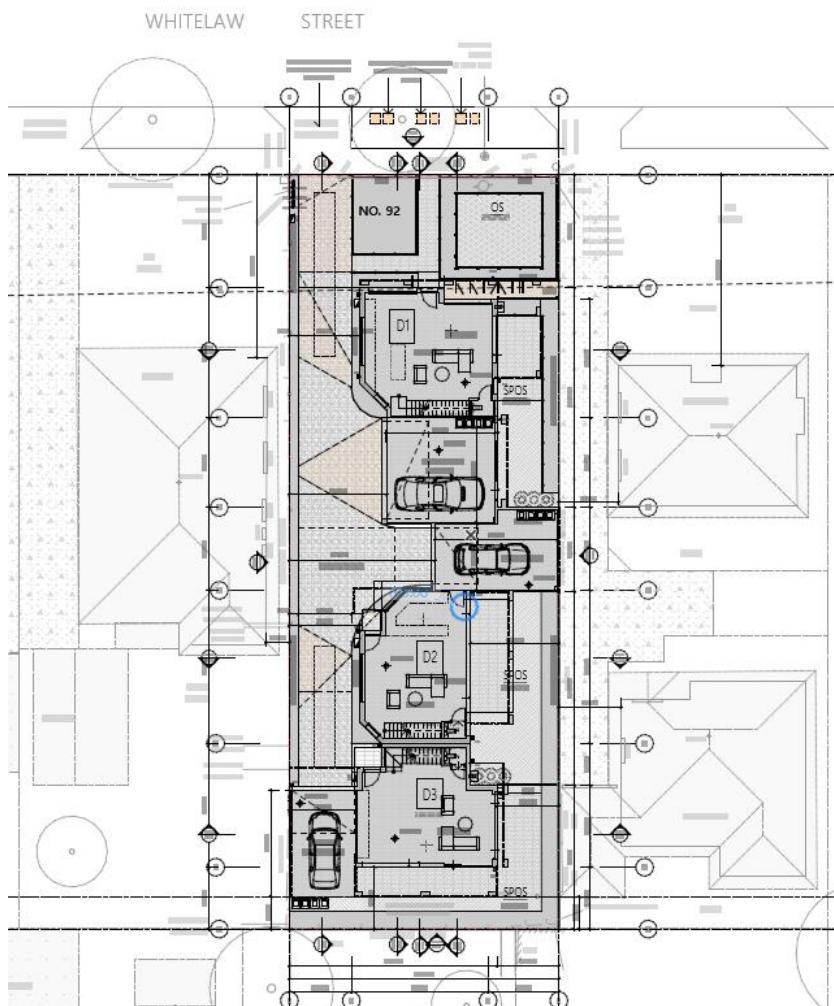
## 1.2 Waste Collection Summary

A council collection service is proposed to collect the following bins at the indicated frequency. The bins will be collected from the nature strip.

Residential waste	Council collection service – collection from Bowmore Road	
Waste streams	No. of bins and capacity	Collection frequency
Co-mingled Recycling	3 x 240L	Fortnightly
FOGO (Food Organics Garden Organics)	3 x 240L or 120L	Fortnightly
Glass	(Future provision) *	-
Landfill	3 x 240L or 120L	Once weekly
Hard waste	Stored within each tenement	1 x on call collections per year
E-waste	Must be excluded from landfill waste.	Appliances included in the 1 x on call collections per year. For other items, residents at the Council depot (and some other Council facilities) or other e- waste collection sites such as Officeworks.
Other waste streams	<ul style="list-style-type: none"> <li>▪ Batteries</li> <li>▪ Soft plastics</li> <li>▪ Printer cartridges</li> </ul> Optional but recommended that a space be allowed to stream these items.	

\* While currently not required a 4-bin system will be in place in the future as discussed in [Section 2.1](#). Each tenement has space available to store 4 bins.

### 1.3 Bin Store(s) & Collection Plan



Plan - OnStreet Collection

Plan OnSite Storage

## 2 WASTE MANAGEMENT PLAN



Architekton® has been engaged by Mr Reece Walker to assess the proposed development at 92 Whitelaw Street Reservoir to provide a Waste Management Plan (as required by Statutory Planning).

A waste management analysis has been undertaken based on the following documents:

- Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi- Unit Developments 2018.
- Darebin Council's Request for Further Information dated 17 April 2024.

This report is based on and relies on the following documentation:

- Development Plans (S50 Plans) produced by Architekton®

The approved Waste Management Plan (WMP) will be the model to be adopted for this development. Detailed design and as-built installation must incorporate the design proposed and approved under this WMP. Any revisions of the WMP or changes to the approved waste system of the development will require Council

approval and subsequently require a re-submitted Waste Management Plan. Further and better particulars are contained within this report.

This waste management plan is based on the following conditions:

**i. Inclusions**

- On-going use of the premises. Does not include demolition or construction stages.
- Figures and calculations are based on our drawings and information supplied by our client Pty Ltd.
- Waste volume figures are estimates only and will be influenced by the tenants / residents disposition toward waste disposal and recycling, and by the development's occupancy rate.

**ii. Exclusions**

- Hard rubbish wastes. Disposal shall be in accordance with City of Greater Dandenong Councils annual hard waste collection program.

## 2.1 Future 4-bin System

Victoria is set to implement a 4-bin colour coded waste and recycling system in all residential settings by 2027. It is proposed that 79 different Local Councils (LGA'S) will work towards this, some will implement the scheme sooner than others. Generally, all new developments will seek to and will be required to incorporate space for these waste streams now in the planning phase.

All Municipalities will have different percentages of glass and food volumes within each general waste and recycling streams. Bin numbers may need to be adjusted during the first 6-12 months of occupation, subject to Council approval, to ensure appropriate streaming can occur.

In the interim, if separate glass collections are not possible, these bins may be temporarily substituted for co-mingled recycling bins. More information can be found at <https://www.vic.gov.au/four-bin-waste-and-recycling-system>



## 2.2 Council Considerations

The following considerations and constraints determined the preparation of this waste collection strategy:

- Utilization of Council collection is the preferred option for future residents as the cost is included in the council rates.
- Council uses an automated mechanical side arm service i.e., requires 300mm between bins (bins occupy 1m space per bin).
- A kerbside collection is currently viable with the requirement for 300mm spacing between bins. Street collection currently occurs along Whitelaw Street for the other adjoining residential properties.

## 2.3 Standard Residential Collection Options

Darabein Council standard residential Bin Collection Options:

- 80L or 120L landfill bins collected weekly.
- 120L or 240L FOGO bins collected fortnightly.
- 240L co-mingled recycling bins fortnightly.
- 3m<sup>3</sup> hard waste collected once yearly (booked service) including limited e-Waste

## 2.4 Proposed Residential Waste Solution

**Site Layout:** Refer Bin Store & Collection Plan – [Section 1.3.](#)

**Waste Streaming:** Within each unit – include 5-7L food waste caddy as well as recycling, glass & landfill bins – Refer [Section 3.8](#) below.

**Collection Type:** Council Kerbside collection service to collect all waste streams.

**Collection Location:** From the Kerbside on Whitelaw Street.

**Bin Store Location:** Individually stored within each garage or SPOS. Refer Bin Store & Collection Plan - [Section 1.3.](#)

Residential	Darabein council Waste generation volume			Proposed Townhouse solution		
	No. Units	Allowances	Total estimated weekly waste volume	No. of Bins	Bin Size	Collection Frequency
Co-mingled Recycling	3	240L per dwelling per fortnight	720L of recycling	3	240L	Fortnightly
FOGO/Garden waste		120L or 240L per dwelling per fortnight	720L of food & garden organics	3	12L or 240L	On the alternate fortnight
Future Glass <sup>1</sup>		(Future provision)	-	3	tbc	Tbc
Landfill Waste		80L or 120L per dwelling per week	7200L to landfill	612	80L or 120L	Once weekly

Hard Waste		See section 2.7 & Appendix 4 for bulky Hardwaste Collections & Recycling. (Additional collections are available for an additional fee)	na	na	1 x booked annually
E-waste		See Section 2.8 & Appendix 4 for E-Waste Collections & Recycling	na	na	As per Hard waste
Other items		<p>1 bin per waste stream or a stack or tubs for:</p> <ul style="list-style-type: none"> <li>▪ Batteries</li> <li>▪ light bulbs</li> <li>▪ clothes</li> <li>▪ printer cartridges</li> <li>▪ soft plastics</li> </ul> <p>See <b>Section 3.7.2 &amp; Appendix 4</b> for more information.</p>	-	-	As often as required to maintain bins

<sup>1</sup> The Age (2019), <https://www.theage.com.au/national/victoria/victoria-will-get-cash-for-cans-container-deposit-scheme-20200201-p53wun.html>

## 2.5 Food Waste Collections

Food waste is increasingly being collected and treated as a circular economy resource rather than a linear waste item that goes to landfill. In a country such as Australia with a very shallow soil profile, composted food waste provides valuable organic matter that re-invigorates soil fertility. The previous alternative was to landfill food waste where it decomposes underground and produces harmful greenhouse gases.

The Better Practice Guidelines<sup>2</sup> stipulates diverting food from landfill waste. This can be achieved in a number of ways including on site composting or treatment – refer **Section 3.7.3 & Appendix 4** below.

**Darebin Council kerbside collections already offer Food Organic, Garden Organic (FOGO) collections for single residences, townhouse and some unit developments.**

## 2.6 Green Garden Waste

All future occupants are encouraged to compost as much garden as possible within their own tenement. This can be re-used for their own garden. Council currently collects combined food organics and green organics (FOGO) weekly/fortnightly from the kerbside. Future Residents can utilise this service to manage all organic (food & garden) waste from within their own tenement.

- a) For common areas a private maintenance contractor will be responsible for removing any green garden.
- b) Common area gardens are recommended to be designed to encourage low maintenance gardens and an annual or bi-annual pruning. This service will need to be arranged by the owner's corporation.

## 2.7 Collection of Bulky Hard Waste

In the first instance, unwanted bulky items, clothes and other consumables should be donated to charities, or sold on online or at second-hand marketplaces if in good condition. Should repairs be required, seek out repair community centres for re-purposing – Refer **Appendix 4** for more details.

- a) Darebin council provides one residential booked hard rubbish collections per household a year of 3 cubic meters.
- b) Individual tenements are to arrange additional hard rubbish collections as required. This is available through the council or an additional fee.
- c) Hardwaste items can also be taken directly to the Council run local waste recovery centre.

d) Local information regarding the disposal and recycling of common household items for each Council can be found at:

- [www.sustainability.vic.gov.au/You-and-your-home/Waste-and-recycling/Council-waste-and-recycling-services](http://www.sustainability.vic.gov.au/You-and-your-home/Waste-and-recycling/Council-waste-and-recycling-services)
- [www.recyclingnearyou.com.au](http://www.recyclingnearyou.com.au)

## 2.8 E-Waste Recycling

- a) As of 1st July 2019, there has been a ban on e-waste sent to landfill in Victoria. Any item with a plug, battery or cord can no longer be placed in kerbside bins and instead must be deposited at a designated e-waste drop-off point. Electronic waste includes old mobile phones, computers, audio devices, refrigerators and other white goods, hair dryers, TVs, heaters, and air-conditioners.
- b) Council provides appliance collections as part of the annual residential hard rubbish collections. These items are to be placed separately to aid collection.
- c) Between collections, authorised electrical waste disposal locations can be found at:
  - Almost all council depots collect e-waste
  - Officeworks collects e-waste
  - Aldi stores accept batteries
  - Some Bunnings stores accept batteries



- <https://recyclingnearyou.com.au/electrical>
- <https://www.sustainability.vic.gov.au/Campaigns/eWaste/Where-do-I-take-ewaste>
- <https://www.mobilemuster.com.au>

## 2.9 Glass Collections

Glass is now commonly being removed from co-mingled recycling as crushed glass gets embedded in paper, cardboard and plastics and contaminates these waste streams, reducing their recycling value.

Space for additional glass bins is to be provided in all residential developments in line with Victoria's future 4-bin system. These bins are to be maximum 120L due to the potential weight of full bins. Each council will review the frequency of residential collections, most likely monthly.

## 3 WASTE MANAGEMENT DETAILS

### 3.1 Waste Streaming & Contamination

Managing waste contamination requires the correct separation of products that are recycled differently. This is commonly known as waste streaming. Correct streaming requires consideration by stakeholders that generate, dispose of or manage waste.

Good waste streaming reduces contamination to ensure more effective recycling. Refer to **Section 3.2 below** and **Appendix 4** for Better Practice Waste Management links.

### 3.2 Preliminary Waste Streaming

The development will include space in the respective kitchen areas or central hubs within the habitable space for the initial separation/streaming of waste. These cupboards or spaces are to be readily accessible to all occupants are to accommodate separate bins or drawers for the following major waste streams:

1. Co-mingled plastic and paper
2. Glass
3. Food organics
4. Soft plastics
5. Batteries / eWaste
6. Landfill

### 3.3 Management Responsibilities

The Owner's Corporation is responsible for all aspects of waste management including implementing adequate safe operating procedures. Items to be addressed include:

- a) Requesting a copy of the endorsed Waste Management Plan from Council if they do not have it the developer has failed to provide the WMP to them.
- b) Ensuring minimal contamination occurs between waste streams to maximise recycling. This is to be achieved by:
  - Providing separate bins for each waste stream (including recycling, glass, food organics & landfill) in all units for residents to appropriately stream waste. See **Section 4.2.1**.
  - Providing information to occupants with guides of how to use the various bin systems e.g. boxes to be flattened, containers for recycling washed, bins to not be over-full. See **Section 3.13** for further information about Signage, Education & Safety.
  - Ensuring building occupants / staff are aware of good recycling practices per **Section 4.1** of this report.
  - Providing feedback to occupants if the system is not working properly. Undertaking a waste audit should it be suspected waste is not being placed in the correct bins.
- c) Ensuring all occupants are aware of their responsibility with regard to waste & bin management.

### 3.4 Individual Occupants Responsibilities

Each Individual occupant will be solely responsible for their own waste. The following Items are required to be addressed in maintaining the system include:

- a) The placement of bins in the designated collection location before the allocated collection day. All bins are to be returned on the same day collections occur.
- b) Individual occupants are responsible for placing their waste in the appropriate colour coded bins. This is to ensure all waste types are collected and recycled where possible and contamination of waste streams is minimised.
- c) Bins and bins storage areas are monitored regularly to ensure areas are fully operational with regular cleaning of the bins and bin store spaces and clean-up after collection if necessary.

d) Management and coordination with council for bulky hard waste, e-waste and other waste collections.

e) Managing communal composting areas (if applicable).

f) **Ensuring landfill placed in plastic bags** before placement into bins

g) **Ensuring recycling materials are not bagged** and are to be placed loosely into the recycling bins. (Items in plastic bags in recycling bins are not recycled). Recyclable items included for domestic bin collections are:

- Rigid plastic containers
- Paper, cardboard
- Glass bottles and jars
- Steel cans, aluminium cans and aluminium foil are among items that can be recycled.

Exclusions are as follows:

- Soft plastic bags
- Rope & hoses (ropes and garden hoses can wrap around and damage equipment in the recycling plant).

### 3.5 What is placed in Each Bin

This information can be found by following the link below:  
[Public recycling bins | Let's sort out our waste! | Your Say Darebin](#)

### 3.6 Occupational Health & Safety

A **preliminary OHS risk assessment** has been included to identify potential OHS issues, however this risk assessment does not replace the need for the Management and collection contractors to complete their own OHS assessment for the bin collection process. See **Appendix 1** for further detail.

## 3.7 Bin Types & Bin Sizes

### 3.7.1 Mobile Wheelie Bins (MGBs)

The following sizes are indicative bin sizes based on the Sustainability Victoria Better Practice Guide specified sizes (Appendix 9). These sizes are the size allowances required by most Councils in bin store areas. Allow 100mm between 4-wheel bins and 50mm between 2-wheel bins for movement.



Size	Width	Depth	Height	Footprint
80L	450mm	530mm	870mm	0.24m <sup>2</sup>
120L	285mm	560mm	940mm	0.27m <sup>2</sup>
240L	580mm	735mm	1080mm	0.43m <sup>2</sup>
360L	600mm	885mm	1100mm	0.53m <sup>2</sup>
660L	1370mm	850mm	1250mm	1.16m <sup>2</sup>
1100L	1370mm	1245mm	1470mm	1.71m <sup>2</sup>



#### Standard bin colours (refer AS4123.7)

Landfill	Red
CO-mingled recycling	Yellow
Green organics	Light Green
Glass	Purple
Paper and cardboard	Light blue
E-waste	Light Grey

\* NOTE: size may vary between Councils and contract suppliers

### 3.7.2 Internal Bins - Residential

In medium density housing developments streamlined waste bins are to be included in each dwelling (potentially under the kitchen sink). Bin types are to include Co-mingled Recycling, Organic Food Waste, Glass and Landfill (general) waste.

Where food and garden organic waste can be composted onsite, Bokashi Bins or Urban Composters used in the kitchen can speed up this process. Residents should check with their LGA as to any potential discounts available for garden composting units and worm farms. See **Appendix 4** for more details.



Kitchen Caddy – supplied by council where food scraps can be placed in FOGO bins.



Pull-out kitchen bins to be supplied in each unit for better waste separation. This encourages better recycling practices.



Apartment Bokashi / Urban Composter bins where food scraps can be placed in on site compost.



Examples of a stack of tubs for small recyclable waste streams such as batteries, light globes and printer cartridges.

### 3.8 Signage, Education & Safety

It will be the responsibility of the Owner's Corporation / townhouse residents to ensure all occupants have all of the material available to them and that they adhere to the required practices regarding waste management, sustainability and promoting waste minimisation.

- All education material will be in accordance with Council requirement or if this is not available, per signage on the following website:
  - <https://www.sustainability.vic.gov.au/recycling-and-reducing-waste/waste-systems-in-residential-commercial-and-industrial-buildings/waste-signage>
- Instructional signage within shared communal bin stores is to indicate which bin is for landfill and which is for recyclables or other waste streams.



Simple, brightly coloured signs to quickly communicate what items are acceptable for each bin.

- A sign will be placed on the landfill bin that soft plastics can be recycled at any location identified on the Recycle website <http://www.redcycle.net.au/where-to-redcycle/>



### 3.9 Noise management

Minimizing any associated noise with waste movement and collections include:

- Locating bin stores and collection points at an appropriate distance from both onsite and adjoining residences.
- Minimising the need for the waste vehicle to reverse.

### 3.10 Response to Increasing Waste

- A waste audit can be undertaken to understand the content of the waste bins. Audits provide feedback to clients of good or poor recycling practices. Images can be helpful to convey feedback.
- If landfill bins consistently overflow, then residents are to be directed to educational material as to the appropriate streaming of waste including food and other recyclables. (Refer to **Section 4** and;
- Hard plastic** containers not collected in comingled recycling coded 1-7 (excluding polystyrene) can generally be recycled. This should be checked with each council or private collection contractor. I.e., toys, tubs etc
- Soft Plastic Recycling below
- If recycling bins continue to overflow, residents should be reminded to crush and flatten all cardboard boxes before placing these in the recycling bin(s). It may also be appropriate to obtain an additional recycling bin.

### 3.11 Reducing Odour

Odour from waste primarily emanates from bin store areas. Control of odour must occur in the bin store area with the provision of suitable natural or mechanical ventilation.

- In this case, bins are stored privately within each townhouse. It is each resident's responsibility to ensure bins are maintained.
- The bin store areas and bins are to be monitored and cleaned on a regular basis to remove sources of smells.

### 3.12 Litter Spread

- Litter spread is to be managed by ensuring bins are not overloaded, and lids are always closed.

## 4 MINIMISING WASTE TO LANDFILL

A circular economy is a system where products and services are designed to be reused or ideally be regenerative i.e., to repair the environment. This differs from the predominantly linear model of “take, make and waste” that we have seen in the last few decades.

Food organics is an example of where waste can be regenerative. Food waste is now being actively used via composting to improve the quality of soils.

While occupants of buildings are generally limited in how they can impact on the design of products to make them re-useable, they can change their own and others behaviour to minimise waste.

Where possible building occupants should practice the waste reduction hierarchy identified in the Victorian Environmental Protection Act 2017.

Avoidance of landfill waste by building occupants might involve the following:

- Purchase only what you will consume
- Purchase items of quality that can be re-used, sold on donated or up cycled.
- Use re-usable drink bottles, lunch containers, shopping bags
- Avoid single use plastics
- Compost anything that once was alive



The **2025 National Packaging Targets** are supported by Australian industry and government to deliver a new and sustainable approach to packaging. They apply to all packaging that is made, used and sold in Australia.

The 2025 Targets are:

- 100% reusable, recyclable, or compostable packaging.
- 70% of plastic packaging being recycled or composted.
- 50% of average recycled content included in packaging (revised from 30% in 2020).
- The phase out of problematic and unnecessary single-use plastics packaging.

In March 2020, The Australian Packaging Covenant Organisation (APCO) also released a series of material-specific sub-targets relating to the uptake of recycled content in packaging



The Australian Packaging Covenant Organisation (APCO) is a not-for-profit organisation leading the development of a circular economy for packaging in Australia.<sup>3</sup>

<sup>3</sup> <https://apco.org.au/national-packaging-targets>



## 4.1 Waste minimisation

Maximising recycling has been the focus of stakeholder efforts for quite some time. The ultimate goal beyond maximising recycling should also be to reduce all waste. Landfill waste charges will also continuously increase in the coming years making it more expensive to dispose of general waste to encourage recycling and waste minimisation practices.

### Goals for Comprehensive streaming of all waste:

- All re-usable items diverted from landfill and a satisfactory re-use found for them
- All recyclables diverted from landfill and appropriately recycled
- Full composting of all food, garden organics and non-recyclable compostable packaging waste generated at the school.
- Annual reductions in all waste generated on site including waste to landfill and recycling – i.e. design out waste.
- Reach the Victorian Government good waste performance target of 0.3m3 per student.
- Support development of a circular economy where at the end of an item's useful life with one person that item is forwarded on and re-used by others, repurposed, or recycled into an equivalent or greater value item. The use and re-use of resources creates a circular product life cycle as opposed to the linear consume and dispose of to landfill product lifecycle.

The following basic principles should be followed as a path to overall waste reduction: Determine a waste strategy for each waste stream.

1. Identify a location for each waste stream to be kept temporarily until collection or disposal at the correct facility
  - **Paper / cardboard:** Paper, cardboard boxes, delivered cartons
  - **Commingled recyclables:** Hard plastics with appropriate plastics codes, aluminium cans
  - **Glass bottles and jars:** recyclable
  - **Food organics:** food waste generally excluding meat, dairy, citrus and onions
  - **Garden waste: grass clippings, vegetation pruning's**
  - **Domestically compostable food packaging:** non lined cardboard packaging
  - **Commercially compostable food packaging containers:** typically plant plastic lined cardboard container, paper napkins
  - **Soft plastics:** product packaging, lunchbox wrappers, cling wrap, plastic bags.
  - **E-waste:** appliances, services, anything with a cord or battery powered
  - **Bulky hard waste:** old furniture, whitegoods, hard landscape items
  - **Miscellaneous items:** batteries, light bulbs, clothes, pens, printer cartridges etc
  - **Other plastics:** plastics not recyclable in co-mingled recycling collections, including polystyrene packaging
  - **Polystyrene**
2. Identify disposal strategy – will it be collected by council, private contractor or taken to various outlets by the occupant of maintenance representative.
3. Setting targets for waste minimisation
  - Set waste reduction targets
  - Longer term: Zero Waste to Landfill and zero waste leaving the school. Short term: achieve Victorian Government good waste performance target of 0.3m3 per student.
  - Report on performance against targets.
  - Zero waste supports net zero carbon
4. Adjust purchasing habits to reduce waste
  - Remove small single use non-recyclable plastics from the waste stream (these items will be banned from 1 February 2023)
  - Invest in items that will stand the test of time, that can be repaired or adapted for re-use.
5. Provide infrastructure to collect waste for each stream

Waste minimisation practices have been incorporated to reduce the standard rates of waste.

- Installing electric hand dryers will reduce landfill from bathroom use
- Utilising plastic bottle and aluminium can crushers will reduce co-mingled recycling volumes, and with the majority of foods being pre-prepared kitchen preparation generated food waste will be reduced. **Less bins, less transport, less fuel. Less emissions less cost**

With positive environmental practices that support a circular economy model, there is expected to be a small amount of waste as reflected in the proposed landfill and recycling bin services.

## 4.2 Good recycling practices

The following actions improve recycling outcomes.

- Empty containers and bottles of any leftover food or liquid. Ideally rinse them out.
- Generally keep lids separate from bottles when made from another product or plastic type (as is the case with most plastic drink bottles).
- Don't put anything inside plastic bottles or containers
- Paper – if it can't be ripped, it can't be recycled due to the plastic coating.
- Ensure awareness of the **Australasian Recycling Label (ARL)** which is on an increasing number of products. The ARL indicates which components of packaging are recyclable and helps ensure better recycling of packaging waste



- Be aware that if they are not sure whether an item is recyclable, then it should be placed in the landfill bin(s). Placing incorrect items in recycling is to be avoided as it leads to contamination of recycling streams, and complexity in recycling.
- Understand not all plastic resin codes can be recycled in all states, cities or councils. Many Council areas or waste collection contractors can only recycle a number of the plastics codes. Check with Council publications.
- Plastic resin codes 1, 2 and 5 are readily recycled and collected by most councils,
- Be aware of whether compostable packaging is home/garden compostable or requires higher temperatures as is available in commercial composting.
- Ensure compostable packaging is not placed in recycling streams. Compostable packaging is not useful as a recycled plastic as it breaks down.
- Check local waste collection / contractor requirements – some recycle all plastic resin codes, some are more restricted. Some want lids on bottles, some want them separate and in landfill.

Symbol	Description
	Clear tough plastic such as soft drink, juice and water bottles.
	Common white or coloured plastic such as milk containers and shampoo bottles.
	Hard rigid clear plastic such as cordial bottles.
	Soft flexible plastic e.g. squeezable bottles such as sauce bottles.
	Hard but flexible plastic such as microwave ware, takeaway containers, some yoghurt/ice cream/jam containers, hinged lunch boxes.
	Rigid, brittle plastic such as small tubs and margarine/butter containers.
	All other plastics, including acrylic and nylon. Examples include some sports drink bottles, sunglasses, large water cooler bottles.

## 5 SUPPLEMENTARY INFORMATION

### 5.1 Council Recycling Centre

Greater Dandenong Council Waste Directory:

<https://www.greaterdandenong.vic.gov.au/other-waste-and-recycling-options>

### 5.2 Waste Contractors

Waste collection companies in Victoria:

- Waste Wise Environmental [www.wastewise.com.au](http://www.wastewise.com.au) (Melb, Geelong, Ballarat)
- CSC Waste <https://cscwaste.com.au/> (Melb only at 08/2021)
- Waste Ninja <https://www.wasteninja.com.au>
- Kartaway <http://www.kartaway.com.au/melbourne/index.html>
- iDump Waste Management [www.idump.com.au](http://www.idump.com.au)
- Easy Waste - <http://www.easywaste.com.au>
- Citywide [www.citywide.com.au](http://www.citywide.com.au)
- JJ Richards & Sons [www.jjrichards.com.au](http://www.jjrichards.com.au) (Australia wide – depots per <https://www.jjrichards.com.au/contact/>)
- Suez (incl Sita) – [www.suez.com.au/en-au](http://www.suez.com.au/en-au) ph. 13 13 35
- KS Environmental - <https://ksenvironmental.com.au/> (Melbourne only)
- Transpacific-Cleanaway - <https://www.cleanaway.com.au>, ph. 13 13 39
- Veolia - <https://www.veolia.com/en>

### 5.3 Other Useful Links

- Sustainability Victoria <https://www.sustainability.vic.gov.au>
- PlanetARK <https://recyclingnearyou.com.au>
- Redcycle <https://redcycle.net.au>
- Sustainable Procurement Guide (for Commonwealth entities) <https://www.awe.gov.au/sites/default/files/documents/sustainable-procurement-guide.pdf>
- Wastech [www.wastech.com.au](http://www.wastech.com.au)
- EPA Victoria <https://www.epa.vic.gov.au/report-pollution>
- Greater Dandenong Council <https://www.greaterdandenong.vic.gov.au/household-waste-collection-services>

## APPENDIX 1 – PRELIMINARY RISK REVIEW

Class 1 Risk = Potential to cause death or permanent injury.		Class 2 Risk = Potential to cause injury requiring medical attention.		Class 3 Risk = Potential to cause an injury
Activity	Steps involved in completing activity & risk	Risk level	Risk mitigating measures	Implementation responsibility
Moving of bins from bin store to collection space	Risk of manual handling injuries	2	Use max bin sizes of 360L Ensure the distance of travel is no more than 40m. The bin transfer grade should not exceed 1:14 The travel path is to be kept free of all obstacles including loose gravel or dirt, steps, kerbs, speed bumps, berms, sills or ramps. Ensure all access points have suitably wide doorways and circulation areas.	Building Designer / Owners Corporation
Bin loading on street	Moving bins from temporary collection space to collection vehicle parked on street. Collection may occur at the rear of the truck. Risk of being struck by passing vehicles if step outside the line of the width of the truck	1	Bin collection operator's own safety measures incl training	Bin collection operator
<b>Note this assessment is for consideration during the design phase of the project. It is not to replace a risk assessment / Safe Work Method Statement being completed by the contractor and persons undertaking the waste removal process.</b>				

## APPENDIX 2 - BETTER PRACTICE WASTE RECYCLING

Below is a range of practical information and resources to better manage &/or divert many waste types from landfill into recycling streams.

### Food Organics & Garden Organics

#### Tips for [FOGO]

- Place all food waste direct into Council provided FOGO bins
- Keep the wheelie bin in a shady spot
- Use paper towel to line the bottom of approved compostable caddy liners to soak up any moisture that can cause the liner to break down quicker than normal
- Double wrap meat, bones and unwanted pet food (with newspaper or paper towel) before placing in your caddy
- Line the organics bin with newspaper to aid cleaning
- Wrap fish and seafood waste (in newspaper or paper towel) and place in your freezer until your next collection is due
- Sprinkle vinegar, baking soda, charcoal or eucalyptus oil in your organics bin to combat odours
- A mix of garden and food waste helps keep bin odours under control
- Purchase a Bin Kill tag that can be attached to the inside of your organics bin. The tag emits a vapour that kills flies and maggots. The product is available from Bunnings, Coles or Woolworths supermarkets.

#### On-site Composting – Private or Communal

- a) Bokashi bins <http://www.bokashi.com.au/> are an effective way of reducing waste volumes and breaking down food waste. Food scraps are placed in bokashi bins with an accelerator mix added. The volume of waste food is reduced, and the waste in the bin is already on the path to being composted. Bokashi bins can be emptied into compost bins so providing a compost bin on site and having a garden also helps. Bokashi bins are also available from <http://www.eco-organics.com.au/about-us.htm>
- b) Aerobic green cone bio-digester designer compost is a landscape option for some households, including multi-unit developments to divert a larger range of food waste (including bread, dairy, meat and small bones). Refer to <https://www.treehugger.com/lawn-garden/green-cone-solar-food-digester-will-reduce-90-food-waste-your-backyard.html> for more info.
- c) Subpod in-ground composting/worm farm unit [www.subpod.com](http://www.subpod.com) that composts fast, and ensures worms don't die off as they can often can in unshaded above-ground worm farms. These units can also be located in raised planters and act as seats in common areas. At capacity, 15L of food waste can be processed each month.
- d) Hungry Bin worm farms are a proven worm farm system that have been used by many private and commercial organisations & businesses to process food waste. The number of bins can be scaled up and down depending on the volume of waste being generated on site. <https://www.wormlovers.com.au>



Green cone bio-digester



Hungry bin worm farm unit



Subpod in-ground compost



Modbed inserts a Subpod into a mobile garden bed suitable for composting and growing healthy plants in apartments



Subpod's

## Community Partnerships & Government Initiatives

- a) **Love Food Hate Waste** aims to raise awareness of avoidable food waste from Victorian households. The average family in Victoria loses \$2,000 a year from wasting food. And two thirds of it could have eaten. <https://www.sustainability.vic.gov.au/>
- b) Sustainability Victoria provides information for households, schools businesses alike to reduce food waste through their **Love a List Challenge**.
- c) **Sharewaste network** [www.Sharewaste.com](http://www.Sharewaste.com) to find local residents who are happy to accept compostable food in their compost heaps. The website allows the parties to connect to donate food scraps. Residents or tenants / Food waste generators can register via the app.
- d) **Back to earth** - For more information about where your food goes when collected by contractors and how you can use it, see <https://backtoearth.vic.gov.au> an education initiative by Councils.
- e) **Join the Compost Revolution**

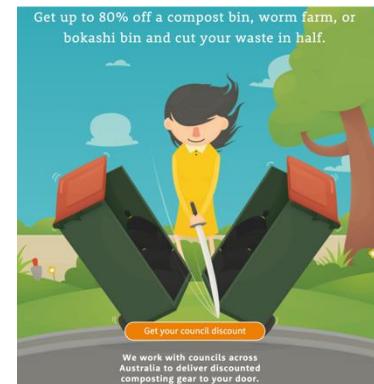


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<https://compostrevolution.com.au> provides up to a 80% discount on a number of composting bins and accessories. It also has a range of tutorials on how to compost.

Co-designed with councils, the Compost Revolution is a multi-award-winning program that educates and equips residents to cut their waste in half through home composting and worm farming. This platform is the only all-in-one education, infrastructure logistics and marketing program of its kind streamlining the process so that councils achieve waste and emissions reduction targets while saving money.



## Plastics, Glass & Aluminium

### Victoria Container Deposit Scheme

Victoria will have a container deposit scheme that will ensure more plastics, aluminium and glass containers are recycled, with the expected benefit that waste generation rates will be reduced further beyond estimates here. This scheme will be implemented by 2023 and will allow everyone to actively participate by taking his or her recyclables directly to an out let in exchange for a monitory refund.

More information can be found at <https://www.vic.gov.au/container-deposit-scheme>

### The VIC Single Use Plastics ban

As of 1 February 2023 there will be a ban on single-use plastics from sale or supply across Victoria. These products include:

- Plastic drinking straws
- Plastic cutlery, plates, drink-stirrers
- Expanded polystyrene food and drink containers
- Cotton bud sticks

**This ban will also apply to items made from conventional plastic and those made from degradable, biodegradable and compostable plastic.**

- a) EPA Victoria is managing compliance monitoring and reports of suspected banned bags. Further information can be found at: <https://www.vic.gov.au/single-use-plastics>
  - As of 1st November 2019 there was also a ban on lightweight plastic shopping bags. All retailers including restaurants are not permitted to provide or use these plastic bags.
- b) The ban applies to all lightweight plastic shopping bags that have a thickness of 35 microns or less at any part of the bag, including degradable, biodegradable, and compostable bags.
- c) EPA Victoria is managing compliance monitoring and reports of suspected banned bags. Further information can be found at: <https://vicbagban.com.au> & <https://www.sustainability.vic.gov.au/PlasticBags>

### Hard Plastics

Hard plastic containers not collected in comingled recycling coded 1-7 (excluding polystyrene) can generally be recycled. This should be checked with each council or private collection contractor. ie toys, tubs etc

### Soft Plastic Recycling

Eliminating or reducing the use of single-use plastics can greatly reduce waste volumes both in residential and commercial settings. This includes straws, plastic bags and plastic wraps. Many private waste contractors can commercially collect soft Plastic.

- **Coles and Woolworths** both offer plastic bag and soft plastic recycling. Residents can place all plastics in one plastic bag and add it to the recycling bin at the supermarket for collection. Any location identified on the Redcycle website <http://www.redcycle.net.au/where-to-redcycle/>

## Polystyrene

Expanded Polystyrene (EPS) is a problematic material that takes hundreds of years to breakdown in landfill. Despite 98% of the plastic packaging being air, EPS takes up large amounts of space in landfills where it can easily be blown away and enter our natural environment.

For residents, polystyrene can be collected separately and taken to the nearest local recovery centre that recycles this waste. These centres can be found at: <https://recyclingnearyou.com.au/polystyrene/MelbourneVIC>

## Other Items and Textiles

### Other Unwanted Items

Unwanted items, clothes and other consumables can be donated to charities, sold on online or at second-hand local market places if in good condition. If repairs are required, seek out repair community centres for re-purposing.

- **PlanetARK** for a comprehensive listing to each council. <https://recyclingnearyou.com.au/councils/>
- Suppliers such as **Ecycle** <http://www.ecyclesolutions.net.au> will deliver whitegoods and either collect clean polystyrene from retailers or take polystyrene away after delivery.
- **TerraCycle** is a national initiative where you can look up where to deposit non-recyclable waste such as contact lenses, coffee capsules, mailing satchels, toothbrushes & tubes. <http://www.terracyclemap.com>



Colgate Oral Care Recycling Program

Recycle your oral care through this program.



- **Toys for Joy** recycle any brand of pre-loved toys for free with partners Big W & Terracycle. These are for toys that cannot otherwise be donated such as broken parts or just worn out. This avoids more toys in landfill. There are drop off points Australia wide at Big W stores. <https://www.bigw.com.au/toys-for-joy>

### Clothes Recycling

Clothing in good condition can be donated to a number of charities. For clothes that cannot be re-worn, textile recyclers are available Australia wide for public and commercial donators including:

- <https://scrg.com.au>
- <https://texrecaus.com>
- <https://upparel.com.au/toesox-australia/>