



# Working Toward Best Practice Waste Management in Multi-unit Dwellings: Five Unique Case Studies

**The case studies below have been developed by Reground and participating Councils based on an 18-month program with 60 apartment buildings in Victoria. The goal of this project was to reduce waste sent to landfill in multi-unit dwellings (MUDs) and has been delivered by Reground through support from the 10 participating Councils and Sustainability Victoria's Circular Economy Councils fund on behalf of the Victorian Government.**

'Best practice waste management' means reaching the highest possible recycling rates to reduce the amount of waste sent to landfill. Achieving this looks like separating recycling into their different materials and recycling options (e.g. cardboard/paper, separate from food organics & garden organics, separate from clothing and textiles). 'Best practice waste management' also takes into consideration how waste is disposed of once collected, and whether these systems are ethical and transparent to ensure good environmental and customer service outcomes.

To work towards achieving best practice waste management, the program targeted resident behaviour change through educational material and workshops. It also implemented waste area improvements including clear signage, floor markings and increased recycling type options.

These case studies portray the waste management experience with five different types of MUDs involved in the program. Across the 12-month engagement period, Reground worked directly with these buildings, their residents and the owners corporation committees and managers to make physical changes to their waste area and bring educational awareness to residents. Reground envisions 'best practice waste management' to include 6+ recycling bin types. While not every building was able to achieve this within the time frame, these case studies highlight what changes were able to be implemented and the opportunities these buildings have to build upon and improve their recycling systems moving forward.

**If you're feeling inspired to implement better waste and recycling systems in your own building, take a look at the "Best Practice Guides" here.**

# Case Study:

## Council serviced multi-unit dwellings

### 850 Pascoe Vale Road, Glenroy

**Units:** 22

**Building type:** Low rise, two storeys

**Waste area type:** Outdoor bin corral

**Serviced by:** Merri-bek City Council

**Before:** Access to general waste and mixed recycling only; no signage

**Improvements made:** Added food organics and garden organics (FOGO) and glass recycling; signage installed; waste area layout changed



**Signage:** Sustainability Victoria signage where possible has been placed above the bins, enhancing the bin area which previously had no signage. Where there was no wall space, signage was attached directly to the bins using tape.

**Retrofitting the space:** The additional recycling bins meant the waste area had been extended to outside the original bin corral. The bins are all kept in the same area, however general waste has been placed at the back to encourage residents to consider and access the recycling bins first.

**Textiles & e-waste:** The owners corporation used digital communication channels, reminding residents to take unwanted wearable clothing to a local charity store and e-waste to a local Officeworks or participating supermarket.



#### After installing Sustainability Victoria signage in this building, the data shows:

**Contamination in mixed recycling decreased significantly, from 33% to 4%. This shows residents have a better understanding of what materials go in what bins.**

**In the future this building is considering adding additional recycling options alongside their kerbside service. Here are their next steps:**

They can start by checking online to see if their local Council has any drop-off points for additional recycling (eg. e-waste or cardboard). Alternatively they can still contract a private waste collector for any additional recycling bin types they would like collected directly. This process is outlined further in the 'How to: install a new recycling bin type to your building' guide.

# Case Study:

## Privately serviced multi-unit dwellings

### 'The Rochester' - 6 Rochester St, Fitzroy

**Units:** 26

**Building type:** Medium high rise, six storeys

**Waste area type:** Indoor waste room on ground level, with general waste and mixed recycling chutes

**Service type:** Private

**Before:** Access to general waste and mixed recycling only

**Improvements made:** Added food organics, glass, cardboard & paper, e-waste, batteries, clothing donation, soft plastic, Container Deposit Scheme (CDS); installed signage (including chute signage) and floor markings; changed waste contractor



#### After installing new recycling bin types and Sustainability Victoria signage, the data shows:

**The percentage of waste recycled increased from 31% to 56%. More waste was recycled (51kg) than landfilled (33kg). Originally this property only had general rubbish and mixed recycling so this is a testament to engaged residents! Additionally, contamination across all recycling bin types decreased from 10% to 7.4%.**

**Signage:** Previous signage supplied by waste contractor was changed to Sustainability Victoria signage. All signage has been colour-coordinated with the bin lids and placed directly above using double-sided tape. The colour of the bin and the signage also aligns with the floor markings. The aim of this is to ensure the bins consistently stay in the same place in the waste area.

**Chute signage:** Each floor has chute signage which clearly outlines what can and can't go down the chutes. Residents are encouraged to use the bin room directly as much as possible and the additional recycling bin types available in the main waste area are clearly highlighted in each chute area.

**Food waste caddies:** Every resident was provided with a food waste caddy (delivered to their door) prior to food waste bin being installed in the building. Ensuring residents have access to a caddy significantly improves the uptake of residents using this bin!

**Batteries:** The main waste room has a small container available for battery recycling. When this is full, an assigned resident is responsible for taking this to a recycling point at the local supermarket. ([See here](#) for safe e-waste recycling.)

**Cardboard slicers:** These have been placed near the cardboard and paper bins in the waste room to assist residents in breaking down their cardboard boxes. The cardboard slicers use a small ceramic blade, so there's no safety risk to users.

**Waste education & progress tracking:** A resident in the building displays waste and recycling data received from their contractor outside the waste area, to show residents how the building is tracking and encourage people to continue with their recycling efforts.

**Waste room reveal party!** Organised by the owners committee, the reveal party encouraged residents to come down to the main waste area to see the new changes and learn about how to use their new recycling bin types.

# Case Study:

## Multi-unit dwellings with chutes

### 'Victoria Towers' - 100 Kavanagh Street, Southbank

**Units:** 261

**Building type:** High rise, 29 storeys

**Waste area type:** Indoor waste area, located on the first floor with general waste chutes available on each floor.

**Serviced by:** City of Melbourne

**Before:** Access to mixed recycling, paper & cardboard, e-waste, clothing donation, and general waste

**Improvements made:** Added signage in waste room and at chutes; added colour-coded wall paint in waste area



**Signage:** Where possible all signage has been colour-coded with the bin lids and placed on the wall above using double-sided tape. The colour of the bin lids and the signage matches the painted walls and the tape floor markings. The aim of this is to ensure the bins consistently stay in the same place in the waste area.

**Chute signage:** Each floor has chute signage which clearly outlines what can and can't go down chutes. Residents are encouraged via chute signage and digital building communications channels to use the main waste area directly as much as possible.

**Resident education:** To ensure communications reached all residents, the building manager used a digital communications platform (designed for communications management in apartment buildings) to share waste- and recycling-related updates with residents.

*After improvements to the waste room were made, correctly separated recycling increased from 9.4% to 11%. High-rise buildings with chutes tend to have high rates of turnover and disengaged residents. To continue to improve recycling rates, the next step for Victoria Towers will be to run a targeted education campaign encouraging residents to come down to the waste area to separate their recycling instead of using chutes.*



**Painted waste area:** A resident within the building painted the main waste area, as approved by the owners corporation, to assist with colour-coordinating the bin systems and to brighten up the waste space which was within the car park.

The goal was to increase awareness of the bins available in the main waste area, encouraging people to use more than just the general waste chute.

# Case Study:

## Multi-unit dwellings with outdoor waste areas

### 93 Flinders Street, Thornbury

**Units:** 10

**Building type:** Low rise, two storeys

**Waste area type:** Outdoor bin corral at the front of the property

**Serviced by:** Darebin City Council

**Before:** Access to mixed recycling, food organics & garden organics (FOGO) and general waste; no signage

**Improvements made:** Signage installed; bin area retrofitted; FOGO caddies provided to residents



**Signage:** Laminated signage has been attached to the lids of the bins using heavy-duty cloth tape. Another option for this property would be to place larger corflute signage on posts that sit above the bin corral.

**Bin placement:** The FOGO bin was placed at the entrance of the corral to ensure easy access for residents when emptying their food waste caddies. The general waste bins were strategically placed on the pavement side of the corral. The aim of this was to reduce the risk of contamination in all kinds of recycling bins from people walking by.

To ensure the bins are returned to the same place by residents, signs behind the bins have been placed on the corral wall, to act as a guide for the correct configuration of bins. The property in the future is planning on marking this out more permanently with paint as this will last longer in when exposed to the elements outdoors in comparison to cloth-tape.



**Contamination across all recycling bin types increased from 11% to 21%. To encourage correct behaviour, the next step for this building would be to install larger bin signage that clearly highlights what can and can't go in each bin. To retrofit the signage into this space it would be recommended to use signage on stakes that sit above the bins.**

### Green cone composting systems:

This building uses green cone composting systems. The bins are partially buried underground, and utilise the sun to break down the food, releasing the nutrients into the surrounding soil.

These bins were installed before the Council FOGO bins were available, however residents continue to use both the FOGO bins and the compost bins. The food waste breaks down into the surrounding soil, therefore if properly managed maintenance of the bin is minimal. However, residents are advised to use the FOGO bin if the compost bins are looking full and need time to break down the contents further.



# Case Study:

## Mixed-use multi-unit dwellings

### 'Railway Place' - 7-9 Railway Place, Fairfield

**Units:** 76

**Building type:** Medium high rise, three storeys. A cafe is located on the ground floor who also shares the waste room

**Waste area type:** Indoor waste room in the basement, with chutes

**Service type:** Private

**Before:** Access to mixed recycling and general waste; dual chutes

**Improvements made:** Sustainability Victoria signage installed to indicate residential vs commercial bins; colour-coded tape installed; mixed recycling chute closed to decrease contamination of mixed recycling



At Railway Place, the bins in the waste area are separated into residential bins and commercial tenant bins.

The cafe's bins are labelled on each lid to help to ensure residents know whose bins and whose and not to use these bins for residential waste. At Railway Place, residential waste and the cafe's waste is collected by different contractors and the fees are managed separately by the tenants.

The facilities manager at the property monitors the bins to ensure no overflow waste from the cafe is impacting on the residential waste and recycling bin types.

#### After installing Sustainability Victoria signage at this building, the data shows:

Following the addition of new signage the building increased their waste diverted from landfill from 9% to 26%. This was also assisted by the building manager closing access to the mixed recycling chute, to encourage residents to physically go down to the waste room to dispose of their recycling effectively. Next steps for this building would be to add another recycling bin option such as food & garden organics to continue diverting waste from landfill.

### Q: In what ways can businesses and residents share a bin area?

#### Shared bins:

- Ensure the bin types, sizes and collection frequencies are sufficient to meet the needs of both the business and residential waste - e.g. for a cafe sharing bins with residents, extra/bigger food waste bins may be needed
- Monitor whether the waste output varies significantly throughout the year. For example, does waste output increase during festive seasons? How does this affect the waste area?

#### Separate bins & collections:

- If the residential bins are overflowing, monitor the waste to make sure they are not being used by the business/s.
- Have clear signage on bins to state whether they are residential or commercial. If the bins are commercial, it should clearly state which tenant is responsible.
- Keep the residential bins together and separate from the commercial bins so there is a clear segregation.



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Contamination in mixed recycling decreased significantly, from 33% to 4%. This shows residents have a better understanding of what materials go in what bins.

#### In the future this building is considering adding additional recycling options alongside their kerbside service. Here are their next steps:

They can start by checking online to see if their local Council has any drop-off points for additional recycling (eg. e-waste or cardboard). Alternatively they can still contract a private waste collector for any additional recycling bin types they would like collected directly. This process is outlined further in the ['How to: install a new recycling bin type to your building'](#) guide.

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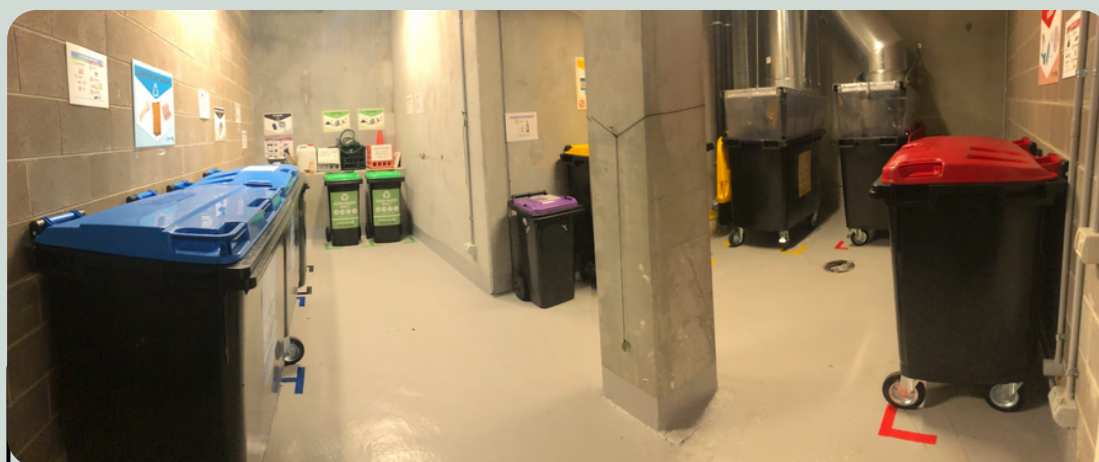
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