



# Recycling hospital food waste

## Department of Health and Human Services

### Finding a food waste cure

#### Why?

Food waste makes up 35 per cent of the 2.8 million tonnes of waste entering Melbourne's landfills annually – and hospitals and aged care facilities are a contributor.

An analysis of audit data by the Department of Health and Human Services in 2015 estimated that an average of 200 grams of food waste was generated per bed day. This was primarily from returned plates and could result in up to 1,800 tonnes of food waste per annum across Victoria's public hospitals and aged care homes.

The Department of Health and Human Services sought assistance from the Victorian Government's Metropolitan Organics Strategy Fund (Organics Fund) to respond to the issue by testing on-site organics recycling at a health precinct, supporting by a practical guide.

The co-location of numerous health providers in the Parkville health precinct, some of which share waste management services, provided the opportunity for a precinct-wide approach. The project aimed to:

- divert up to 350 tonnes of organics waste annually
- consolidate guidance regarding on-site processing
- develop templates for implementing on-site processing
- investigate appropriate end markets for the product.

#### How?

The project had two concurrently run components:

- the Melbourne Health-led procurement of an organics solution for the Parkville health precinct
- the Department of Health and Human Services-led development of a guide on organics recycling for small to medium food service organisations.

Melbourne Health partnered with the Walter & Eliza Hall Institute and Zouki (Royal Melbourne Hospital's retail caterer).

Following a competitive tender process a Gaia-GC-1200 dehydrator was installed at the Royal Melbourne Hospital to process organic waste, including the later installation of gas flues and odour control, at a significant additional cost.

Due to the varying processes in place at the participating facilities, staff engagement was adapted





to meet individual site needs. Education included face-to-face training, posters and checklists.

The Department of Health and Human Services worked with the City of Melbourne, Sustainability Victoria and EPA Victoria to assess the scope of guidance required for small to medium food service organisations and contracted a specialist waste consultancy to develop the guide. The project at the Royal Melbourne Hospital provided important lessons that were reflected in the guide.

### What was the result?

Available data suggests organics recycling at the Parkville precinct could result in up to 310 tonnes of organics diverted from landfill annually. Operational savings are estimated at close to \$100,000 per year, depending on how often the dehydrator runs, and should lead to a three to four year return on investment. A significant cost saving was a reduction in trade waste costs following the decommissioning of insinkerators across the Royal Melbourne Hospital.

A key insight gained was organics units must be carefully located in respect to access, exhausting of emissions, services and odour. It was also found that more time than originally estimated was necessary to weigh, load and unload the machine. It is likely, however, this time will reduce as the process becomes more familiar.

It was discovered that biodegradable bin-liners contaminated the end product and therefore could not be used. Compostable bin-liners are key to successful organics recycling.

Regarding the precinct-based approach, the Department of Health and Human Services learnt that sufficient time needed to be allowed to engage with partners, and an understanding of waste management and food service models was a key influence on the ability to segregate organic waste.

The Department of Health and Human Services prepared Victorian food organics recycling: a guide for small-medium food services organisations and

an accompanying food waste calculator to assist organisations to better understand opportunities for organics recycling. While health service providers are the guide's target audience, it is applicable to other small to medium sized food services organisations such as cafés, restaurants, hotels and supermarkets.

The guide is available [free online](#) and covers:

- benefits of recycling organics
- the types of recyclable organics
- costs and benefits
- types of available recycling technologies and processes
- tips for successful projects.

The Department of Health and Human Services' project shows organics recycling can be viable for small to medium enterprises and, with the help of the guide, should be investigated prior to entering into any new, or varying existing, waste management contracts.

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