

Better practice FOGO kerbside collection guidelines

Better practice guidelines for three-bin
food organics garden organics (FOGO) services





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Statutory context

The Waste Authority is charged with promoting better waste management practices in Western Australia under the *Waste Avoidance and Resources Recovery Act 2007*. One of the Authority's functions under the Act is to draft, for the Minister for Environment's approval, a long term waste strategy for the whole of the State for continuous improvement of waste services, waste avoidance and resource recovery, benchmarked against best practice and targets for waste reduction, resource recovery and the diversion of waste from landfill disposal. The *Waste Avoidance And Resource Recovery Strategy 2030* was released on 10 February 2019. The Waste Authority publishes position statements from time to time. Position statements formalise the views of the Waste Authority and may be used to inform decisions relevant to the Waste Authority's role in implementing the strategy.





Using these guidelines



These guidelines provide details about better practice three-bin kerbside collection services which include a separate service for food organics and garden organics (FOGO).

The guidelines apply to typical single-unit dwellings which comprise the vast majority of Western Australia's housing stock (over 85 per cent of housing stock in most local governments in the Perth and Peel regions).

The guidelines are informed by high performing systems and performance in local governments in Western Australia and elsewhere.

The Waste Authority encourages services described in these guidelines as the 'standard service' provided by local governments. A 'standard service' is described as the main service provided by the local government to households. Local governments seeking to access funding under the Better Bins Plus: Go FOGO program should implement kerbside services consistent with these guidelines.

However, better practice recognises that services may need to vary from the standard service to accommodate particular household configurations or individual circumstances, such as households with special needs.

If a local government wishes to access funding for services which vary from the standard service as described in these guidelines, the local government should describe to the Waste Authority, how the proposed variations accommodate particular household configurations or individual circumstances.

Please note: Details of the funding program are in the [Better Bins Plus: Go FOGO – Funding guidelines](#).



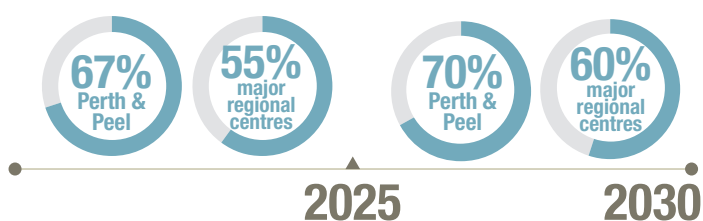


Background

The *Waste Avoidance and Resource Recovery Strategy 2030* (Waste Strategy) aims to move Western Australia to a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. The strategy contains objectives to **avoid** waste, **recover** more value and resources from waste, and **protect** the environment from the impacts of waste, supported by ambitious though achievable targets.

The Waste Strategy's material recovery targets for municipal solid waste are:

- 2025: 67 per cent in the Perth and Peel regions; 55 per cent in major regional centres
- 2030: 70 per cent in the Perth and Peel regions; 60 per cent in major regional centres



These targets support the state's overall material recovery targets of 70 per cent by 2025 and 75 per cent by 2030.

The Waste Strategy identifies organics – including food organics and garden organics (FOGO) – as a focus of actions and measurement. It is important to increase the recovery of organic materials in order to achieve the state's recovery targets.

'Better practice' is one of the principles in the Waste Strategy. The strategy commits to developing better practice guidelines to inform

stakeholders, such as waste managers and local governments, about preferred systems to achieve the Waste Strategy targets. Source separation is considered better practice and is critical to achieving high recovery rates. Source separation produces a more homogenous and higher quality waste stream which is less contaminated by other materials, and easier and less costly for recyclers to recover. The Waste Authority's [position statement](#) on source separation provides more information on source separation and its benefits.

The Waste Authority recognises three-bin kerbside services which collect FOGO as better practice. A three-bin service that includes FOGO can achieve recovery rates of around 65 per cent, or higher if residual waste undergoes further treatment for recovery. The Waste Authority's position statement on FOGO collection systems confirms the Waste Authority's support for FOGO collection systems provided by local governments to households.

To encourage better practice kerbside collection services, the Waste Strategy includes a headline strategy to provide a consistent three-bin kerbside collection system, which includes separation of food organics and garden organics from other waste categories, by all local governments in the Perth and Peel regions by 2025. The headline strategy is supported by State Government through a revised Better Bins program called Better Bins Plus: Go FOGO.

Local governments that provide services consistent with these guidelines are able to demonstrate that better practice approaches to source separation have been applied in the delivery of kerbside services and are therefore able to claim any residual waste as being suitable for other management options such as waste to energy.



Mobile garbage bins



A better practice three-bin FOGO system consists of a general waste service, co-mingled recycling service and FOGO service.

A better practice kerbside collection system which includes source-separated FOGO incorporates the following mobile garbage bin collection services:

- **General waste:**
preference – 140 litres per fortnight
- **Co-mingled recycling:**
no less than 240 litres per fortnight
- **FOGO:** preference – 240 litres per week

High performing systems provide two collection services each week, consisting of:

- a weekly FOGO service
- a rotating fortnightly general waste service/co-mingled recycling service.

The collection volume for each service is important to maximising recovery and minimising general waste. A high performing service should maximise the recycling capacity (co-mingled and FOGO) as a proportion of total collection capacity, and minimise the proportion of capacity available for general waste. The collection capacity for each service can be managed by the bin size and/or the collection frequency.

Bin lid colours are from Standards Australia's publication [AS 4123.7-2006 \(R2017\) Mobile waste containers - Colours, markings, and designation requirements](#).

Table 1 provides details of a standard service provided to households.

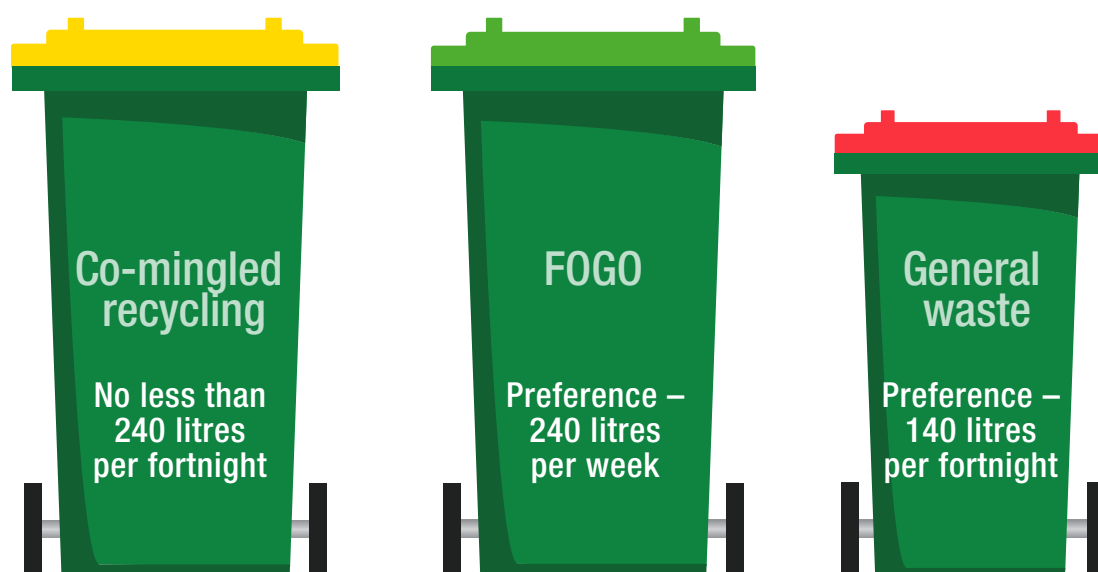
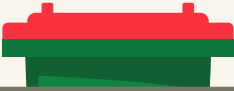






Table 1: Standard three-bin FOGO services

	  		
	Bin types		
	Residual / General waste Red lid	Co-mingled recycling Yellow lid	FOGO Lime Green lid
Bin volume: collection frequency	80, 120 or 140 litres: Fortnightly collection	240 or 360 litres: Fortnightly collection	240 litres: Weekly collection
Equivalent collection volume per week	Maximum 70 litres	Minimum 120 litres	Minimum 240 litres
Material	Wastes that are not hazardous and should not go in other kerbside bins, such as general rubbish items, nappies and hygiene products, plastics that are not accepted for recycling.	<p>Packaging, including plastic bottles and containers, aluminum and steel cans, glass bottles and jars.</p> <p>Paper and cardboard, including newspaper, office paper, envelopes and paper bags, packaging/cardboard boxes.</p> <p><i>Specific details of materials accepted by service providers may be available through the Consistent Communications Collective.</i></p>	<p>Garden organics, such as grass clippings, plant cuttings and fallen leaves. Food organics, such as vegetable and fruit scraps, meat and dairy scraps and eggshells. Other suitable organics such as used kitchen paper hand towels.</p> <p><i>Specific details of materials accepted by service providers may be available through the Consistent Communications Collective.</i></p>
Anticipated yield	N/A	5kg/hh/week or more	9kg/hh/week or more
Contamination	Local governments to determine the types of waste which should not be collected.	5% or less (Combined contamination rate of materials delivered to a material recovery facility.)	3% or less
Notes	Reducing general capacity encourages householders to separate materials for recovery.	<p>Fortnightly recycling collections are standard across high performing local governments.</p> <p>Local governments should confirm the specific details of the materials accepted with the service provider.</p> <p>Local governments may increase the co-mingled recycling capacity by providing a weekly service, or by providing a second bin/larger bin.</p>	<p>Weekly food organics and garden organics (FOGO) collections are standard across high performing local governments.</p> <p>Local governments should confirm the specific materials accepted for collection with the service provider.</p>

Notes:

- Yield and contamination parameters are for guidance only and are not requirements for Better Bins Plus: GO FOGO funding.
- The Western Australian Local Government Association (WALGA) established the Consistent Communications Collective to provide up-to-date information on materials that can be accepted through recycling systems and to support consistent communications across local governments.



Kitchen caddies and liners



A better practice three-bin FOGO system provides kitchen caddies and compostable liners to households.

Kitchen caddies and compostable liners are an important part of a better practice FOGO service. Kitchen caddies and liners help to:

- increase community acceptance of a FOGO service
- encourage participation
- reduce contamination
- maintain yields.

Kitchen caddies with capacities from 5 to 8 litres are typically used to store food waste prior to it being deposited in a household's FOGO bin.

Kitchen caddy liners should meet the Australian Standard [*AS 4736-2006 Biodegradable plastics suitable for composting and other microbial treatment*](#). Liners that meet these standards are typically resistant to biological degradation for several days after contact with food waste. As such, they are suitable for use in the kitchen prior to biodegrading.

Organic processors typically require caddy liners to meet AS 4736-2006, so they will biodegrade completely under commercial organics processing conditions.

Kitchen asset and consumables

Kitchen caddies	5 to 8 litres
Kitchen caddy liners	AS 4736-2006

Local governments should also consider the following:

- Kitchen caddies should be convenient for households to use. Convenient features include a wide opening for easy disposal of food waste, a hinged lid and a carry handle.
- Kitchen caddies should include labelling to communicate the materials that can and cannot be accepted.
- Kitchen caddy liners should fit the kitchen caddy.
- Kitchen caddy liners should be available for purchase.





Complementary measures



A better practice three-bin FOGO system should be supported by complementary measures, documented in a plan, to support the effective implementation of the kerbside service.

An effective complementary measures plan should support local governments in communicating services to residents, monitoring the performance of services, and responding to any issues preventing the achievement of better practice performance (such as low recovery or high contamination).

Complementary measures refer to a range of actions to support the effective implementation of a kerbside collection service. Complementary measures include communications with households, monitoring and evaluation, and responding to issues to improve performance.

These actions are important to support correct recycling and disposal behaviours, and manage the performance of the system.





Communications: Waste Sorted



Local governments should adopt communications and education messaging using the WasteSorted communications toolkit or consistent with its intent, and tailor its communications and engagement actions to meet the needs of the community. Local governments should also provide training to frontline staff on the kerbside system and its benefits.

The Waste Strategy identifies the importance of consistent state-wide communications to support appropriate disposal behaviours.

The WasteSorted toolkit helps local governments communicate their waste and recycling services to residents. The toolkit supports consistent and effective communications across local governments.

The WasteSorted toolkit provides a range of templates including media, website, social media images and videos, community displays, banners, a waste calendar, magnets and more. The WasteSorted toolkit is available at www.wastesorted.wa.gov.au.

In addition, key considerations in communicating with the community include:

- clearly explaining the system – why, when, how it is being implemented – including the materials which can go in each kerbside bin; collection frequencies; and the materials that should be disposed of via other services
- communicating how the system will be monitored and evaluated
- ensuring consistent messaging across all communications platforms (written materials, websites)
- developing targeted messaging for sections of the community that may require additional support – for example, culturally and linguistically diverse (CALD) communities, and sections of the community with poor recycling behaviours
- creating communications which align with overarching messaging on waste and recycling – for example, communications which support waste avoidance messaging, reuse messaging (such as reuse shops), and other waste and recycling services provided by local governments or other service providers.

Local government staff, including front line staff and elected representatives, should understand the kerbside system, including its benefits and how to use it effectively. Local governments should provide training for staff to support community education and engagement efforts.



Monitoring and evaluation



Local governments should have measures in place which monitor and evaluate the performance of the kerbside system.

Monitoring and evaluation is critical to understanding how a service is performing and to inform any corrective actions. Methods typically used to monitor the performance of the service include:

- bin inspections/tagging – to monitor household disposal behaviours
- waste auditing – to identify the composition and volume of materials
- in-vehicle cameras – to capture bin contents and GPS location data gathered to support community engagement and compliance
- ‘driver’ alerts to local governments – to advise when a bin is heavily contaminated
- community surveys – to understand community perceptions and behaviours.

Response measures



Local governments should have measures in place which respond to performance issues such as low recovery or high contamination rates.

A local government should document the types of actions it will pursue in response to performance issues, such as low recovery or high contamination rates, identified in the monitoring and evaluation process. Methods typically used to support improved performance of the service include:

- targeted feedback to households or regions in a local government area
- bin tagging – to provide feedback to households
- warning letters or face-to-face engagement for areas or individual households contaminating the services
- removal of service in instances of regular and consistent non-compliance with a service.



Supporting recycling markets



A better practice three-bin FOGO system should support recycling markets. Strategies include managing contamination, engaging with preferred service providers and procuring/using recycled products.

A high performing kerbside collection system aims to collect source separated streams of recyclable materials (both co-mingled and FOGO) that are low in contamination. Low contamination rates increase the value of recycling streams and support end markets for recyclable materials.

Local governments can help to support markets for recyclable materials by managing contamination and engaging with better practice service providers. Local governments can play a particularly important market development role in relation to FOGO by procuring FOGO-derived products for use in a local government area.

Contamination management



Local governments should ensure that systems are in place to measure and manage contamination.

Contamination management helps to generate a high-quality feedstock to recyclers and composters which in turn enables the production of high-quality outputs. Better practice kerbside collection systems include mechanisms to manage and reduce contamination.

The complementary measures set out in these guidelines describe actions which should be applied to a kerbside service to manage contamination consistent with the better practice rates in Table 1.





Engagement with service providers



Local governments should engage with service providers with a demonstrated capacity to manage materials collected for recycling. Local governments should ensure that FOGO service providers can consistently produce high quality FOGO-derived products.

Engaging service providers with a demonstrated capacity to manage materials collected for recycling provides confidence to both local governments and the market place.

In relation to FOGO, it is particularly important that service providers can consistently produce high-quality FOGO-derived products to provide confidence to purchasers and users of these products and ensure sustainable markets.

Local governments can support end markets for FOGO-derived products by working with service providers that can demonstrate consistent manufacture of products which meet standards demanded by the market. There are a number of standards which exist for a range of different applications (or end uses), such as Australian Standard [*AS 4454 Composts, soil conditioners and mulches*](#), which specify the characteristics of products suitable for unrestricted use. Meeting appropriate standards is critical to supporting markets for FOGO-derived products.

Procurement and use of FOGO-derived products



Local governments should commit to using FOGO-derived products in their local government area with reference to opportunities identified through the work of the FOGO Reference Group.

Local governments can play an important role in supporting markets for FOGO derived products through procurement. Local governments can use FOGO-derived products in 'green spaces' such as parks, gardens and sporting fields, and can also provide FOGO-derived products to residents.

The Waste Authority has established a FOGO Reference Group to support the rollout of FOGO services. The reference group may quantify the number of FOGO-derived products available for use by local governments in 'green spaces'.

Local governments should demonstrate commitments to use FOGO-derived products with reference to opportunities identified through the work of the FOGO Reference Group.



Optimising rollout

These guidelines apply to standard single-unit dwellings which comprise the vast majority of Western Australia's housing stock. Local governments are encouraged to provide services described in these guidelines, as the predominant service to all standard single-unit dwellings.

Some local governments may have particular circumstances or housing characteristics which may prevent a full rollout of three-bin FOGO services (such as multi-unit dwellings with shared services). Local governments should consider services to properties which maximise source separation and align with key recycling messages being promoted by the Waste Authority and the WasteSorted toolkit.



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