

# Better practice FOGO services

A step-by-step guide for planning and implementing better practice food organics and garden organics collection services.





## Acknowledgments

This document is based on initial work prepared by MRA Consulting Group. The Waste Authority acknowledges the Western Australian Local Government Association for developing the guide in consultation with its members. The Waste Authority would also like to acknowledge the FOGO Reference Group for its input into the guide.

This step-by-step guide is intended to identify key steps for practitioners to consider when planning and implementing FOGO services. It is produced by practitioners for their peers and is not intended to convey the Waste Authority's policy position relating to better practice waste management services.

Better practice guidance on waste services is available on the Waste Authority website and elsewhere. The Waste Authority will continue to develop better practice guidance as part of its ongoing commitments to support the *Waste Avoidance and Resource Recovery Strategy 2030*.

Users should refer to relevant materials, including better practice guidance, when using this guide.

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# Introduction

Western Australia's *Waste Avoidance and Resource Recovery Strategy 2030* (waste strategy) has objectives to avoid waste, recover more value and resources from waste, and protect the environment. It sets a target to increase material recovery to 75 per cent by 2030 and identifies organics, including food organics and garden organics (FOGO), as a focus material. This is because of the amount generated and opportunities to produce valuable recycled organic products such as compost, while minimising the impacts of disposal.

<b>Avoid</b> <i>Western Australians generate less waste.</i>	<b>Recover</b> <i>Western Australians recover more value and resources from waste.</i>	<b>Protect</b> <i>Western Australians protect the environment by managing waste responsibly.</i>
<ul style="list-style-type: none"><li>2025 – 10% reduction in waste generation per capita</li><li>2030 – 20% reduction in waste generation per capita</li></ul>	<ul style="list-style-type: none"><li>2025 – Increase material recovery to 70%</li><li>2030 – Increase material recovery to 75%</li><li>From 2020 – Recover energy only from residual waste</li></ul>	<ul style="list-style-type: none"><li>2030 – No more than 15% of waste generated in Perth and Peel regions is landfilled.</li><li>2030 – All waste is managed and/or disposed to better practice facilities</li></ul>

Table 1: Waste strategy objectives and state targets

The waste strategy commits to pursuing better practice approaches to waste management, including a headline strategy to introduce three-bin FOGO collection in Perth and Peel local governments by 2025. The Waste Authority's *Better practice FOGO kerbside collection guidelines* describe better practice three bin kerbside collection services, including mobile garbage bins, kitchen caddies and liners, complementary measures and actions to support markets for FOGO-derived materials.

The Waste Authority has established a FOGO Reference Group to support the FOGO rollout. The Waste Authority's annual FOGO rollout plans, developed with the Reference Group, have actions to support the transition to FOGO services. The *FOGO rollout plan 2021–22* includes an action to produce a step-by-step guide (planning, implementation, monitoring) to support better practice FOGO services.

This step-by-step guide (the guide) identifies the key components required for a successful transition and aligns with the waste strategy and *Better practice FOGO kerbside collection guidelines*. The guide provides a high-level overview which sets out the elements to consider at each step of FOGO implementation. The guide mainly relates to single-unit dwellings (SUDs) – which are the focus of the *Better practice FOGO kerbside collection guidelines* – however some of the guidance is also relevant to multi-dwelling developments (MDDs).

The guide refers to examples and experiences from local governments in Western Australia that have implemented FOGO. It outlines the key components to consider when transitioning to a three-bin FOGO kerbside system.

## How to use this guide

This guide describes the general actions that local government officers may pursue when planning and implementing FOGO services. Officers are encouraged to use this document for general information and guidance, noting that a range of detailed reference material – such as case studies, reports and further guidance – is available elsewhere. The Waste Authority will aim to publish (or provide links to) other reference material on a 'resources hub' on our website to support the information in this guide.

Some of the steps in this guide may already have been undertaken on behalf of a local government; for example, by a regional council. Officers working for individual local governments are best-placed to determine which actions are relevant to their circumstances.



# Step 1 Understand the existing kerbside system

## Aim: Understand existing waste streams

You should identify the composition of materials in your existing kerbside service. Clear knowledge of the material composition and contamination rates will help inform the design of your new service.

## Approach for local government officers

Specific waste stream audits can be useful to compare behaviour and performance when you introduce a new service and/or you are piloting alternative collection arrangements. Before introducing FOGO, we recommend you obtain baseline data by identifying:

- the total amount of waste produced
- the type and tonnage of organics currently in the residual waste stream.

You might also use aggregated data from previous years' audits to indicate the community's waste profile rather than undertake a new 'snapshot' audit.

You should also conduct seasonal waste audits of the general waste, co-mingled recycling and garden organics bins to provide baseline data, as the amount of food and garden organics will vary – especially in holiday periods and during high-growth periods (such as in spring) or during low-growth periods (such as in summer). Seasonal audits will help ensure you identify the total amount of material being generated; you risk over/underestimating waste generation if you only do one-off audits.

However, you may be from a local government where it is unrealistic to conduct seasonal audits due to financial constraints. In these instances, we advise you to liaise with other local governments who have carried out seasonal audits to obtain feedback on the material composition of each waste stream. This may also help you determine ranges in the average weight of organics in the residual waste stream. You may find it more beneficial to audit post-rollout of FOGO services than conduct a seasonal audit.







## Step 2 Waste Authority grant funding

### Aim: Access grant funding

The Better Bins Plus: Go FOGO program provides funding to local governments that deliver kerbside services consistent with the Waste Authority's *Better practice FOGO kerbside collection guidelines*. Local governments should access funding from the Better Bins Plus program to help with the cost of delivering a three-bin collection service.

### Approach for local government officers

Better Bins Plus: Go FOGO is a non-competitive grants program available to all Western Australian local governments. Payments are made to local governments on a per household basis.

You must apply by 31 March in each year of the program for payments to be considered for the following financial year.

Under Better Bins Plus: Go FOGO, the program develops a funding agreement with your local government for the duration of its Better Bins Plus commitments. The funding agreement includes details such as the number of households scheduled to receive three-bin FOGO services in each financial year, and commitments to deliver complementary measures to support the service.

Your local government may opt to carry out due diligence and get a legal review on the funding agreement before sign-off.

### Further information

You should review the *Better Bins Plus: Go FOGO – funding guidelines* and the *Better practice FOGO kerbside collection guidelines* at [www.wasteauthority.wa.gov.au](http://www.wasteauthority.wa.gov.au). Go to section 3 of the funding guidelines to find details of the application, claims and payment process.

You are encouraged to discuss the program with the Better Bins Plus Program Manager.





## Step 3 Pilot program

### Aim: Identify need to undertake a pilot program

Consider a pilot to identify issues which may inform the design of a full rollout of FOGO services.

You should note that FOGO services have been piloted and delivered across many local government areas. You are encouraged to research the experiences in those areas and draw on relevant learnings.

You may consider running a pilot in your local government area to identify issues in your community, such as:

- community views, attitudes and key issues
- service requirements in particular areas or household types
- effectiveness of engagement and education strategies
- FOGO generation rates and contamination rates
- contamination management strategies
- participation rates
- collection and processing arrangements
- quality of FOGO products and suitability for end markets
- costs, challenges and logistics
- what works and what doesn't work
- potential 'waste champions' and resident testimonials.

### Approach for local government officers

- Determine whether a pilot is required and, if so, confirm the aims of the pilot.
- Determine duration of pilot (weeks or months).
- Select suburbs or streets which represent a range of households in your local government area (or are relevant to the aims of the pilot).
- Carry out surveys of participants before and after the pilot to understand community views and experiences with managing FOGO waste generated at home.
- Give participating households a kitchen caddy, bin liner and a 240-litre lime-green lidded mobile garbage bin (MGB) with information on how to use the system and collection schedules.
- Provide ongoing communications and community education throughout the pilot.
- Identify key performance indicators (KPIs) to evaluate the pilot such as tonnage (%) of waste diverted from landfill, tonnage (%) contamination in FOGO, residual and co-mingled recycling bin and community acceptance and satisfaction.





## Step 3 Pilot program continued

### Further information

#### **EMRC: Town of Bassendean and City of Bayswater**

Some local governments are members of a regional council which may have undertaken a pilot program on their behalf. In August 2020 the Eastern Metropolitan Regional Council (EMRC) launched a pilot for the region with the Town of Bassendean, one of the EMRC's five member councils, to process the Town's FOGO waste. In March 2021 FOGO was rolled out in the City of Bayswater, which was also included in the pilot. During the pilot, FOGO waste collected from residents in both council areas was processed at EMRC's interim FOGO facility at its Red Hill site. The pilot helped EMRC develop insights, technical expertise and a FOGO waste education communication strategy and rollout logistics to help its members with the implementation of FOGO. This pilot for the region also enabled the EMRC to prove its capacity to process FOGO and start market development trials with the final products, in anticipation of the entire region moving towards a permanent processing facility by the end of 2023.

#### **Resource Recovery Group (formerly SMRC) and City of Melville**

In October 2017 the City of Melville, in partnership with the Resource Recovery Group (RRG) (formerly the Southern Metropolitan Regional Council (SMRC)), on behalf of the three SMRC local governments (Melville, Fremantle and East Fremantle) piloted a FOGO service to about 7,000 households across five areas. The participating suburbs were selected on the basis of them being representative of all three local government areas. Residents received a brand-new 240-litre lime-green lidded bin for FOGO material, along with a kitchen caddy to help them separate food waste in the kitchen. The kitchen caddy contained educational materials for the residents, along with a year's supply of compostable liners to line the caddy with. Residents also received a brand-new smaller red-lidded 140-litre bin for general waste items that can't be composted or recycled. The red bin was collected fortnightly.

In the first six months of the project, 66.5% of all household waste generated from the pilot areas was recovered as compost or recycled into new products. Residents were also asked to recommend improvements to the system, with between 10 and 22% of respondents putting forward ideas about the size and collection frequency of the red and yellow bins, odour management and sourcing more robust compostable caddy liners.

#### **City of Albany**

In 2018, the City of Albany conducted an eight-week FOGO pilot in five city streets. The city already had a garden organics bin and residents in the pilot area were instructed to place FOGO waste in that bin. Approximately 20 tonnes of FOGO waste was collected during the pilot. Surveys following the FOGO pilot found that 95% of participant households supported the introduction of a full FOGO service. Surveys of the general population showed that 68% of Albany residents were motivated by the idea of diverting food waste from landfill to a composting facility.

#### **City of Greater Geraldton**

In March 2020 the City of Greater Geraldton carried out a FOGO pilot involving 500 households over a 12-month period. The city has a general waste bin only as the standard service. Households were randomly selected to ensure the pilot program provided realistic data on residents' behaviour and uptake of the program. This gave the city a better understanding of the education requirements and level of contamination the pilot program would generate to help determine if a full rollout was feasible. In the first three months of the pilot, 53 tonnes of FOGO waste was collected, with 11% contamination rates. A survey of the participants showed more than 75% of respondents supported the introduction of a city-wide FOGO kerbside collection service.



## Step 4 Business case

### Aim: Understand the costs/benefits of a FOGO service

The introduction of a FOGO service represents a significant change for some local governments. Local governments may prepare a business case to identify the costs and benefits of various options (normally compared with a 'business as usual' scenario) and the preferred options for the community, the environment and the local government's long-term sustainability.

### Approach for local government officers

You should consider the scope of a business case and the options for assessment. The Waste Authority advises you to include a service option that follows the *Better practice FOGO kerbside collection guidelines* in order to secure funding from the Better Bins Plus: Go FOGO program and ensure alignment with the waste strategy.

The Waste Authority also encourages you to draw on data from an independent report undertaken on our behalf, entitled *Impacts and benefits of kerbside collection systems: Perth and Peel*. The report assesses various kerbside services including system costs, recovery rate and greenhouse gas emissions (GHGs) to support local governments with decision-making. You may also wish to include other considerations in a business case, such as service delivery options (including collection and processing), staffing, impact on other services (such as vergeside or drop off), community engagement, and options for using FOGO-derived products in the community.

The business case should include:

#### Compliance with *Better practice FOGO kerbside collection guidelines*

- MGB types, sizes and collection frequencies.
- Lid colour standardisation (red: residual waste, yellow: co-mingled recycling, lime green: organics).
- Provision of kitchen caddy and liners.
- Complementary measures to support the effective implementation of the kerbside service (including communications with households, monitoring and evaluation, and responding to issues to improve performance).

#### Specific local government information

- An overview of current kerbside services (two-bin or three-bin GO), current landfill diversion rates and co-mingled recycling rates. Assessment of the extent to which the service contributes to the material recovery targets in the waste strategy.
- Industry research and analysis from other local governments who currently operate or are transitioning to a FOGO service.
- Inclusion of the community's opinion (if you undertook a local government community survey).
- Stakeholder engagement – internal and external stakeholders.
- Risks and Implementation issues (e.g. storage required for the new extra bins, perception of reduced bin volume, nuisance issues – nappies, vermin, pests, resistance to FOGO service, high contamination rates, cultural and language barriers, contractual issues, global pandemic).
- Collection frequency and service changes – general waste collection change from weekly to fortnightly; potential co-mingled recycling collection frequency. This is particularly relevant for local governments that have a high density of MDDs with multiple weekly collection frequencies for each waste stream).
- Consider the impact to changes to commercial services (if your local government provides these) and public litter bins.
- Community engagement/marketing/advertising associated with changes to services.
- Staff recruitment – number required, length of contract and associated costs.
- Dwelling types, demographics and forecast growth in your local government area (impact on future servicing requirements).
- Markets for compost.





## Step 4 Business case continued

The financial model should include:

### Transitional costs

- Option for swapping out plastic dog poo bags with compostable bags.
- FOGO processing cost.
- GO to FOGO processing cost.
- Current landfill disposal cost.
- Modelling for future landfill disposal and WARR Levy increases.
- Financial liability risk of exiting local government waste agreements.
- Capital costs for purchase of MGBs, caddies, liners, lid exchanges.
- Operational costs (additional staff, communication/education costs).
- Waste Authority funding.

### Ongoing costs

- Costs for ongoing supply of caddies.
- Costs for compostable liners (initial rollout and ongoing costs).
- Future landfill disposal and WARR Levy increases.
- Increase in processing costs in contractual agreements.

### Further information

See the *Impacts and benefits of kerbside collection systems: Perth and Peel* report for the following information to use in your business case:

- Total system costs presented as:
  - cost per household (\$/household/annum)
  - cost per tonne recovered (\$/tonne)
  - NPV per household (\$) across a 10-year planning horizon.
- Material recovery rate (%).
- Landfill diversion rate (%).
- Greenhouse gas emissions (t CO<sub>2</sub> -e).
- Vehicle kilometres travelled (km/annum on a per household basis).





## Step 5 Risks and implementation issues

**Aim:** For local governments to identify and develop mitigation strategies for risks and implementation issues.

### Approach for local government officers

You should consider the following circumstances that may negatively affect your FOGO collection service:

- inadequate/incomplete waste data (e.g. number of rateable properties, number of incompatible MGBs, waste audit data, percentage food organics versus garden organics)
- inadequate project management
- poor communication
- DWER regulatory approval timelines for new and existing facilities, particularly if licence amendments are required (e.g. for transfer stations)
- mismanaged rollout of service
- uninformed media attention
- difficult properties to service
- householders not participating and resistance to new system
- contamination in all three waste streams
- function of existing GO to FOGO bin – some GO MGBs have an insert within the bin that requires removal
- turnover of tenants in MDDs (increase in education and replacement caddy costs)
- election of new councillors may lead to a loss in decision-making continuity
- increase in processing costs when nominated processing facility is unavailable
- nuisance factors (vermin, pests, malodours)
- perceived impact of home composting
- contractual issues
- cost overruns
- lack of demand for generated products.

Although we identify methods to mitigate these risks in this guide, you may need to consider specific additional risks for your local government.

## Step 6 Council approval timeline

### Aim: Ensure adequate time is allocated for council approvals

The process and timing for securing council approvals may vary considerably between local governments. You should include sufficient time for local government approvals when planning a transition to FOGO services.

### Approach for local government officers

Depending on staff resources, the development and collation of a business case and financial model requires dedicated resources. You should try to allocate up to six months for internal reviews and financial analysis. There should be an opportunity for councillors to ask more detailed questions at council forum and council briefing sessions and/or workshops. You should engage with councillors at the start of the FOGO journey to ensure they are fully aware and informed before the business case goes to a council meeting for final endorsement. You should build contingencies into the timeline, including:

- council elections
- annual leave for staff
- no council meetings December/January
- inability to procure goods and services due to contractor commitments or inadequate market availability for FOGO processor.



## Step 7 Communications plan

### Aim: Develop a comprehensive communications plan that covers all stages of implementation (pre, during and post)

Effective communications and engagement are critical to supporting high-performing FOGO services. Successful local governments develop a communications plan that supports all stages of the services – from planning to implementation and then evaluation.

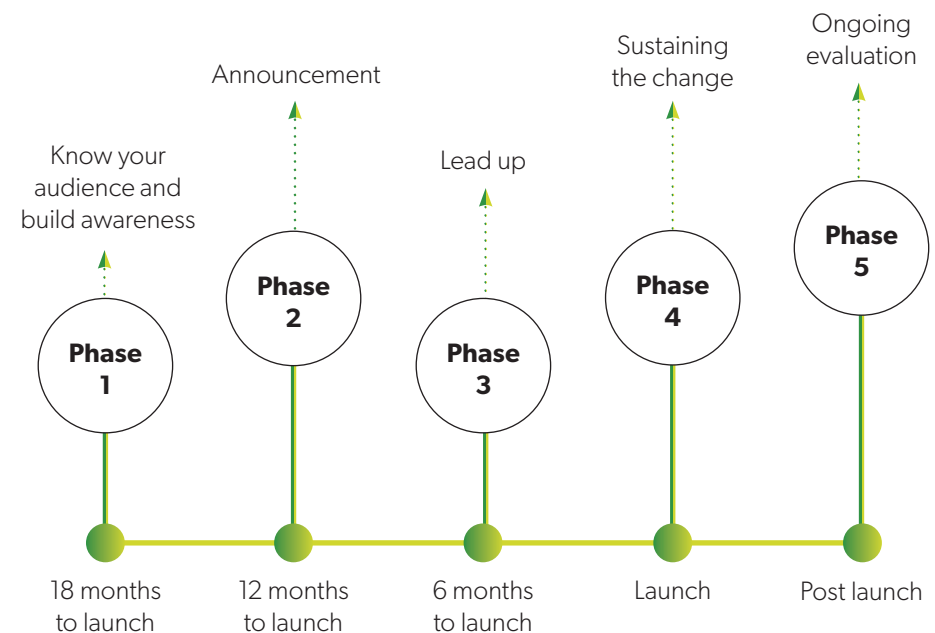
The Waste Authority's [WasteSorted toolkit](#) contains resources for local governments to communicate with their residents about the importance of separating their waste and sorting it correctly to reduce contamination in their kerbside bin services. The WasteSorted toolkit includes a specific FOGO toolkit. We strongly encourage you to use this toolkit as it supports consistent messaging throughout Western Australia. Many local governments find the WasteSorted toolkit helpful in rolling out services as it has an excellent range of resources.

### Approach for local government officers

You should prepare the communications plan well in advance of service implementation to allow for the coordination and training of staff and preparation of education materials. Ideally your media campaign should also start well before the service is introduced. The plan should cover the following:

- Phase 1: Know your audience and build awareness
- Phase 2: Announcement of the service launch
- Phase 3: Lead-up and launch of service
- Phase 4: Immediately post launch
- Phase 5: Post FOGO service launch and ongoing evaluation.

Each stage of the process has specific tactics and resource requirements which are outlined in the following sections.



Source: MWRRG (2018), [Introducing a kerbside food and garden organics collection service: A guide for local government](#).



## Phase 1

### Know your audience and build awareness – We've got a better bin system sorted

This phase starts 18 months before the launch. Improving community understanding about what should and should not go in the FOGO bin is particularly important if you are introducing food organics to an existing garden organics bin service. In the lead up, you can also educate residents to reduce food waste.

Strategy	Key messages	Tactics
<ul style="list-style-type: none"> <li>Nominate a dedicated project communications lead from your local government's communications team to attend regular meetings and be part of the project team.</li> <li>Ensure the project plan includes the resources and budget to fully engage with residents, communities and stakeholders.</li> <li>Contact WasteSorted<sup>1</sup> for FOGO resources. This ensures consistent communications and messaging across all local governments. Some local governments also use Recycle Right<sup>2</sup>.</li> <li>Take the resident on the journey right from the start.</li> <li>Liaise with other local governments that have transitioned to FOGO and consider existing research and information such as local government community waste surveys, and waste and recycling audits. Undertake further research where needed to understand resident expectations, priorities, opportunities, barriers and potential reactions to the food waste service.</li> <li>Consider how different people might react – start engaging people from the different groups early on so that they can be involved in the decision-making process, reducing the likelihood of negative reactions.</li> <li>Prepare a communications and engagement strategy, including an internal council communications strategy; prepare complementary measures plan as part of Waste Authority funding agreement.</li> </ul>	<ul style="list-style-type: none"> <li>What is FOGO?</li> <li>Why implement a FOGO service?</li> <li>How will it work?</li> <li>What will go in which bin?</li> <li>Where will it go?</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated FOGO web page with FAQs updated on an ongoing basis.</li> <li>Involve mayor/councillors.</li> <li>Use of local government communications tools (e.g. newsletter/social media).</li> <li>Undertake a community survey.</li> <li>Use the WasteSorted multilingual resources, or other resources, to help communicate with culturally and linguistically diverse (CALD) groups in your local government area (information access from ABS Quick Stats<sup>3</sup>).</li> <li>Staff training: customer service staff should be trained to respond to most resident enquiries when the service begins.</li> <li>Questions that cannot be answered should be passed onto the waste team.</li> </ul>

You may find that these WasteSorted resources are useful for building awareness:

- WasteSorted icons and social media images
- WasteSorted branded PowerPoint template
- WasteSorted CALD resources.

<sup>1</sup> [WasteSorted - WasteSorted](#)

<sup>2</sup> [Home - Recycle Right](#)


<sup>3</sup> [QuickStats \(abs.gov.au\)](#)



## Phase 2

### Announcement of the service launch – Get ready to FOGO

This phase starts 12 months before the launch.

Strategy	Key messages	Tactics
<ul style="list-style-type: none"> <li>Make sure residents know the changes are coming.</li> <li>Communicate what success looks like (low contamination and high diversion rate) and current state versus future state (garden and food waste in landfill versus being composted and used to help soils and farms grow).</li> <li>Provide details of household support – supply of compostable liners/caddies/bins to previous non-subscribers.</li> <li>Define how you will capture resident feedback (emails, social media, phone calls).</li> <li>Establish clear roles and responsibilities for communications and engagement.</li> <li>Identify local government events and engagement activities and develop a calendar of activities to begin community engagement.</li> <li>Build on the research and information gathered in Phase 1 to inform the messages and approach moving forward.</li> </ul>	<ul style="list-style-type: none"> <li>When will FOGO start?</li> <li>What are the changes?</li> <li>Will the extra bin cost me more?</li> <li>Make sure residents know the changes are coming: ‘Soon we will be putting your food waste to good use.’</li> <li>Continue with Waste Sorted/Recycle Right messaging and activities.</li> <li>Promote certified compostable symbol for liners.</li> </ul> 	<ul style="list-style-type: none"> <li>Dedicated FOGO web page with FAQs updated on an ongoing basis.</li> <li>Involve mayor/councillors.</li> <li>Use social media and online discussion forums, blogs and surveys as a cost-effective way to gather unstructured feedback.</li> <li>Announce service changes in newsletters, rates notice inserts etc.</li> <li>Use WasteSorted videos and cinema adverts.</li> <li>Promote use of Waste Apps (Recycle Right App).</li> <li>Identify potential ambassadors/champions.</li> </ul>

You may find that these WasteSorted resources are useful for supporting your launch:


- WasteSorted social media images
- WasteSorted letterhead
- WasteSorted animations ‘FOGO is coming’
- WasteSorted press advertising
- WasteSorted interactive community display (available for loan)
- WasteSorted Facebook event banner
- WasteSorted email signature.



### Phase 3

## Lead up and launch of service – FOGO like a pro

This phase starts three months before the launch.

Strategy	Key messages	Tactics
<ul style="list-style-type: none"> <li>Build awareness of the change among residents and stakeholders.</li> <li>Notify all stakeholders before the FOGO service begins and at key milestones, including all local government staff (they should be your biggest advocates).</li> <li>Identify who may be a local government spokesperson and how to manage any negative reactions.</li> <li>Regular meetings with project team to understand their role and responsibility to manage the experience of residents, communities and stakeholders during the delivery phase.</li> <li>Set up monitoring and feedback systems to check progress from the residents' perspective.</li> <li>Early checks with residents will make ongoing communications easier and enable delivery improvements.</li> <li>Consider what project milestones warrant a news release or what reminders are needed.</li> <li>Be prepared to adapt the plan if the unexpected happens.</li> <li>Consider testing messages and collateral with residents including those with specific needs before the launch.</li> </ul>	<ul style="list-style-type: none"> <li>Simple 'do's and don'ts' brochure/pictorials, as well as more detailed information for people to access online.</li> <li>Keep messages positive and constructive – address concerns directly (e.g. odour).</li> <li>Ongoing liner messaging – where to get them, what happens if residents are using too many.</li> </ul> 	<ul style="list-style-type: none"> <li>Create awareness through advertising, cinema adverts, videos, social media, collateral and merchandise, events and/or community partnerships.</li> <li>Update web content, ensure it meets accessibility standards and caters for CALD audiences.</li> <li>Develop support material such as 'do's and don'ts' collateral.</li> <li>Run pop-up information sessions and workshops.</li> <li>Keep listening across media, web and social media, and be prepared to respond to negative reactions.</li> <li>Look at cross-promotional opportunities through the local government events calendar and have caddies/liners (if they can be used) on hand at these events to use for food waste and scraps.</li> <li>Have a communication response planned to address contamination.</li> <li>Develop internal communications.</li> </ul>
<p>You may find that these WasteSorted resources are useful for your launch:</p> <ul style="list-style-type: none"> <li>WasteSorted social media images</li> <li>WasteSorted flyer</li> <li>WasteSorted animations on how to use your FOGO bin</li> <li>WasteSorted bin stickers</li> <li>WasteSorted magnets.</li> </ul>		

## Phase 4

### Immediately post launch – You’ve almost got it sorted

Strategy	Key messages	Tactics
<ul style="list-style-type: none"> <li>Continue communication activities to reinforce the change and engage with new residents.</li> <li>Get hold of supporting resident and stakeholder information – both objective (e.g. waste data) and subjective (e.g. opinions) – to understand the impact of the project on people.</li> <li>Collect stories to celebrate success and/or to educate residents. Share externally through media, social media and partners.</li> <li>Collect visual and audio material to support communications, marketing and learning.</li> </ul>	<ul style="list-style-type: none"> <li>Provide messages to people around volume of material collected and material recovery rates.</li> <li>Use good news stories to celebrate success, highlighting the amount of food waste that has been diverted to build momentum around food waste avoidance messaging and tools.</li> <li>Thank residents for doing their bit.</li> <li>Have messages and FAQs in place for dealing with bag distribution issues for people who run low/out.</li> <li>Identify that residents can use other options such as paper.</li> <li>Additional charge for bins not placed at kerbside on time for collection.</li> </ul>	<ul style="list-style-type: none"> <li>Include regular reminders across local government channels that food waste can be recycled.</li> <li>Include regular reminders to changes in collection frequencies for residual waste and/or co-mingled recycling.</li> <li>Consider a pledge campaign – we’re putting food and green waste to good use.</li> <li>Report back on initial results and thank residents – run a story via local government communications channels and leverage local media.</li> <li>Target schools to provide ongoing education via the Waste Authority’s Waste Wise Schools program.</li> </ul>



You may find that these WasteSorted resources are useful for your launch:

- WasteSorted social media images
- WasteSorted press advertising
- WasteSorted school posters

**Phase  
5****Post FOGO service launch and ongoing evaluation – We've got our waste sorted**

Strategy	Key messages	Tactics
<ul style="list-style-type: none"><li>• Promote broader waste avoidance behaviours using the WasteSorted Be a GREAT Sort campaign.</li><li>• Identify contamination</li><li>• Use audit results to report back to the community on the project's progress.</li><li>• Continue to get feedback from your residents and customer service staff to continue to improve and adapt.</li><li>• Use waste audits for a before and after comparison of diversion and contamination rates.</li><li>• Share results with the residents, including showing the documented results and share in the success.</li><li>• Do not shy away from negative project results. This is when good communications and engagement can show residents that you genuinely care, accept responsibility, and want to put things right from lessons learned. If projects are moved from one team to another, then handover arrangements should include any communications and engagement activities.</li><li>• Work with your communications lead to ensure continuity of communications and engagement activity by ensuring business-as-usual arrangements are in place.</li><li>• Evaluate the success of the communication strategy and adjust ongoing communications if required.</li></ul>	<ul style="list-style-type: none"><li>• What can and cannot go into each MGB.</li><li>• Continue to remind residents about what they need to do.</li><li>• Continue to celebrate success highlighting the amount of food waste that has been diverted to build momentum around food waste avoidance messaging and tools.</li><li>• Continue to thank residents for doing their bit.</li><li>• Continue to educate on the use of correct compostable liners (overcome any confusion among residents between biodegradable and compostable liners).</li></ul>	<ul style="list-style-type: none"><li>• Continue to remind residents what is not accepted in the FOGO MGB.</li><li>• Continue to remind residents that food waste can be recycled.</li><li>• Include regular reminders to changes in collection frequencies for residual waste and/or co-mingled recycling.</li><li>• Share good news stories with the media.</li><li>• Recognise and reward good behaviour (individuals or particular streets).</li><li>• Report results back to residents every year.</li><li>• Use all research, consultation and feedback information to influence long-term plans and record lessons learned. Share this information with partners and other local governments.</li><li>• Liaise with the organics processor to provide educational tours of the facilities for schools and community groups.</li><li>• Shelf talkers in shops indicating the correct compostable liners.</li></ul>



## Step 8 Information management

**Aim: Ensure information management systems and data is fit for purpose.**

### Approach for local government officers

Before the rollout of a new waste service, you may need to collate different local government databases about ratepayers, residents, addresses and current waste management services. You may also need to develop interactive online and telephone systems capable of providing information to residents and ratepayers. Tasks include:

- Collate and 'clean' different databases such as ratepayers' details (including non-resident owners) and electoral roll or other resident address information. In some instances, waste, recycling and organics databases may currently be separate or multiple databases/client detail lists may exist for the one service. Households may have acquired MGBs that are not recorded on local government systems.
- Check whether there are any historical 'quirks' where some properties are not being charged for services or have acquired additional MGBs.
- Conduct fieldwork to identify:
  - the number and type of MGBs in existence and how adequately they meet the needs of residents.
  - non-standard placement of MGBs particularly on rollout boundaries (dual frontage lots, laneways etc).
- Collate detailed database information about bin stock: this is vital because although bins might look similar, they may have slightly different lid dimensions. Waste collection and bin supply companies can vary bin design during the life of a contract, and in some local governments MGBs have been supplied at different times.
- Record the provision of MGBs to residents – where MGBs are barcoded, you can link barcode information to addresses. This can be used to monitor collection from households and to identify missing or stolen bins.
- Consider using IT services to develop automated and interactive telephone information. This may be particularly useful for CALD residents and those without access to internet services. Translation services, multilingual webpages and recorded messages with Interactive Voice Response (IVR) functions may also be required.
- Check whether the existing local government GIS database is compatible with the contractor's method of recording data in the field. You may need to source additional software.
- Look at any data time lags: When does data from the field become available to staff dealing with queries and calls?
- Work out how residents who require MGBs when they finalise the build of new homes or purchase property will be accommodated during the rollout.
- Estimate how many new properties will come online during the rollout. Liaise with your planning department to determine this information.
- Consider how the database and rates department should account for properties that are given a 140-litre general waste bin but require a 240-litre bin.

Data forms a critical issue in rollouts – you may experience the following issues:

- physical/postal ID does not match rated address
- no letter boxes at new properties or in some areas (letters undeliverable)
- new premises not in the database
- rated database varies slightly to the physical property
- strata properties not included but there may be multiple residences on a single block
- new MGB lids not compatible with older-style MGBs
- locked bin rooms in MDDs
- contractor changes lids at properties that are not part of the FOGO implementation, such as commercial properties (need to ensure the contractor only changes lids at eligible properties).





## Step 9 Procurement

**Aim: Ensure local government meets the requirements of the Local Government Act in relation to procurement and receives the best value-for-money outcome.**

### Approach for local government officers

In accordance with the requirements of section 3.57 of the *Local Government Act 1995*, when you introduce a new FOGO kerbside service you will have to procure a range of new products and services including:

- organics processor
- waste collections
- MGBs
- kitchen caddies and compostable liners
- rollout service
- lid exchange
- marketing/communications/education resources.

Collection and processing should be separate procurement contracts to allow for greater financial transparency when comparing like for like. A contract term of seven to 10 years is generally recommended for collection and processing contracts as the contractor may be required to invest in specialised and expensive equipment and infrastructure.

You should procure the agreed services using your local government's in-house procurement team's expertise, processes and procedures. You will also need input from other appropriate teams, including technical, finance, legal, occupational, safety and health, communications and planning. As such, you will need to identify adequate internal and external resources to ensure the procurement is successful. Staff time will need to be planned and allocated across the procurement program to account for times when staff are on annual leave. Your waste team may take the lead role for a FOGO procurement, supported by other disciplines and expertise as appropriate. It may take three to six months to prepare tender documents, internal and legal reviews, the advertising timeframe, evaluation of submissions, clarifications, preparation of reports for council and final council approval. Note that you may not necessarily acquire the goods and services in the first tender attempt and may need to go back out to the market again. This could potentially

delay the rollout of the service. You may be able to use the [WALGA Preferred Supplier Panel](#) and contract template to streamline the process.

### 9.1 Organics processor

You need to secure an organics processor to ensure the success of a FOGO kerbside service. When developing tender documents you should consider the following:

- The successful contractor must be fully licensed to accept FOGO – including Department of Water and Environmental Regulation (DWER) environmental approvals and local government approvals. It must be able to operate in accordance with DWER's better practice guidance.
- Transfer stations may require a licence amendment to accept FOGO material. You should factor in DWER approval times for processing licence amendments. The timeframe for DWER approval could potentially be 18 months or more, and for new FOGO facilities 18 to 24 months or more.
- The facility must have the capacity to accept your local government's current organic waste stream and be able to accommodate any future projected growth in it.
- Materials produced from the organic waste must comply with Australian Standard AS 4454-2012 (as amended, or other equivalent standards which may be developed) and/or be suitable for priority markets informed by the Market Development Strategy for FOGO-Derived Products. DWER has established the FOGO Reference Group which includes representatives from the composting industry, waste contractors, regulators and local government.
- You should procure a proven processing methodology/technology which is able to receive a wide range of organic materials with the ability to produce and sell a high value end product.

- You should frame and agree to contamination provisions with care. Contamination levels may depend upon multiple factors, some of which are out of the local government's control. Western Australian local governments who operate a FOGO kerbside collection service have average contamination rates from 2 to 5% and, in some instances, up to 10% in the first few weeks as residents adjust to the new service. Higher contamination rates mean higher gate fees because the processor must put more effort into decontaminating the product. You could potentially include criteria in relation to the price per tonne for contamination rates on a sliding scale; that is, <3%, 3–7%, 7–15%, >15%. This would allow local governments to track the effectiveness of community education.
- You should request that tenderers provide clear information on the extent of acceptable levels of contamination and how they will manage excessive contamination. If the processing facility accepts materials from other local governments, the contractor must consider the impact of cross contamination from other sources and how it will assess contamination for each individual local government.
- You should list the WARR levy separately in the service fee tender prices. This will allow you to budget for any potential landfill levy increases and create greater financial transparency for the life of the contract.
- Tenderers should provide information on the target markets and size into which the compost product(s) might reasonably be marketed and an assurance that all market/product risks have been identified, considered and mitigated.
- You may wish to conduct tender clarification meetings to enable your local government and prospective tenderers to consider questions about the content of the tender and seek clarification.



## 9.2 Waste collections

The rollout of a new kerbside service involves the collection of an additional MGB when transitioning from a two-bin to a three-bin system. This can be carried out in-house or outsourced. For local governments that do waste collections in-house, this may be an opportunity to review your existing methods and carry out a cost-benefit analysis to determine the feasibility of expanding in-house collections or outsourcing the collection of one of the three bins (not necessarily the FOGO bin). For other local governments there may be no option but to outsource. When preparing tender documents you should consider:

- the timeframe to procure new waste collection vehicles (this may be a minimum of 10 to 12 months from council endorsement)
- type of vehicle (rear-lift or side-lift), volume capacity
- that the vehicle must be fitted with a hopper-mounted camera to allow for contamination monitoring
- GPS software
- option for local government decals on trucks
- length of contract – normally 5 to 7 years with the option to extend (this gives contractors a greater level of certainty they can recover their capital investment over the life of the contract, and generates a greater level of commitment from the contractor)
- the number of MGB collections per week/fortnight (database accuracy is key here)
- projected demographic growth for the contract's duration
- annual tonnage by waste stream and average presentation rate by waste stream (applicable if your local government has an in-house service and decides to outsource recyclables or general waste collections)
- number of services in your local government area that require bins to be moved from sites (gopher services)
- current collection rounds/schedule
- price/MGB lift.

### 9.3 MGB procurement – supply and delivery of MGBs and parts

Depending on the extent of existing and planned contractual arrangements for MGBs and parts, the required services can potentially be packaged as part of a new procurement service or combined with the rollout service. You may wish to source MGBs and parts directly from manufacturers and suppliers independently or in partnership with other local governments. In some joint arrangements, an initial pre-qualification stage may have been undertaken and an approved supplier list (WALGA supplier panel) may be in place. The benefits of a joint approach may include reduced procurement costs, timescales, delivery lead-times and lower contract prices for individual local governments. Some local governments have opted to exchange lids on existing MGBs as part of the rollout service. Lid exchange costs less than whole MGB replacement but there may be instances where new lids are incompatible with the existing MGB: in these cases a new MGB replacement may be a cheaper option. An audit of existing bin stock in use may help you determine the new lid/new MGB approach. Not all local governments own the MGBs – sometimes they are owned by the property owner.

When developing tender documents for MGBs and parts you should consider the following:

- All MGBs and parts must be supplied to comply with *Australian Standard (AS) 4123.7: Mobile waste containers – colours, markings and designation requirements*. This standard allows for MGB bodies either to be black or dark green with consistency in lid colours.
- The MGB body can be manufactured from a mixture of virgin polyethylene and recycled polyethylene or post-consumer plastics. The MGBs must be capable of withstanding Perth's level of ultraviolet radiation and temperature variations for a minimum of 10 years without exhibiting any noticeable degree of deterioration. The MGB must comply with *Australian Standard AS-1535: Moulded plastic household garbage cans* relating to exposure of ultraviolet light and be resistant to UV degradation as per ISO 4892.

- All old MGBs and associated parts must be recycled.
- Order MGBs three months before they are needed as manufacture and delivery may take 12 to 16 weeks depending on the contractor's existing contracts, the influence of Covid restrictions on logistics etc.
- Request a production schedule to demonstrate the tenderer's capacity to handle your local government's volume of MGBs.
- Normally MGBs are dispatched in sea containers. You may want to consider how the container will be unloaded. Does your local government have sufficient resources to do this or will it be a contract requirement that the supplier empties the container at the supplier's cost?
- Your local government should retain ownership of the MGBs.
- Consider optional hot stamping or embossing on lid – graphics to be supplied by your local government.
- Normally local governments allow two futile attempts to exchange the MGB/lid. After two attempts if the MGB/lid is still not exchanged you will need to work out how to manage this. Ensure you have sufficient resources to carry out this work.



Most local governments with a FOGO service have found that the highest levels of ongoing participation and food diversion are achieved by providing a kitchen caddy (a small tub with a handle that can be kept in food preparation areas for food scraps collection) and/or compostable liners. This is the recommended approach of the Waste Authority's *Better practice FOGO kerbside collection guidelines*. As part of your tender process you should request samples of kitchen caddies and compostable liners.

### Considerations for kitchen caddies

Kitchen caddies are best when they:

- are 7L capacity and sealed (square not oval shape)
- are made from recycled materials including a proportion of post-consumer recycled plastic
- have a rear-mounted tab to attach to the wall or inside of a cupboard door
- have a sturdy carry handle
- have a lid that sits flush with the body and can be closed and locked shut
- sit flush to the floor/bench
- are dishwasher safe
- have a hinged closed fitting lid
- have a neutral colour (matches most kitchens).
- have information on the lid (pictures or a message from your local government illustrating the materials accepted in FOGO)
- have replacements available (Is there a cost to the householder for this? If so, this needs to be incorporated into financial model in the business case.)



### Considerations for compostable liners

Compostable liners are best when they:

- are made from compostable material in compliance with and certified by *Australian Home Composting AS5810-2010* and *Australian Commercial Composting AS4736-2006 Biodegradable plastics – Biodegradable plastics suitable for home composting*.
- have 8-litre capacity
- are lime-green in colour
- have a minimum thickness of 18 microns and have suitable strength and durability to securely enclose and contain contents for transfer to the processing facility via waste collection compactor vehicle (liners below 16 microns tear easily)
- have a shelf life of at least 12 months (most caddy liners have a shelf life of 18 months in a climate-controlled environment)
- are singlet style; that is, have handles which are easily tied off and sealed.

You should also:

- determine whether to source the liners from China or Australia – consider the timeframe of delivery from China
- consider the number of liners on a roll – some are packaged in tear-off rolls of 75 liners per roll for 8-litre liners
- look at unbranded liners as branded liners make it difficult to sell/swap excess stock to other local governments
- aim to provide each household with two to three free rolls of liners per year
- ask: Is there a cost for additional liners and ongoing supply or are they free to the resident? Is this accounted for in the business case financial model?
- ask: How do residents get additional liners? Are they hand delivered or collected from the local government office, library or other facility?



## 9.5 Rollout service

Rollout of the new service could potentially be on a phased basis (suburb by suburb depending on the geographical size of your local government area) or over several weeks.

When developing tender documents, you should consider the following:

- When to deliver and retrieve MGBs – do it on the same day or deliver and retrieve one day apart. This will be specific for each local government.
- Normally local governments allow two futile attempts to retrieve the MGBs from properties. After two attempts if the MGB is still not retrieved from the property how will you manage this? Are there sufficient resources in-house to carry out this work or will you outsource it?
- How will education information on the new service be distributed? Is the information attached/stuck to the lid or contained within the kitchen caddy?
- How will the kitchen caddy and compostable liners be distributed? Are the liners contained with the caddy? Is the caddy attached to the handle of the MGB? Are the caddies and liners delivered door to door? Each local government should decide what method best meets their requirements.
- Start date of new collection service – a sticker on the MGB or information contained in the caddy?
- The local government normally provides the successful contractor with a database of households, the property address and suburb maps. Data should be recorded electronically and be compatible with existing local government information technology systems.
- Provide daily updates on rollout progress.
- How will your local government deal with properties that require 'special services' (where the contractor will be required to enter the property to retrieve and replace MGBs)?
- Door-to-door communications may provide a chance to deliver key information to residents in person, as well as enable residents to ask questions and clarify their understanding of the new service. This may not be feasible for all local governments due to the staffing resources required and budget constraints.
- Some local governments, for example the Town of Bassendean, have organised a kick-off event as a means of generating interest and raising awareness about the new service.
- Cost overruns – in relation to MGB retrieval, consider additional staff, requirements for additional MGBs due to inaccuracies in the MGB database, higher-than-expected contamination rates resulting in extra information and education measures, slow sales of generated recycled organic products that may require support measures (such as increased use by local government, market development aid, or higher processing fees), failure of the selected processing technology resulting in a cost blow-out, even if the liability is not directly with local government.



## 9.6 Lid exchange

Some local governments have opted for a lid exchange instead of a full MGB replacement. Before you develop your tender documents you should consider the following:

- type/brand of MGB currently in use
- who owns the MGB (local government or property owner)
- MGB presentation rate (if your presentation rate is low it may be more difficult; that is, take additional resources and time to complete the lid exchange)
- how many attempts may be required to exchange the lid – typically two attempts are made, after that the process needs to be determined
- tools required for MGB pin removal
- whether the lids and pins will be recycled by contractor.



Bin lid replacement	Whole bin replacement
The cost of replacing bin lids is significantly lower than whole bin replacement.	Fully replacing bins has the highest capital costs and is best considered where existing bin stock is old and becoming worn.
Replacing bin lids involves changing non-compliant lids with compliant lids. It is particularly relevant where local governments have already adopted compliant bins for recyclables and/or organics, but not for general waste bins which still have at least five to 10 years of serviceable life.	We suggest you consider bin replacement when new collection service contracts are being tendered and where existing bins are more than 10 years old.
Lid replacement does not change bin volume, so unless the frequency of bin collections are reduced or households are given incentives to put out bins less frequently, households will continue to have bin capacity. This may lessen the effects of bin lid changes and engagement over time.	Bin replacement costs will vary depending on tendered prices and factors such as bin sizes selected by households and the salvage value or cost of having old bin stock removed.
For existing local governments who have a GO MGB with a lime-green lid, one potential option may be to place a sticker on the lid indicating what items are accepted.	The costs of bin replacement can be built into service contracts and amortised over the life of the contract but if interest rates are low, such an arrangement may cost more overall than outright borrowing to buy bins.
	This affords the local government the option to include replacement in the contract schedule for pricing purposes, which can be accepted by council pending available funding.



# Step 10 Logistics

**Aim:** To consider the key elements of rollout logistics and how it will be managed.

## Approach for local government officers

Four key elements underpin a smooth rollout in relation to logistics, including:

- adequate staffing
- training staff
- rollout of service
- post rollout clean-up.

### 10.1 Adequate staffing

To ensure the FOGO rollout is smooth and successful, you should consider recruiting dedicated staffing resources to undertake these activities. The staffing required for community engagement will vary depending on the size of your local government. Allow time for advertising the role and receiving a large number of applications. Recruiting early will allow the officer time to settle into the role, develop strong working relationships with other staff and stakeholders and participate in the preparation of the communication strategy, marketing collateral and education program – before service commencement and/or a pilot.

You may also need additional call centre staff to handle the expected increase in enquiries during the FOGO implementation period. This was necessary for the City of Melville when it piloted and rolled out its three-bin FOGO system, from a two-bin system in 2017–18. Two additional call centre staff were required. During the first six months of the pilot there was 963 customer enquiries and 138 enquiries in the following six months.

The City of Stirling employed one change/marketing manager, one project manager, one project officer, one strategic development manager, one contract business analyst, one administration officer and six customer service officers to field calls after the three bins had been rolled out.

The City of Wanneroo employed two additional call centre staff, one project manager, one senior project officer, an additional waste education officer and a project support officer. Additional operational staff were also required.

Staff from EMRC helped the Town of Bassendean with the rollout and received 787 phone calls over the two-week rollout period.

### 10.2 Training staff

Your frontline staff should receive basic training on the new service and be equipped with answers to frequently asked questions. This includes not just call centre staff, but also operational staff at the libraries, drop-off sites, waste collection staff and contractors.

### 10.3 Rollout of service

When the rollout service begins, you must stay in daily contact with the rollout contractor. Data from the field should be uploaded to your local government's database so that call centre staff can answer any queries from residents. Any issues or challenges encountered should be documented and troubleshooted.

### 10.4 Post rollout clean-up

Once the rollout is complete you should consider how to deal with MGBs that have not been retrieved or MGBs that do not have the standardised lid colour. The clean-up could potentially take several months depending on costs and staffing resources.



# Step 11 Monitoring and evaluation

**Aim:** To understand how the new service is performing and identify opportunities for improvement.

## Approach for local government officers

Monitoring will enable you to understand how the FOGO service is performing and to identify opportunities for improvement. Ideally monitoring should occur before, during and after the service is introduced. It may involve regularly measuring outcomes such as customer satisfaction, participation rates, contamination rates and diversion rates. You should adopt a process of continuous improvement by applying what you learn from these monitoring activities. The monitoring and evaluation may include:

- recoding data (phone calls, emails, requests, complaints)
- bin tagging to assess if residents are using the three-bin system correctly
- waste audits of all three kerbside MGBs to capture material composition of each MGB
- measuring resident satisfaction via community surveys
- assessing contamination rates in all three MGBs
- finding an approach to deal with repeat offenders:
  - for excessive contamination (potentially use the Waste Local Law to remove MGB)
  - who do not put out the correct bins on collection day and the waste truck has to return to the property to service MGB
- tonnage of FOGO collected and recovered
- tonnage of waste diverted from landfill
- identifying successful systems as well as problems/issues
- assessing expenditure and control costs (in terms of anticipated quantity of organics collected), demand for compostable liners, and the impact on education and processing costs of different contamination levels.
- planning targeted communications to improve performance and inform residents and councillors of the outcome
- planning reactive communications – change messaging to suit topic (if contamination is an issue, lids not exchanged, wrong MGBs presented).



## Step 12 Additional considerations

**Aim:** To address all considerations, including public perception, about the new services.

### Approach for local government officers

When introducing a new waste service you should also consider:

- community perceptions about the reduction in bin capacity
- odour of the waste and public perceptions relating to this
- other service changes required, for example dog poo bags in parks.

#### 12.1 Perception of reduced bin volume

Reducing the size of the general waste bin may generate discussions about the lack of volume available for waste disposal. It is important to note that a better practice FOGO system provides **more weekly disposal capacity** (430 litres per week) than a standard two-bin system (360 litres per week) as set out in the table below. A better practice FOGO service also provides proportionally *more capacity for recycling*, and *proportionally less capacity* for general waste.

The total capacity provided by a better practice FOGO system should be sufficient for most households if materials are disposed of in the right bin.

Service	Equivalent collection volume per week
Standard two-bin service	<b>360 litres</b> weekly volume, consisting of: <ul style="list-style-type: none"><li>• 240 litres general waste (240L bin collected weekly)</li><li>• 120 litres co-mingled (240L bin collected fortnightly)</li></ul>
Better practice FOGO service	<b>430 litres</b> weekly volume, consisting of: <ul style="list-style-type: none"><li>• 70 litres general waste (140L bin collected fortnightly)</li><li>• 120 litres co-mingled (240L bin collected fortnightly)</li><li>• 240 litres FOGO (240L bin collected weekly)</li></ul>

However, more general waste capacity may be required for large households (most local governments determine large families as five or more), families with children under the age of two who wear nappies or households with special needs.

You would need to consider:

- the criteria for providing additional capacity, and the evidence required by your local government
- the timeframe for providing additional capacity (if approved)
- charging options.

Some local governments (Town of Cambridge, Town of Bassendean and City of Joondalup) charge residents an additional fee for a larger 240-litre general waste bin. The cities of Melville and Fremantle and the town of East Fremantle offer an upgrade to the 240-litre general waste bin free of charge following a successful needs assessment (140-litre bin is emptied by rear loader after one week and assessed for capacity and correct contents). The bin is then exchanged to the 240-litre on the spot (Melville) or on the next collection day (Fremantle).

## 12.2 Odorous waste

Moving to a less frequent collection and/or smaller general waste bin may not be an attractive option for those households with children who wear nappies. However, most parents of children in nappies reported that the three-bin system provided sufficient general waste capacity to dispose of nappies. The issue reported was the smell. Bin odours are generally well contained as long as the MGB remains closed but over-filling of MGBs can result in offensive odours.

The Shire of Capel introduced a FOGO service to urban areas in 2013 and conducted research into the effect of nappies and smells. The investigation showed the nappies that went into the general waste bin began to smell worse from two to four days. After four days the smell remained constant (neither worsening nor improving) until the bin was collected within the fortnight.

In 2016 Lake Macquarie City Council<sup>4</sup> introduced a FOGO service. It sought direct-user feedback through a community nappy trial involving approximately 100 households to decide on the best way to manage the disposal of children's nappies and incontinence aids. The trial indicated that a 240-litre MGB holds about 300 soiled nappies and that the odour of nappy bins at the end of a fortnight was no worse than the odour of regular general waste MGBs at the end of the week. Also, the observed odour did not significantly increase with time nor with the amount of nappies in the MGB. Wrapping soiled nappies in at least one plastic bag and keeping the MGB out of the sun are both key odour management behaviours.

## 12.3 Other services

You may want to consider providing compostable dog poo bags/dispensers in parks. This would be to align with the service that the community receives at home.

The City of Melville has installed public Doggie Dunnie<sup>5</sup> bins as part of a pilot to reduce the amount of organic waste sent to landfill. The public bins are specifically designed for the disposal of dog waste in compostable bags.



<sup>4</sup> [Microsoft Word - Community Nappy Trial Report - November 2014.DOCX \(amazonaws.com\)](#)

<sup>5</sup> [Dog waste bin station for clean separation of compostable dog waste bags - Doggie Dummies](#)



## Appendix 1: Example timeline

FOGO implementation – assumes 24 months of preparation and planning

[illegible]



Tasks and milestones	Months																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	24+	
Advertise tender																										
Evaluate responses including clarifications, departures, legal review, probity, financial check, prepare reports for council, select preferred tenderer																										
Council approval																										
Award contract																										
Contract begins																										
Procurement of collection contract <sup>6</sup>																										
Develop tender specifications																										
Internal and legal review																										
Advertise tender																										
Evaluate responses including clarifications, departures, legal review, probity, financial check, prepare reports for council, select preferred tenderer																										
Council approval																										
Award contract																										
Contract begins																										
Procurement of MGBs																										
Develop tender specifications																										
Internal and legal review																										
Advertise tender																										

<sup>6</sup> It may be the case that you need to secure a FOGO processor before you can write waste collection tender specifications, as tenderers will require information as to where they are travelling to dispose of the FOGO material. Currently there is a lead in time of a minimum of 10 months for the procurement of new waste collection vehicles. If you need new collection vehicles, then the FOGO implementation timeline is extended by 10+ months.

[illegible]

[illegible]



A pilot program can vary in length from a few weeks and months to one year. Local governments should determine what length of time best suits their needs. The information gathered from the pilot program can feed into the business case. For ease of reference a two-month pilot program is outlined below.

Tasks and milestones	Months						
	1	2	3	4	5	6	7
<b>Pilot program</b>							
Identify pilot area							
Order bins, liners and caddies							
Prepare and delivery messages							
Implement pilot							
Data collection and evaluation							
Develop report on pilot program							