

ITEM NUMBER: 15.1

CONFIDENTIAL - ATTACHMENT 2

WEEKLY FOOD ORGANICS-GREEN ORGANICS (FOGO) COLLECTION PILOT (Report No: 165/20)

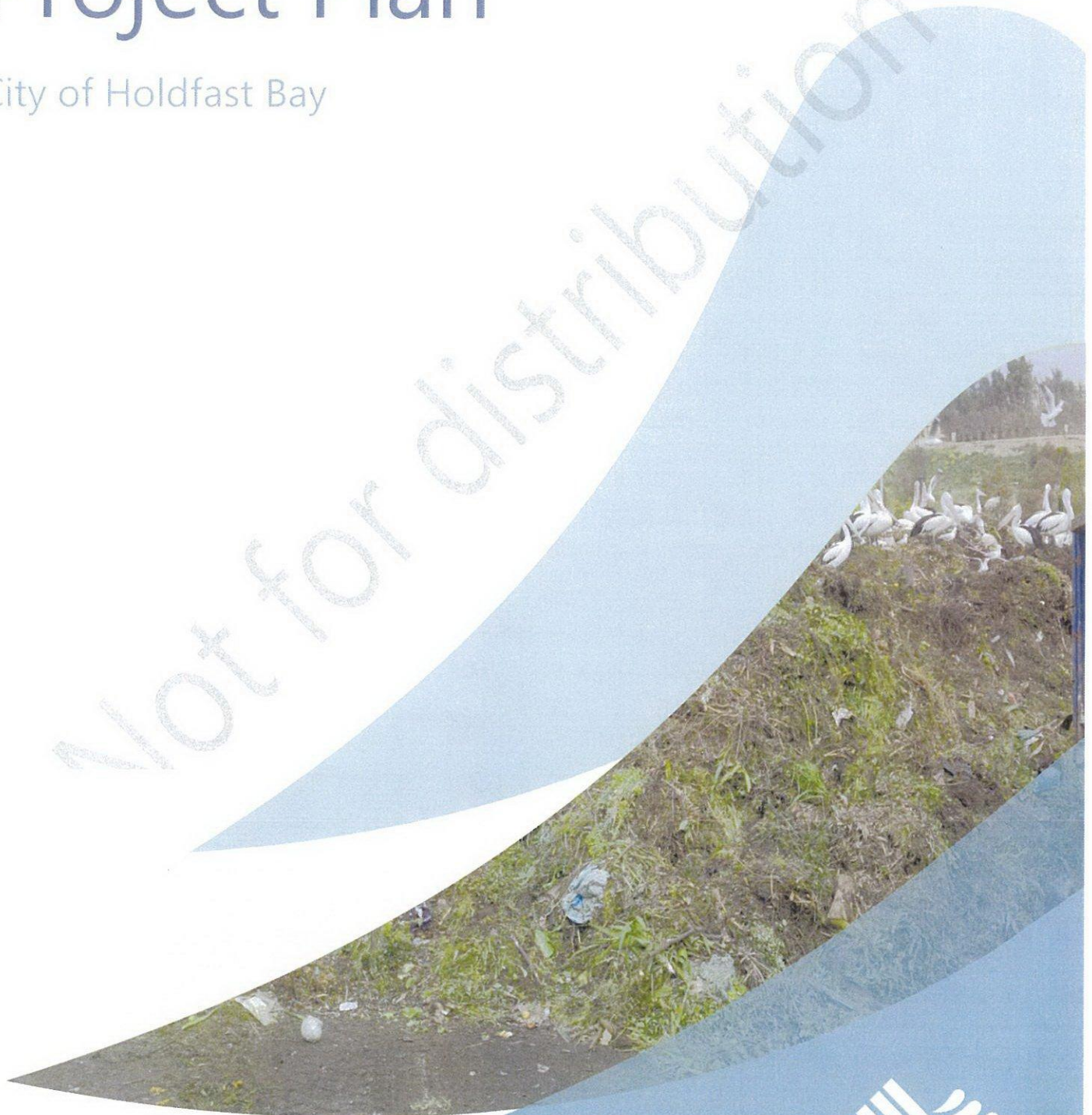
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Weekly FOGO Pilot Project Plan

City of Holdfast Bay

Not for distribution



Document verification

Date	Version	Title	Prepared by	Approved by
28 May 2020	Updated v7	Pilot Project Plan	K Heinrich & M Rawson	M Rawson

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Rationale

The City of Holdfast Bay (COHB) is a South Australian leader in waste and resource management. The council has achieved a landfill diversion rate of 59%. This is above the average performance of Metropolitan Adelaide councils (at 50%). However, there is a significant opportunity for the COHB to further reduce landfill volumes and provide a more convenient kerbside service to its residents.

The 2018 Holdfast Bay kerbside audit found that:

1. On average, the red (residual waste) bin contains 30-40% food that can be recycled is going to landfill.
2. Only 26% of food waste volumes is currently being recycled via Food and Garden Organics (FOGO) bins. The remaining 74% is being disposed by residents into residual bins.
3. On average, residual bins are only 64% full when collected.
4. Nearly two thirds of material placed into landfill bins is recyclable! In other words, if Holdfast Bay residents correctly sorted their recyclables into FOGO and comingled bins, then their need for the landfill bins would reduce significantly.

Councils with the highest diversion rates in Australia typically have a different kerbside model than COHB. For example:

- The City of Penrith (NSW) diverts 64%¹ of total kerbside material via comingled FOGO and comingled bins. The city offers their residents a menu of kerbside options. Most residents choose to stay with the default model (which is also the cheapest), which involves weekly FOGO, fortnightly comingled and fortnightly residual waste collections.
- The City of Melville (WA) ran a pilot with nearly 7,000 households to introduce weekly FOGO, together with fortnightly comingled recycling and fortnightly residual waste collections. Residents participating in the pilot were also given the option to upsize their comingled recycling bin, and if needed, were provided an extra general waste bin. Households participating in the pilot diverted 64.4%² of kerbside materials from landfill. The pilot received widespread support from the community. This kerbside model is being rolled out to all households in the City of Melville on July 1st 2019.

Key to the success of the examples listed above is providing a weekly FOGO collection and encouraging/ providing a fortnightly residual waste collection. The above cities have also recognised that one size does not fit all households. They have provided some flexibility to households wishing to upsize their bins (Cities of Melville and Penrith) or change the frequency of their collections (City of Penrith).

¹ Estimate of materials diverted from landfill at kerbside via 3-bin service (based on data on p 14 of the Penrith Waste Strategy). We understand that Penrith measure and report landfill diversion differently, as they include clean up waste, which means they report a lower diversion rate.

² Southern Metropolitan Regional Council - Results of FOGO implementation trial

Alternative bin frequencies are common in other jurisdictions, including several NSW councils (see Box 1 overleaf). In SA the Fleurieu Regional Waste Authority offers residents a fortnightly collection for FOGO, comingled recycling and residual waste.

There is an opportunity for the City of Holdfast Bay to implement a pilot for an alternative kerbside service that both better suits the needs of residents and supports improved recycling levels. The COHB pilot could draw from best-practice experiences by:

- Providing a weekly FOGO, fortnightly comingled recycling and fortnightly residual collection. A weekly FOGO service would increase the convenience and reduce odours associated with residents placing their food waste into FOGO bins for recycling.
- Providing choice and flexibility to residents, by offering the option for residents to upsize their comingled bins and residual bins if needed. In addition, provide weekly collections of residual bins over peak waste generation periods (such as the Christmas/New Year period).
- Educating and supporting residents to reduce their waste generation volumes.

This service model is expected to lead to many benefits.

1. Delivering a service that is both **more cost-effective** and **environmentally sustainable** than the current offering.
2. Providing a **more convenient option for recycling food waste**, which provides weekly collection that will minimise odour.
3. Giving residents **more choice** on both bin sizes and collection frequency.
4. Offering a kerbside service that provides residents with **more bin capacity/volume** on a 4-week cycle (1720 litres vs 1520 litres).
5. **Lower landfill** volumes.
6. **Reduced payments** of the SA solid waste levy, and reduced exposure to future increases in the levy. The metro levy has increased from \$42/tonne in 2012 up to \$110/tonne on July 1st 2019. This is set to increase up to \$140/tonne on January 1st 2020 (see figure 1 overleaf).
7. **Reduced greenhouse gas emissions** associated with lower landfill volumes. Reducing food waste is the 3rd most substantive action for reversing global warming according to Project Drawdown.³
8. **Contributes to additional jobs in our growing circular economy.** The estimated direct FTE employment per 10,000 tonnes of waste is 9.2 for recycling and 2.8 for landfill.⁴

Furthermore, separating organics (food and garden waste) through the 3-bin system provides contractors with clean organic material to process. Placing organic waste in FOGO bins keeps it at its highest value, as opposed to removing organic waste from residual bins for landfill capping. Source separated organics is processed into compost that returns nutrients and holds moisture in dry South Australian soils to assist local food producers. This method is best-practice and is consistent with the directions that interstate and overseas jurisdictions:

³ <https://www.drawdown.org/solutions/food/reduced-food-waste>

⁴ <https://www.environment.gov.au/protection/waste-resource-recovery/publications/employment-waste-management-and-recycling>

- The EU has introduced a new requirement for separate collection of bio waste (including garden and food waste) by 2023.
- In 2018, NSW EPA announced it does not intend to allow Mixed Waste Organic Outputs to be used as a soil amendment on agricultural, mining rehabilitation or forestry land.

Box 1: Weekly FOGO in NSW

Providing a weekly FOGO and fortnightly residual bin service is common in NSW. The following NSW councils offer this service:

- Tweed *
- Shellharbour *
- Richmond Valley
- Port Macquarie Hastings
- Penrith*
- Nambucca
- Lismore *
- Kempsey
- Kiama*
- Forbes
- Federation
- Coffs Harbour
- Clarence Valley
- Byron*
- Bellingen
- Ballina
- Albury*

In 2018, the NSW EPA commissioned a report to look at the performance of different bin configurations for diverting food from landfill. This review found in general, councils providing a fortnightly general waste collection achieved higher food waste diversion efficiencies compared to those on a weekly general waste service. In addition, councils providing smaller general waste bins (120/140 litre) achieved higher food waste diversion efficiencies compared to councils with larger general waste bins (240 litre).

* councils where the predominant red bin fortnightly bin is 140L rather than 240L. Most of these councils offer a fortnightly 240L red bin for additional cost and or for certain households e.g. large families.

Assumptions

The following sections provide an overview of pilot objective, design, timelines, resources, costs and community engagement. We have developed this based on our industry knowledge and review of best-practice examples from interstate jurisdictions. We have made some assumptions (e.g. pilot costs) that would need to be confirmed once the pilot design has been finalised. We have also assumed that the pilot would lead to several benefits. These benefits need to be measured and confirmed during the pilot via community surveys and audits. These steps have been considered and included in the recommended pilot steps.



Pilot objectives

The objectives of the pilot are to:

- Help build support to move towards a kerbside model that:
 - Is more environmentally sustainable and cost-effective than current offering
 - Provides choice and flexibility to residents who would like extra services
- Determine how well the piloted kerbside model works for the community
- Measure changes in levels of food waste recycling, comingled recycling and reduction to landfill
- Quantify benefits and costs (savings, costs, greenhouse gas impacts)
- Enable a business case to be assessed for broader rollout
- Determine other choices and flexibility that may be required to support a broader roll out
- Summarise for Council with recommendations

Pilot design

Kerbside model

The table below provides a summary of the pilot kerbside model vs business as usual (BAU). This pilot model provides residents with:

- Weekly 240-litre FOGO, fortnightly 240-litre comingled (no change from BAU) and a fortnightly 140-litre residual bin. This allows residents to recycle their food scraps via FOGO bins for weekly collection (rather than fortnightly).
- A higher total bin volume: up to 1720 litres per four weeks, compared to 1520 under BAU
- Choice and flexibility, including options to upsize their comingled bin to 360 litres and to get an extra residual bin if needed.
- Additional weekly collection of residual bins during peak waste generation period over Christmas (2 extra collections over Christmas to have 5 consecutive weeks of general waste collections).

This kerbside model design could be further developed in consultation with the community to ensure it meets their needs.

	Pilot model	Business as usual
Kerbside service	<ul style="list-style-type: none"> • Weekly 240-litre FOGO • Fortnightly 240-litre Comingled • Fortnightly 140-litre Residual 	<ul style="list-style-type: none"> • Fortnightly 240-litre FOGO • Fortnightly 240-litre Comingled • Weekly 140-litre Residual
4-weekly volume of waste and recyclables per household.	1720 litres	1520 litres
Choice and flexibility	<ul style="list-style-type: none"> • Optional upsize to 360-litre comingled bin • Optional to request extra residual bin where needed (e.g. for larger households, households with nappies) • Weekly collection of residual bins over peak waste generation period (Christmas holidays) • Option to stay with BAU bin frequencies. 	No choice or flexibility
Expected outcomes	<ul style="list-style-type: none"> • Increased food waste recycling levels via FOGO bins with weekly collection that minimises odours • More choice to residents on the size of their bins • Lower landfill volumes 	No changes

Participation model

- Residents must volunteer to participate in the pilot. If you don't volunteer your service remains exactly the same.
- Residents can opt out at any time by presenting your red bin (reverting to the normal frequency)
- When residents volunteer, they get access to the weekly FOGO/fortnightly waste/fortnightly comingled – presenting 2 bins each week. Red and green bins swap frequency.
- Large households and families with nappies will be given choice and flexibility options based on their needs. Pilot participants can get an extra red bin or upsize their yellow recycling bin if they need.
- All red bins presented each week will be collected.
- The residual waste truck will go past all properties each week and collect all red bins (hence meeting the metro residual waste service requirements of the EPP)

Pilot size and location

The pilot will involve volunteers from 1,000 households (about 6.4% of the City of Holdfast households). This will include approximately 500 households from Monday collection run (Seacliff/Kingston Park) and 500 from the Wednesday collection run (Somerton Park). The pilot will be aimed at single-unit dwellings and will not include commercial properties.

Key steps and timelines

The table below identifies milestones and timeframes. We expect this timeline should allow COHB enough time to design and implement a well-considered pilot. We understand that the current kerbside collection contract with Solo will expire in 2021. We recommend that the COHB request pricing in the kerbside collection tender documentation for the pilot kerbside model in case the council wishes to provide these options to residents upon completion of a successful pilot.

Step	Timeline
1. Confirm pilot design	May 2020
2. Lead-in communications	June to mid-July 2020
3. Procure bins and equipment for pilot	June to September 2020
4. Recruit champions	July to mid-August
5. Pre-trial audit and bin inspections	early August 2020
6. Doorknocking and sign up of households to participate voluntarily	late August 2020
7. Start pilot	September 2020
8. Intense resourcing to support roll out and manage any queries/ complaints	September 2020
9. Mid-pilot survey, bin audit and evaluation	March 2021
10. Report to council and project review (including outcomes and costs if continued to service the piloted households)	April 2021
11. End-pilot survey, bin audit & evaluation	August 2021
12. Pilot end and final assessment of outcomes and recommendations to council	September 2021

Communications and community engagement

Communications and community engagement is central to the pilot's success. This may include:

- **Community forum:** to engage residents in the project, its aims, identifying any potential barriers and receiving input into the pilot design. This forum may help build ownership and support for the pilot. In addition, this may involve identifying pilot champions (e.g. a family with kids in nappies, a young couple, a retired single, etc) who are happy to actively promote the campaign and feature in communications materials. Members of the community forum could be invited to provide ongoing feedback throughout the pilot.
- **Councillor workshops:** it is important that councillors support and become champions of the pilot. We recommend holding workshops to inform councillors about the pilot, the benefits, any potential challenges/risks, etc.
- **Staff training:** this includes training of phone staff, education officer(s), to ensure they can respond to resident queries about the pilot.
- **Waste & recycling collection contractors:** this includes liaising with waste and recycling contractors to ensure smooth delivery of the pilot.
- **Schools:** there is an opportunity to engage school kids in the pilot. This may involve running a competition with school kids.
- **Promotion of pilot:** including developing materials/letter drops to let residents know about the pilot. This may include advertising the upcoming pilot via social media and print.
- **Ongoing support:** it will be important that residents to be able to easily contact council to ask questions about the pilot and receive support as needed. Important channels for delivery of this information include council phone line, emails, website and Facebook page.
- **Community feedback:** including surveys mid-pilot and at the end of the pilot to gauge their experiences with the pilot and whether they would like to see it continue.

Resources and costs

The table below provides a breakdown of estimated costs for running the pilot. This includes costs for:

- Communications materials
- Community engagement (e.g. workshops)
- Community surveys (during and post pilot) to receive feedback
- Physical bin audits
- Consultancy support
- An allowance for the supply of compostable bags and caddy's
- An allowance for supply of bigger bins for those residents wishing to upsize their comingled (360 litre) or get an extra general waste bin
- Council project officer/project management of pilot (0.75 FTE)

We estimate that the pilot will cost \$195,800 ex GST. This includes costs for communications materials, community engagement (including workshops and doorknocking), community surveys mid and at the end of the pilot, physical bin audits, consultancy support, compostable bag supply, kitchen caddies (to any households that don't have one), bins, project management/ support and waste contractor costs. In addition, an extra \$35,000 of in-kind support (based on 0.35FTE) is needed over 12-months for a project officer.

Please note these costs are high-level estimates and would need to be confirmed via quotes with the relevant providers.

Item	Costs (\$ ex GST)
Communications materials	\$20,000
Community engagement (e.g. workshops, door knocking)	\$12,000
Community survey (x2) - mid and end pilot	\$10,000
Physical Bin Audits (x3) - pre, mid and end pilot	\$45,000
Consultancy Support (planning, review of comms materials, analysis, report writing etc)	\$55,000
Compostable bag supply	\$5,000
Kitchen Baskets (Caddy)	\$3,000
Upsizing bins	\$5,000
Project management and support	\$20,000
Waste contractor costs	\$20,800
Total funding needed	\$195,800
Grant funding (50%)	\$97,900
Funding from Holdfast (50%)	\$97,900
COHB In kind Project Officer/ Project Management (0.35 FTE)	\$35,000
Total cost	\$230,800

Other considerations

We expect this pilot, if well-designed and implemented, will receive widespread support from the community. However, it will be important to prepare for and manage a range of challenges, including:

- **Managing nappy waste.** Residents with nappy waste face additional challenges due to higher residual waste volumes and managing odour. It will be important to help any residents with nappies participating in the pilot by providing education and support. See example communication from City of Melville overleaf. We recommend that the COHB provides residents with nappies, with the flexibility to increase the capacity of their residual bins if required. This could be done either by providing them a larger/extra residual waste bin or providing them more frequent residual bin collections. There is an opportunity for the COHB to offer subsidies for cloth nappies under their "Green Living Subsidies" program to assist residents to reduce nappy waste. We understand KESAB runs a nappy workshop "Eco Bums", which may be rolled out as part of COHB Green Living workshops to also assist residents to reduce their nappy waste.
- **Leadership.** The COHB Mayor and Councillors can play an active role in supporting the pilot. When the Bega Valley Shire Council changed their kerbside model, the Mayor, Cr Kristy McBain, starred in the media as a relatable resident who forgot to put her bins out (see overleaf). There is an opportunity for COHB Councillors and the Mayor to put their faces to the campaign as relatable residents, so it doesn't come across as a decision made by "faceless" council.
- **Visual bin inspections.** In addition to the steps above, the COHB may focus their existing program of visual bin inspections to the pilot area. This would provide further insights on whether households are correctly sorting their waste and identify where additional support and education is needed.



Image: flyer about managing nappy waste from the City of Melville.

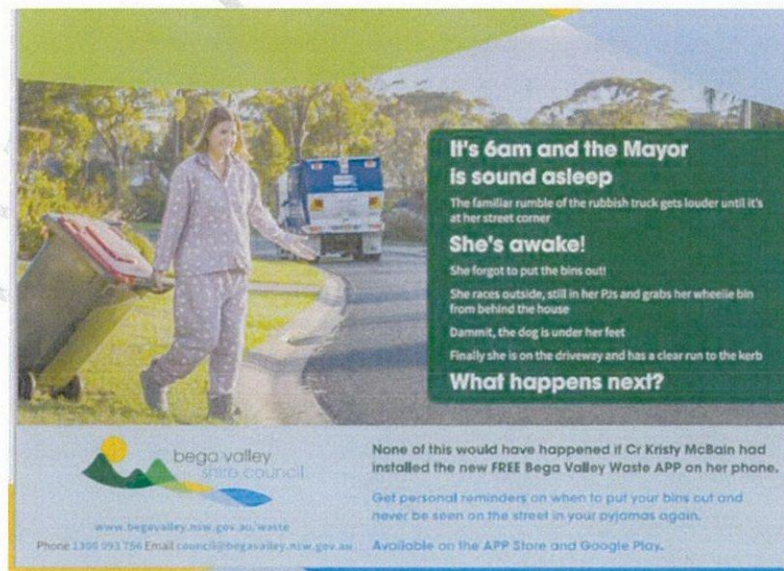


Image: flyer from Bega Valley Shire Council about the mayor forgetting to put out her bin, promoting the council's app to remind people about collection days.

Longer-term considerations

We expect this pilot will deliver a kerbside model that is both more environmentally sustainable and cost-effective than the current offering. This kerbside model also provides for more regular collections and convenient options for residents to recycle their food waste. This model would be better suited to the waste profile of most households and reduce odours.

However, as noted, it is important to recognise that 'one size does not fit all' households. Therefore, we recommend that any broader roll includes options for choice and flexibility for households that would like extra services:

- To ensure equity of servicing, this could potentially be provided at cost. For example, households who do not want to recycle their food waste (e.g. via FOGO bins or home compost system/other) could request extra servicing of their residual bin for a fee.
- However, some households cannot reduce their residual waste (e.g. families with nappies). In cases where there is a genuine need, we recommend that the COHB offers them additional servicing at no extra cost. This could be managed via an annual renewal process.



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