

### **3 Presentation of officer reports**

#### **3.1 FOGO Service**

##### **Abstract**

Council has planned over many months for the introduction of a new Food Organics and Garden Organics (FOGO) kerbside collection service which is scheduled to commence on 4 May 2020. The new FOGO collection service will enable residents to put both garden and food waste in the same kerbside collection bin. This will be collected by Council and rather than being taken to landfill will be processed at a facility where it will be composted and converted into soil conditioning products.

By diverting food waste to the new FOGO collection, Council will reduce its landfill waste by up to 19,000 tonnes per year and avoid thousands of tonnes of harmful greenhouse gas emissions produced over the life of the landfills used by Council.

This report presents the service changes required to implement and operate a successful FOGO service that maximises the diversion of waste from landfill. Information about the detailed implementation of FOGO will be provided to all residents via the February edition of the Boroondara Bulletin, and has been prepared for distribution as outlined in this report.

##### **Officers' recommendation**

That Council resolve to endorse the implementation of a Food Organics and Garden Organics kerbside collection service on the following basis:

1. Commencement of Phase One for all single residential dwellings and multi-units of up to four dwellings from 4 May 2020;
2. Commencement of Phase Two to other multi-unit dwellings where Council currently provides service to be completed by 30 June 2021, noting existing services will remain in place until FOGO is commenced;
3. Change of weekly garbage collection to a fortnightly collection and collection of FOGO bins weekly from 4 May 2020;
4. Provision of kitchen caddy and caddy liners to all residents;
5. Change of existing green waste bin lids from orange to lime green; and
6. Provision of a 120 litre FOGO bins to residents that don't have an existing green waste bin.

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**Director Environment and Infrastructure**

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## 1. Purpose

This report presents the service changes required to implement and operate a successful Food Organics Garden Organics (FOGO) service in Boroondara.

## 2. Policy implications and relevance to community plan and council plan

The matters presented in this report are consistent with "the Environment" theme in the Boroondara Community Plan:

In addition the following Council Plan commitments are relevant:

- Theme 3 - The Environment - Strategies 3.1, 3.2.

The FOGO project is the key action in Council's "Waste Minimisation and Recycling Strategy". Additionally the reduction of food and organic waste being sent to landfill was identified as an action in Council's "Our Low Carbon Future Strategy – Action Plan Update".

## 3. Background

During the consultation for the Boroondara Community Plan, and the Waste Minimisation and Recycling Strategy, Council received significant community feedback that it should do more to divert waste from landfill, and the diversion of food waste should be a priority.

At present, the average Boroondara waste bin contains 46 percent food waste and 6 percent garden waste which currently goes to landfill. On this basis through the introduction of FOGO, Council will divert up to 19,000 tonnes of food and garden waste per year from landfill and avoid thousands of tonnes of harmful greenhouse gas emissions.

Landfills produce carbon dioxide and methane as the waste contained in them breaks down. Both are greenhouse gasses, with methane having more than 20 times the greenhouse impact than carbon dioxide.

A FOGO service allows residents to put both food waste and their garden green waste in the same bin to be collected by Council and taken to a facility where it is composted and converted into soil conditioning products.

FOGO been implemented in many places around the world and Australia over the past 20 years. There are currently 10 metropolitan Melbourne Councils operating some type of FOGO service, and at least another 10 planning towards implementation of a FOGO service in the 19/20 financial year. There is a sound body of work and evidence base about what attributes comprise an effective and successful FOGO service. A best practice FOGO system comprises the following:

- A weekly collection of FOGO waste by Council.
- A fortnightly collection of residual garbage by Council.
- Provision of kitchen caddies to residents.
- Provision of compostable caddy liners to residents.
- A comprehensive education program.
- Support with food waste avoidance and home composting.

## 4. Outline of key issues/options

### **Commencement and rollout**

Phase One of the rollout, will address all single residential dwellings, and multi-unit developments (MUD's) of up to four dwellings. This will cover approximately 55,000 dwellings of the 63,000 which currently access Council's waste services. Phase One will commence on 4 May 2020.

Phase Two, will include the remaining MUD's. There will be no changes to existing kerbside collection services until phase two rollout is complete in 2020/21.

### **Garbage and FOGO Collection Frequencies**

An audit of bin content in Boroondara shows that on average 52% of the material in the garbage stream is able to be placed in the FOGO bin (food 46%, green waste 6%). It also showed that 61% of the average bin could be diverted to other streams with an additional 9% that could be recycled. The audit also showed that waste bins are on average 71% full.

This bin content and capacity data illustrates that resident's waste disposal needs can be accommodated with fortnight garbage and weekly FOGO collections.

Research has found that the most effective FOGO services (from a landfill diversion perspective) are those that operate weekly FOGO and fortnightly garbage collections. Garbage collection frequency is a statistically significant factor in the performance of food organics participation and landfill waste diversion. Research also suggests that the issues and risks on this matter relate to managing initial community reactions to change, as opposed to there being any significant logistical, operational or service impact issues.

Implementation of FOGO in Victoria has been led by regional Councils. Accordingly, there are many examples of regional Councils that have introduced FOGO with a weekly FOGO / fortnightly waste collection frequency, including Bass Coast, Macedon Ranges, Benalla Rural City, and Wangaratta Rural City. In the metropolitan area, Nillumbik introduced the weekly FOGO / fortnightly waste collection frequency many years ago. Hobsons Bay, who commenced their FOGO service on 1 February 2020, have publicly announced the upcoming weekly FOGO / fortnightly waste collection change. The cities of Glen Eira and Yarra are currently undertaking pilot area trials for weekly FOGO / fortnightly waste collections.

Analysis of historic media reactions to weekly FOGO / fortnightly waste collection changes raise issues of odour and a reaction to a decrease in a rate funded service. On odour, if food waste is moved to the FOGO waste stream, this is the service that warrants weekly collection for reasons of odour mitigation.

The other odour perception issue relates to nappies. A "Community Nappy Trial" conducted by Lake Macquarie City Council showed that the odour of bins containing nappies at the end of a fortnight were no worse than the odour of regular general waste bins at the end of a week. Furthermore, the trial showed that odour does not significantly increase with time, nor with the number of nappies in the bin.

Regarding the issue of a diminishing of rate funded service, the proposal is to decrease collection frequency in one waste stream, and to increase in another. The impact of this change has been analysed, looking at the total bin space (volume) available to residents on a fortnightly basis. An assessment of all 69 bin combinations that exist throughout the City has been undertaken to ensure that no resident will have a reduction in bin capacity through this change. This is confirmed to be the case with the analysis showing that most residents will receive a service level increase. The table highlights some scenarios by way of example:

Garbage bin size	Green-waste Bin size	Current litres per fortnight	Proposed litres per fortnight
80	120	280	320
80	240	400	560
120	240	480	600
240	240	720	720

The ongoing financial implications of collection frequencies can be significant. Not changing any collection frequencies has minimal financial impact, but is minimally effective in delivering landfill diversion. Retaining weekly garbage, and increasing FOGO to weekly collections, would cost an additional \$2m - \$2.5m per year. These additional costs include only the business as usual elements of the garbage service such as staff, fleet, fleet maintenance, fuel, and the payment of the landfill levy to the State Government on every tonne of landfilled material. The additional investment in retaining a weekly garbage service when it is no longer required due to the diversion of over half of the contents of the garbage bin to FOGO does not offer returns of increased landfill diversion, and studies show it to have the converse effect in that it discourages the use of FOGO services.

Council's adopted budget for this project was prepared on the basis of transitioning kerbside services to a weekly FOGO and fortnightly garbage collection.

Council will change weekly garbage collections to fortnightly, and collect FOGO bins weekly from 4 May 2020, for all residents except those in Phase Two.

### **Kitchen Caddies and Caddy liners**

#### Kitchen caddies

A kitchen caddy is a small receptacle designed to put food waste in. The food waste can then be easily deposited into the wheelie bin for kerbside collection.

Research indicates that the provision of kitchen caddies to residents significantly uplifts the level of participation in FOGO programs and the diversion of waste from landfill.

Council will provide every resident with a new kitchen caddy made from 100% recycled plastic.

### Caddy liners

Caddies don't need to be lined and can be used as is and washed periodically. Alternatively they can be lined with a paper towel, which does not compromise the composting process. However, research indicates that the provision of kitchen caddy liner bags uplifts the level of participation in FOGO programs and the diversion of waste from landfill.

It is important that compostable bags, and not biodegradable bags, are used as liners. Given the research regarding landfill diversion, and the requirements for liner bags to be compostable, Council will be providing all residents with one year's supply of compostable caddy liner bags. The compostable bags will be 100% corn starch and compliant to the Australian Standard for composting.

### Ongoing supply

Given the possibility for contamination of the FOGO stream by plastic bags or biodegradable bags (as opposed to compostable bags), it is considered appropriate that Council continue to supply compostable caddy liner bags. It is proposed that these will be available for collection from Council by residents on an ongoing basis

The cost of an additional pack of 75 compostable liners is approximately \$4.75 per unit, so ongoing supply on a limited, ad hoc basis is not cost prohibitive.

Officers do not expect an ongoing annual supply to all residents to be required, as a portion of residents are likely to cease using liners once they start using the new FOGO service.

As the kitchen caddies are a more durable item, and as many residents may have their own personal preferences regarding the size and appearance of the appropriate container once they have successfully started using the FOGO service, it is not proposed to provide replacement caddies to residents once the rollout of FOGO has concluded.

### **Changes to current green waste bins**

Council will change all existing green waste bin lids from orange to lime green. This will identify that the green waste bin has been changed in readiness for the new FOGO collection service. This will align the FOGO bin and lid colours with Australian Standards.

### **New Food Organics Garden Organics (FOGO) Bin**

To support the implementation of FOGO to all residential properties, with changing collection frequencies for kerbside garbage and green-waste collection services, residents that don't currently have a green-waste bin will require one. Volume and composition is not changing, however Council will be changing how it is collected.

As this change in collection method is triggered by Council a new 120 litre FOGO bin will be provided free for residents who do not currently have a 240 litre green waste bin.

## **Green-Waste Bin Fee**

Council's suite of waste services is funded via its annual Waste Charge. This charge defrays the full cost of running its waste services, including the rollout of FOGO this financial year. The schedule of fees comprising the Waste Charge are structured around the size of residents' garbage bins.

Separate, and in addition to this, Council currently has a green-waste bin fee as part of an opt-in green waste collection service to cover the supply and delivery of a green-waste bin, with the ongoing collection and disposal funded via Council's Waste Charge.

Council's core waste service is the provision of kerbside garbage and recycling collections. The collection of green-waste is an additional service, for which approximately two thirds of residents have opted in over time and have paid the Green-Waste Bin Fee to access the service.

The rollout of FOGO (including the provision of 120 litre FOGO bins for residents who do not have green-waste) does not change this. It is proposed that the current fee structure remain for residents who request a size upgrade to/or an additional 240 litre bin for green-waste.

This proposition has been tested against a range of scenarios and is considered the fairest method of rolling out FOGO, providing an ongoing suite of waste services, and levying fees and charges to recover waste costs. These scenarios include the following:

### People who request a green-waste bin between now and FOGO rollout.

These residents can be responded to with clear communication and advice between now and March 2020 explaining that a 120 litre bin will be delivered to them without charge if they don't have a green-waste bin. Residents can then assess their need to upgrade to a 240 litre bin for a charge.

### People who have already paid for a 240 litre green-waste bin

Residents who receive a 120 litre bin are receiving it as part of a collection change instigated by Council, and not as an additional level of service.

Bin size increases to accommodate green-waste continue to be a fee based upgrade.

## **Summary of FOGO Related Changes**

In summary, the elements, attributes, and service changes required to implement and operate a successful FOGO service that maximises the diversion of waste from landfill are:

1. Commencement of Phase One, for all single residential dwellings, and multi-units of up to four dwellings, from 4 May 2020.
2. Phase Two to be implemented to other multi-unit dwellings, and completed in 2020/21, noting existing services will remain in place until FOGO is commenced.
3. Change weekly garbage collection to fortnightly and collection of FOGO bins weekly from 4 May 2020.

4. Provision of kitchen caddy and caddy liners to all residents.
5. Change of existing green waste bin lids from orange to lime green.
6. Provision of a 120 litre FOGO bins to residents that don't have an existing green waste bin.

## **5. Consultation/communication**

Extensive community consultation occurred as part of the Boroondara Community Plan and the development of Council's "Waste Minimisation and Recycling Strategy". This consultation showed significant community interest in implementing landfill diversion initiatives as a priority.

Councillors were briefed on this matter on 29 March 2019, 9 September 2019, and 2 December 2019.

## **6. Financial and resource implications**

The financial impacts for 2019/20 are expected to be of a quantum that can be absorbed within the FOGO implementation budget.

## **7. Governance issues**

Officers preparing this report have no conflicts of interest or concerns relating to the Human Rights Charter.

## **8. Social and environmental issues**

There are significant positive environmental benefits associated with the rollout of the new FOGO service, which will substantially reduce the greenhouse gas emissions generated by the waste produced by Boroondara residents.

## **9. Conclusion**

It is recommended that Council resolve to note the report and endorse the "Summary of FOGO Related Changes" described in the report.

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