

# Hobsons Bay kerbside waste and recycling

## One-year Review

June 2021

**HOBSONS  
BAY CITY  
COUNCIL**



## Hobsons Bay kerbside services: one-year review

Hobsons Bay City Council acknowledges the peoples of the Kulin Nation as the Traditional Owners of these municipal lands and waterways and pays respect to the Elders past, present and emerging.

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## Executive summary

The waste and recycling industries have seen enormous changes in recent times as a result of new State and Federal regulations and policies which have responded to a growing crisis in the sector. One of the early consequences of the crisis was the collapse of SKM in July 2019.

SKM was Council's comingled recycling provider. In response to SKM's collapse and the wider sector changes that were in train, Council introduced a four-bin kerbside waste and recycling service in February 2020. Council's new four-bin service is aligned with new State requirements, and is meeting Council's core objectives to reduce waste to landfill while providing an efficient and cost-effective service to the community.

This report considers the first full year of operational outcomes against council and State objectives and priorities. Importantly, it incorporates in-depth analysis of extensive community feedback on the program. All four streams of the service to households and businesses are covered, to determine what is working well and what can be improved.

### A rigorous and extensive consultation process

Extensive engagement was an essential part of the review. As a major checkpoint on one of Council's most essential services, the cornerstone of the review was a statistically representative phone survey undertaken with 500 residents (this provides feedback with a 95 per cent confidence interval). An opt-in version of the survey was also offered to ensure all residents had the opportunity to be heard. A similar survey was undertaken with Hobsons Bay businesses. In addition, 82 in-place consultations were held with staff attending 14 locations across the municipality to hear from residents in their daily lives. Three targeted focus groups were also held.

Overall, the survey feedback was very positive, with some clear areas of frustration with opportunities for improvement. A key aspect of the engagement was the difference between the statistically significant phone survey of a random sample of residents, and the opt-in online version of the survey. The difference was reasonable and consistent, with respondents to the opt-in survey on average less satisfied than the random sample. Survey experts Metropolis designed and delivered the surveys, and advise that the random sample survey is the most representative of the entire community's feedback on the service.

#### **Phone survey best reflects community sentiment**

Research specialist Metropolis who undertook the survey work advises that the phone survey of a random sample of 500 residents is the most reliable indicator of overall community sentiment in Hobsons Bay. This feedback is at a 95 per cent confidence level. The opt-in online survey also provides very valuable feedback from residents who were motivated to provide feedback. Metropolis advises this is a very common outcome with opt in surveys.

### Key outcomes and recommendations of the review:

Two main changes are recommended to the current service, and discussed in further detail throughout the report:

- Extend the current 'free upsize' to a 240L general rubbish bin to all households.

- Pilot a paper bag for FOGO, as a precursor to extending to all households.

These options address the biggest pain points of the system for the community, being volume in the rubbish stream and use of bags in the FOGO stream while still meeting the need to reduce landfill and not significantly increase operational costs.

There are six broad observations coming out of the review.

**Engagement:** The review achieved a high rate of community engagement with around 6,000 respondents. Around 86 per cent of residents are satisfied with the service overall, and there is a significant group within the community who are particularly dissatisfied with the current standard general rubbish service.

**General rubbish:** While the new service achieved a 33 per cent reduction in waste to landfill, around 40 per cent of households' needs are not being met by the standard 120L garbage bin. The report recommends that the current 'free upsize' to a 240L general rubbish bin that was introduced on a temporary basis during COVID lockdowns be extended to all households on an ongoing basis. This options retains the gains of the new service in diverting substantial FOGO volumes from landfill, while supporting households that need more volume in their general rubbish stream.

**Food Organics and Garden Organics:** There has been good uptake of the food and garden waste service, which accounts for the bulk of the diversion from the general rubbish stream. There are some barriers that many residents experience around odour and mess from food organics, in the absence of compostable bags. There are opportunities to address these issues and potentially further increase the recovery of food organics through piloting and then rolling out paper bags to FOGO.

**Comingled recycling:** Contamination levels are high in the comingled recycling stream. The report recommends continuing to work to reduce contamination with ongoing general education programs and another round of targeted bin checks. Council will continue to work with our comingled delivery partner to increase local recycling options for more products.

**Businesses** A small number of Hobsons Bay businesses (16 per cent) currently utilise Council's waste and recycling service predominantly for general rubbish and comingled recycling. The report recommends allowing businesses to opt out of using one or more bins to reduce misuse and storage requirements of unused and unwanted bins. This is recommended alongside consideration of stronger enforcement or removal of service in hotspot areas.

**Glass recycling:** Glass recycling is improving the recovery rates of comingled materials, and providing a separate resource stream. Contamination is low, and the community is largely supportive of the new collection stream.

A range of opportunities for change were considered, following community and council feedback. These include options (and combinations of options) such as: reintroducing a weekly garbage service for part or all of the year, switching FOGO to a fortnightly service for all or part of the year, more limited access to a free garbage upsize, and a free upsize to 240L of any one stream for each household.

While these other alternatives have not been recommended, further information on these options is detailed in Table 1 on page 27 of this report.

## Purpose and scope of review

Council's new kerbside waste and recycling program has been in operation since February 2020. The program was rolled out in the context of a crisis in the waste sector following SKM's collapse. As a result it drew on extensive previous community consultation on the Waste and Litter Strategy 2025, and some fast, opt-in feedback run via Council's Participate consultation page and provided through a range of other forums.

An interim review of the program was considered in June 2020, in the midst of the first COVID-19 pandemic lockdown, with Council endorsing ongoing monitoring and review of garbage performance data and volumes over the first year of the service. Following a full year of operation, this review considers the performance outcomes of the first year of operation and the community's feedback on the new program.

The purpose of the review is to assess the current service offering and the outcomes of the program against council and State objectives and priorities alongside a much more thorough engagement with the community now the program is established.

The *Kerbside Waste and Recycling Service Review* covers all four streams of the kerbside service, which is a mandatory service for households and an opt-in service for businesses. It considers:

- Capacity, frequency and performance of each stream
- System outcomes
- Community attitudes and behaviours

A key consideration of the review is satisfaction with the new system by both household and business users. The review included an extensive community engagement process with feedback from around 6,000 respondents. Detailed information on the engagement is provided through this report and the appendices. The survey aspects of the engagement included both phone surveys undertaken with a statistically significant sample of residents and businesses, as well as opt-in surveys for both residents and businesses.

The review was undertaken in the first half of 2021, in parallel with the 2021-22 council budget process. Cost implications of the recommendations of the review have not been reflected in the 2021-22 Waste Service Charge, and if implemented will be caught up through future Waste Service Charge increases.

## Kerbside waste and recycling, influences and impacts

Council's new kerbside recycling and waste service commenced in February 2020. The service brought forward key elements of Council's Waste and Litter Management Strategy 2025 (adopted August 2019). The strategy sets out a vision to provide leadership and empower the community to deliver innovative and collaborative solutions to waste and litter management within Hobsons Bay. Development of the strategy coincided with the China Sword crisis and SKM Recycling collapse. The strategy provided a response to the recycling crisis, which resulted from SKM Recycling closing down, and strong community responses seeking Council to act swiftly to develop a solution to this crisis and strengthen recycling in Hobsons Bay.

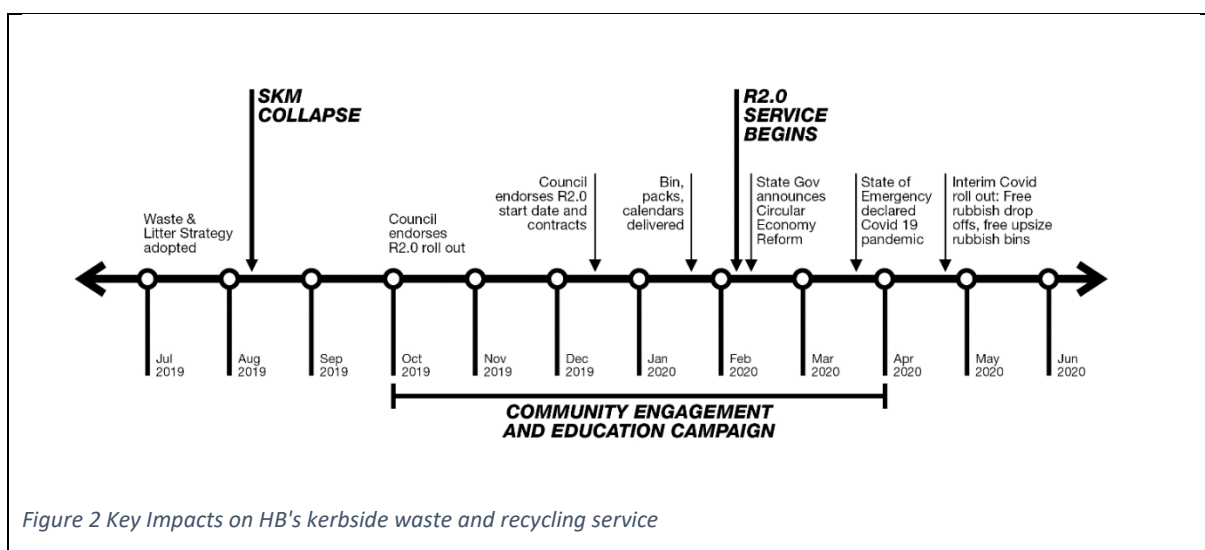
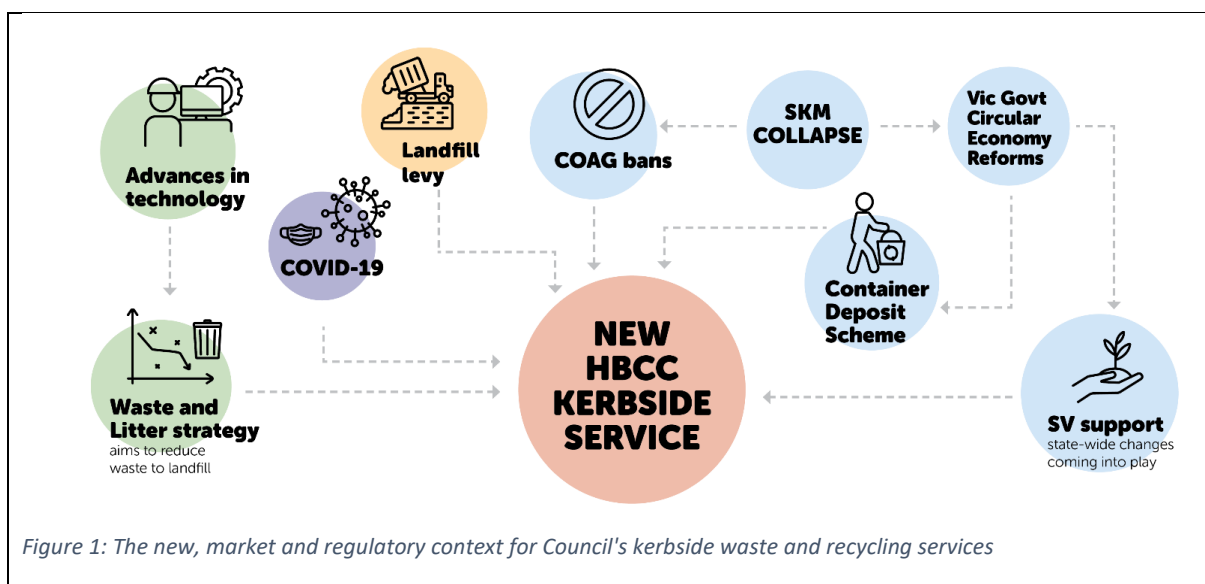
Bringing implementation of the new recycling and waste program forward enabled a response to the SKM Recycling crisis and strong community feedback seeking Council act quickly to develop a sustainable recycling solution for Hobsons Bay. On 8 October 2019, Council endorsed the immediate rollout of a revised waste and recycling service, including four bins for kerbside source separation, a focus on local recycling and resource use, a revised kerbside collection schedule, and an intensive community engagement program.

The SKM Recycling crisis revealed systemic problems in the recycling sector and presented an opportunity to accelerate localised sustainable solutions in Hobsons Bay. The market and regulatory context has significantly changed in response to the recycling crisis. Council’s new kerbside program delivered a new waste and recycling service with substantial changes in the context of significant sector and all level government change (Figure 1).

The aims of the new waste and recycling service include:

- Reduce the amount of waste being sent to landfill, with a focus on food waste that made up approximately 35 per cent of the weekly garbage stream
- Diversify and implement local solutions with local suppliers and local markets that can adapt to change. Expand the types of items accepted in the recycling stream over time.
- Improve the quality of recyclables

The aims and approach align with the directions of the Victorian Government’s circular economy policy, *Recycling Victoria, a new economy*, announced in February 2020.



## Recycling Victoria, a new economy

The State Government released the *Recycling Victoria, a new economy* policy as part of the circular economy reform introduced in February 2020. A circular economy seeks to design out waste, reducing the environmental impacts of production and consumption whilst enabling economic growth through reuse of materials and products. The reforms address the increasing volume of waste, and aim to deliver a State with reduced waste and pollution, and improved recycling outcomes whilst also creating a stronger economy. The reforms include requiring all councils to move to a four-bin service by 2030.

As more councils come on board to the four-bin system, there will be greater consistency across the state supported by state-wide campaigns to reinforce and promote recycling objectives. The policy includes targets of a 15% reduction in waste generation per capita and increase of waste recovery to 80%.

## COAG bans

The Council of Australian Governments (COAG) imposed export bans on waste paper and plastics, which impact the way waste and recycling is processed in Australia. The bans will be implemented in a phased approach with all bans in effect by July 2024. The bans respond, amongst other drivers, to the introduction in 2018 by China of its National Sword Policy which restricted recyclable material imports. The bans aim to boost Australia's onshore processing and manufacturing and drive local technological advancements in resource recovery and recycling.

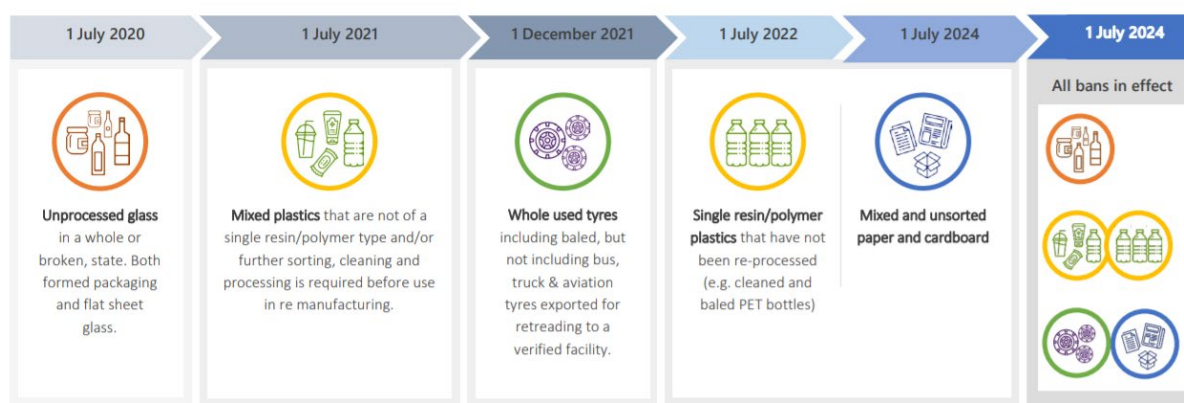


Figure 3 COAG Waste Export Bans Response Strategy: Waste export ban timetable

## Landfill levy

The cost of Victoria's landfill levy is increasing each year and will almost double by 2022-23 (see Figure 10: State government landfill levy over time (\$ per tonne) for the landfill levy cost over time). The increasing landfill costs have a significant impact on waste budgets across all Council's state-wide. Reducing volumes collected through the kerbside system provides improved environmental outcomes and reduced budget implications.

Council's Waste and Litter Management Strategy 2025 outlines the aim of increasing the amount of waste diverted from landfill from the household waste service to 54 per cent by June 2022. The first year of the new program has diverted 33 per cent of waste from going to landfill. Opportunities to further reduce the amount going to landfill and minimise the impact of the increasing landfill levy will continue to be explored.



### Impacts and variables in 2020:

The new service was introduced one month prior to the first Victorian lockdowns in response to the Covid-19 pandemic. The pandemic has changed the way we live, particularly in Victoria with reports indicating a 10-to-20 per cent increase<sup>1</sup> in rubbish and recycling volumes as a result of stay-at-home measures. Extensive engagement programs were undertaken to inform and educate the community on the changes introduced by the new kerbside program. Implementation of the new service was impacted by the lockdowns with face to face engagements revised to online where possible and increased social media and print engagement undertaken.

#### **Hobsons Bay has one of the lower Waste Service Charges**

Based on financial benchmarking of Victoria's 79 councils and looking at waste charges, Hobsons Bay sits in the lower quarter. While there are differences between councils, in tailored offerings (e.g. upsizing or downsizing, opt-in streams, etc, in every municipality), this is a good indication that Hobsons Bay (being an early adopter of the new four-bin system) is offering better value to its residents than many other councils.

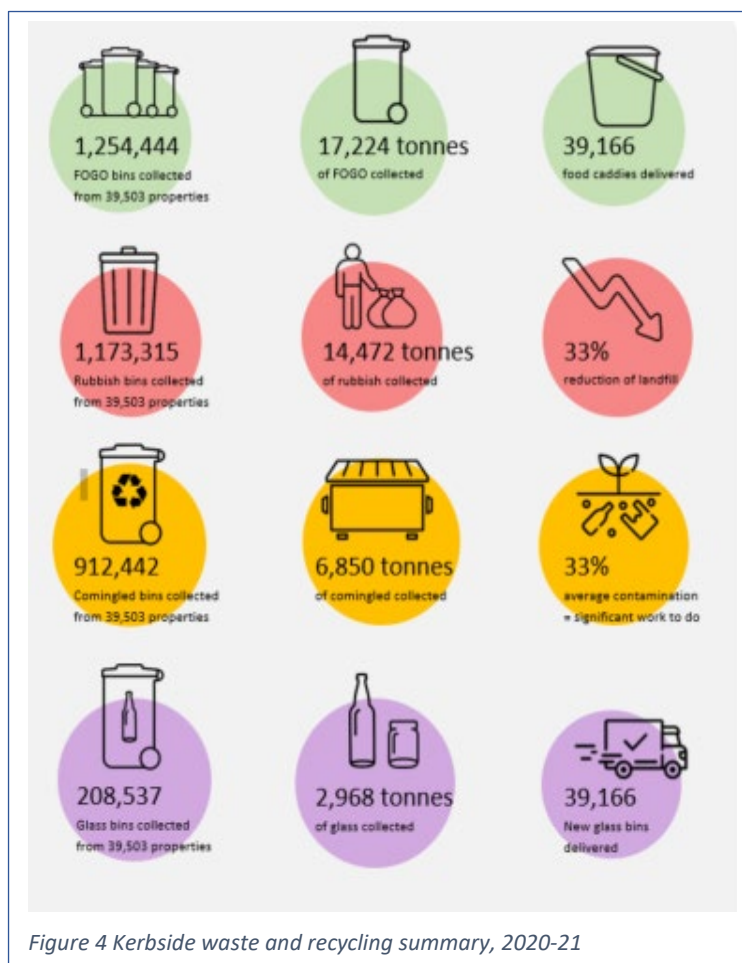
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<sup>1</sup> Australian Council of Recycling: 'Coronavirus pandemic sees household waste rise with resurgence of single use plastic', ABC, August 2020 & 'Lockdown's a load of rubbish: Recycling fear as household waste spikes', SMH, April 2020

## Key performance outcomes from the four bin service

The first year of Council's new kerbside waste and recycling program has:

- Reduced landfill by 33 per cent 7000 tonnes
- Increased FOGO by 9,500 tonnes (124 per cent)
- Increased comingled recycling by 11 per cent
- Highlighted contamination issues in the comingled stream
- Introduced a dedicated glass recycling stream with 2,968 tonnes collected with very low (less than five per cent) contamination rates
- Achieved an excellent satisfaction level for a first year change, with 86.4 per cent of residents satisfied overall with Council's service (i.e. rated satisfaction at 6 or more out of 10)



The new program introduced significant change, including introduction of FOGO to all households; a new dedicated glass

bin; revised frequency of collection for the general rubbish stream; and reduced items accepted in the comingled stream. Given the extent of change, the performance outcomes of the initial months indicate a transitional period borne out in the data across all streams. Extensive engagement programs were undertaken to inform and educate the community on the changes; however, these were impacted by the Covid-19 pandemic lockdown restrictions.

Setting aside the first few transitional months the new service has seen a significant reduction in landfill of 7,000 tonnes or 33% annually. Figure 5 below shows the reduction in landfill alongside the significant increase in FOGO. Figure 6 indicates the settling of volumes in the general rubbish stream following the initial transitional months.

One of the highest impacting changes of the program (based on community feedback) was the change to the rubbish stream collection frequency. With the introduction of a weekly FOGO and increased recycling collections the new program changed the collection of rubbish from weekly to fortnightly. This change has elicited the highest amount of feedback. Bin fullness checks indicate approximately 80 per cent of bins had sufficient capacity. However, given the base service is based on 120L bin capacity adjusting this analysis to include households who have upsized to a 240L bin approximately 40 per cent of households are struggling with the 120L bin capacity. This aligns with the presentation rates of the vast majority of households who present their rubbish bin every collection cycle. As a result of the Covid-19 pandemic lockdowns a free upsize to a 240L bin was offered to all large households of four or more and those with medical needs. Of the just over 8,000

eligible households that qualify for a free upsize 59 per cent (just under 5,000) have responded to the offer.

The random sample feedback indicates the majority of residents are satisfied with the general rubbish stream service, with the current system the most preferred by respondents. As noted previously, the opt in survey records lower levels of satisfaction on most topics including the general rubbish stream, as respondents are those most motivated to provide feedback (ie, most satisfied or dissatisfied). However, a number of respondents are dissatisfied with the size of the general rubbish bin, and not all of these indicated they are prepared to pay additional costs to have a larger bin. Key satisfaction data included:

- An average satisfaction score for bin sizes of 6.54 out of 10.
- An average rating of bin collection frequency of 6.44 out of 10.
- 62.2 per cent of respondents indicated that they would prefer a fortnightly garbage service if the bin was 240L.

Figure 5: General Rubbish Summary, satisfaction and preference, Metropolis Research

	Online Survey (Score out of 10)	Random Survey (Score out of 10)
<b>Bin Size Satisfaction (Average)</b>	4.97	6.54
<b>Collection Frequency Satisfaction (Average)</b>	4.60	6.44
<b>Preferred Collection Frequency if 240L bin</b>	Online Survey (%)	Random Survey (%)
<b>Weekly</b>	39.4	34.5
<b>Fortnightly</b>	49.4	62.2
<b>Monthly</b>	7.6	3.3
<b>Other</b>	3.5	0.0
<b>TOTAL RESPONSES</b>	<b>5,182</b>	<b>500</b>

The introduction of a weekly service would have a cost for every household of in the order of \$40 per year (increasing further as the landfill levy increases). This is one of the factors that has been considered in weighing up the recommended approach with the garbage stream to retain a fortnightly service with a larger capacity.

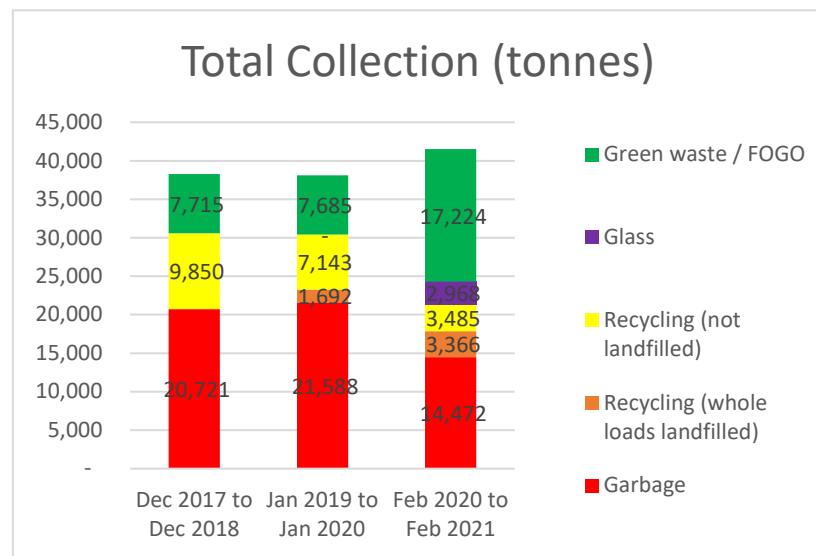
The new kerbside program introduced the collection of food organics as a new service across the municipality and the collection of green organics to all households. The previous service was offered as an opt-in green only collection service, with over 60 per cent of households registered as opting into this service.

There has been a good uptake of FOGO resulting in a significant reduction in the volume of landfill.

Figure 6 indicates an increase of 9,500 tonnes or 124 per cent annually. The increase is likely to be higher than a normal year, given the impact of COVID-19 lockdowns (more people at home generating food waste during the day, and potential more time gardening), combined with an unseasonably wet summer.

The new kerbside service did not change the volume or collection frequency of the comingled stream however, the items that were accepted in the comingled bin did change. The review has highlighted the need for significant ongoing work to reduce contamination in this stream. Education and contamination assessment programs including bin inspections, truck audits and communication campaigns are resulting in improved contamination outcomes (on average from 38 per cent contamination to 33 per cent contamination, equating to a roughly 13 per cent reduction), however, it will take time.

Figure 6: Total collection volumes, showing decreased landfill and increased recycling



The initial transitional months of the new service saw significant glass contamination in the comingled stream. Data after April shows low glass contamination, as the community adjusts to the new requirement of separating glass. Comingled volumes once adjusted to include glass (which was previously included in the comingled bin) show an increase of 11 per cent volume.

The weekly 120L FOGO service is preferred by the majority of residents. While the uptake of FOGO has been high there is also concerns about odour and mess with the service not accepting compostable bags. This is exacerbated by the fact some other councils (with alternative FOGO recycling partners) do accept compostable bags.

The service introduced a new glass only bin for all households. After the initial transitional months where glass contamination was high in the comingled stream the glass service has been positive. Glass has very low contamination rates and high community satisfaction levels. The presentation rates are low for glass bins with 58 per cent of residents not presenting their bin each month indicating there may be an opportunity for sharing options for some households, for example multi-unit developments may not require a bin per unit. There is also an opportunity to continue to explore higher end use of the collected glass.

Council's kerbside service is designed to meet the needs of residents. However it is also offered to businesses as an opt-in service. Most businesses do not use Council's waste and recycling services as it does not meet their needs. For many of the 16 per cent of businesses who do use the service, many have requirements that differ from residential needs with feedback with higher utilisation of the general rubbish and mixed recycling bins. Contamination assessments of comingled commercial bins indicate similar contamination levels to residential bins apart from slightly higher glass contamination. An issue for some businesses is storage of bins, with frequent complaints about visible contamination, amenity issues, and bins accessible in laneways leading to increased contamination and illegal dumping.

## Community feedback

### Recommendation:

Council acknowledges a very high level of engagement from this process, including more than 6,000 individual responses. Overall strong satisfaction with system, with improvements identified to better meet the needs of all households.

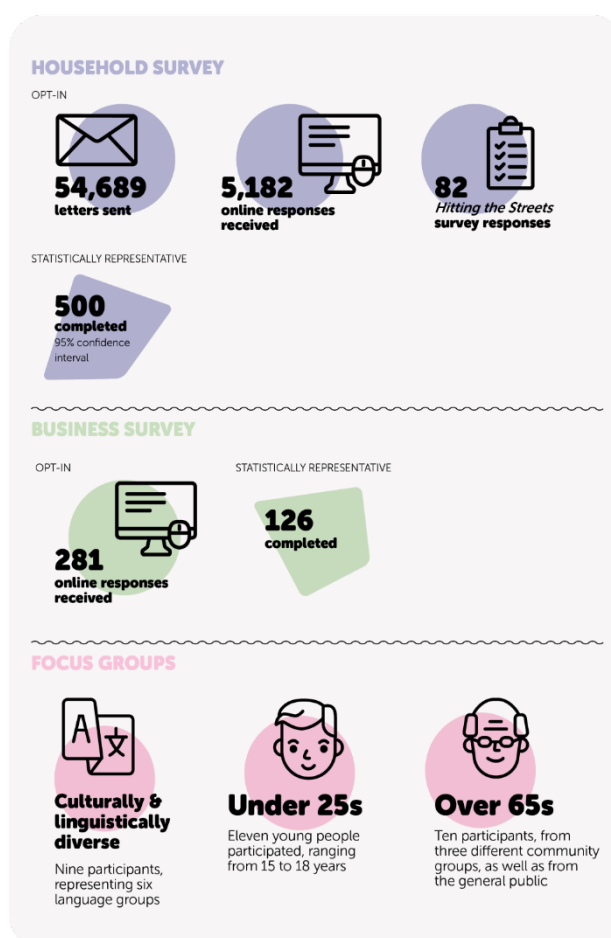
Community feedback informs all decisions affecting Council services. Community views are reflected in the principles of the *Waste and Litter Strategy 2025* and the practice of being early adopters of a four-bin service in Hobsons Bay to address the recycling crisis and opportunities to reduce waste to landfill.

Council's four-bin service has been in operation for just over a year. Transitional issues – of major behaviour change and operational efficiencies – are largely behind us. The service is now embedded, albeit one of many services effected by the pandemic and lockdowns. After a year of service, community views were again sought to inform this review.

## Consultation outcomes and method

Figure 7 Key consultation methods and outcomes

- Achieved a high rate of engagement, with more than 6,000 individual respondents through a variety of methods
- Random household survey, with statistically relevant sample, with 95 per cent confidence interval
- Opt-in online household survey, one of the highest response rates of recent surveys
- Both surveys indicate the significant majority of residents report 'good' to 'very good' satisfaction levels with the overall service (average of 7.48 out of a potential 10 from random household survey respondents).
- Responses show a clear difference in sentiment between those who are highly engaged with waste and recycling and those who are more passive users.
- There is a subset of the community dissatisfied with the current standard general rubbish service.



The results show that the community is positive about the kerbside service, and that there is a segment of the community who are less satisfied – offering room for adjustment.

## Methods and outcomes

To promote the opportunity to contribute feedback through the online survey, Council conducted the following activities set out in a Notice of Motion (Feb 2020), Figure 8: Notice of Motion (9 February 2021). Council also undertook a range of further engagement activities, including a statistically significant random sample phone survey, extensive in place consultations with residents in locations across the municipality, and several focus groups.

*Figure 8: Notice of Motion (9 February 2021)*

As one part of the Recycling 2.0 review, Council:

1. Ensure that all members of the community are aware of the opportunity to provide input as part of the review of our Waste and Recycling system by sending a mail out to all residents and ratepayers providing the link to an online survey.
2. To minimise consultation costs while still enabling households without Internet access to participate, on request (e.g. by phone or in-person), provide a hard copy survey and a reply-paid envelope by mail to residents / ratepayers.
3. Ensure the online survey has a mechanism to limit responses to one per household while maintaining anonymity (e.g. unique login code).
4. Make arrangements to enable non-English speakers, as well as other people who may need additional support, to understand and respond to the survey.
5. Ensure the survey includes questions to understand:
  - a. Household demographics including suburb, dwelling type, number of residents per household, age and any circumstances that have a particular impact on waste and recycling needs (e.g. babies in nappies; health needs; pets)
  - b. Satisfaction rating overall for the waste and recycling system, as well as for each of the four waste and recycling services/bins, including a brief description of the current service.
  - c. Desired collection frequency for each of the four waste and recycling services/bins with existing default bin sizes.
  - d. Desired collection frequency for general waste collection and FOGO if a 240L bin was provided. If weekly collection is desired with a 240L bin, seek to understand the reasons for this.
  - e. If only one bin could be collected weekly or up-sized (due to costs), what household's preference would be?
  - f. How often, on bin collection night for each bin, residents observe rubbish overflowing for either their own or their neighbour's bins
  - g. Whether residents would like compostable bags to be included in their FOGO service. If compostable bags were provided, understand whether this would impact their use of the bin / desired collection frequency for FOGO.
  - h. Willingness to pay an additional cost for more frequent general waste collection / or a bin upsize (including providing an estimate of the annual cost increase for weekly collection for each service).
  - i. Any other comments that respondents would like to make
6. Engage an expert in survey question design to, prior to distribution, review the draft survey for clarity.
7. Conduct a separate consultation to understand the Waste and Recycling needs of businesses across Hobsons Bay

## Household survey

A household survey was designed by a consultant research specialist and conducted using two methods:

1. A random-sample telephone survey of 500 respondents drawn proportionally from across the municipality, conducted by research specialist Metropolis Research, returning a 95 per cent confidence level.
2. An open-access online survey, open for completion by all residents and ratepayers of the City of Hobsons Bay, with 5,182 respondents.

There was a significant difference in the views of online respondents and randomly selected respondents. The self-selected online survey respondents were measurably and significantly less satisfied overall than the random sample survey respondents. The research specialist supporting Council on this provided the following explanation on the difference between the two surveys:

*The difference reflects the fact that residents had to make a conscious choice to log onto the Council website and complete the online survey, whereas for the residents approached to complete the random sample survey, they did not select themselves, and only had to passively agree to participate. This ensures that they are more reflective of the underlying community.*

*This is the strength of the statistically robust, random-sample research as compared to an open-access, self-selecting consultation such as the online survey.*

*There is a role for both sets of results in understanding the views of the Hobsons Bay community. The random sample survey provides a statistically robust and reliable understanding of the views of the underlying Hobsons Bay community (including being fully weighted by suburb, age, and gender). The self-selected online survey respondents reflect the views of the sub-set of the Hobsons Bay community who are more actively engaged in the issues around waste and recycling services, particularly those who have a more negative view about these services.*

**Overall satisfaction with kerbside collection services**  
**Hobsons Bay City Council - 2021 Kerbside Collection Services Review Survey**  
 (Number and percent of respondents providing a response)

Response	Random		Online	
	Number	Percent	Number	Percent
Very satisfied (8 - 10)	325	65.0%	2,215	50.7%
Neutral to somewhat satisfied (5 - 7)	128	25.6%	1,308	29.9%
Dissatisfied (0 - 4)	47	9.4%	849	19.4%
Can't say	0		810	
<b>Total</b>	<b>500</b>	<b>100%</b>	<b>5,182</b>	<b>100%</b>
<i>Average satisfaction</i>	7.48		6.75	

Figure 9: Overall Satisfaction with kerbside services. Source: Metropolis Research.

### Focus groups

To ensure all voices were heard in the feedback, Council ran three one-hour sessions targeting harder-to-reach segments of the community including culturally and linguistically diverse (CALD); over-65s; and under-25s.

These sessions were adapted from the household survey questions. They were conducted by a consultant research specialist along with Council officers.

The focus groups provided additional input including:

1. Over-65s, with 10 participants representing three community groups and the public

- Echoed the general compostable bag feedback; seeking options for soft plastics collection; weight of glass bins; creating a narrative to explain costs of the waste and recycling services.
2. Culturally and linguistically diverse, with nine participants from six language groups  
Suggested targeted promotion of the service; more information on the collection schedule as well as what to put into the bins; and concerns regarding renters whose landlords are unwilling to pay for increased service, locked into standard service offering.
  3. Under-25s, with 11 young people ranging from 15 to 18 years in age  
Suggested customising the Recycling 2.0 phone app; bin security issues; and useability to encourage FOGO bin usage.

### In place, Hitting the Streets consultations

To provide an additional forum for feedback Council officers went out to 14 different locations (shopping hubs, parks, foreshore, school drop areas) and asked random passers-by a set of five questions. Answers were captured anonymously from 82 individual sessions. Feedback from these sessions indicates overall satisfaction and satisfaction with the four bin streams is positive: Glass recycling 7.7, Mixed recycling 7.6, Food and garden waste 7.4, General rubbish 6.8 with Overall satisfaction 7.3. The overall satisfaction levels are sitting at slightly lower than the statistical survey (7.48) and higher than the online opt in survey (6.74).



### Business survey and face-to-face engagements

To understand the waste and recycling needs of businesses in Hobsons Bay and the experiences of businesses using Council's service, a survey was conducted using two methods:

1. A consultant research specialist conducted a random telephone survey of 126 businesses, 80 per cent used Council's service.
2. Council hosted an open-access online survey open to local businesses, which received 281 responses.

Council officers engaged directly with business operators in areas where waste issues are reported, and attended trader association meetings to promote the opportunity to provide feedback via the online survey.

### Key demographic insights

There were some differences in the demographic profile observed between the two household surveys including:

- The opt-in online survey respondents were notably more likely to be living in flats, units, and apartments than the random telephone survey respondents.
- Large households have been over-represented and small households under-represented in both surveys in comparison to demographic data.
- Owner-occupiers have been over-represented and renters significantly under-represented in both surveys, but more noticeable in the self-select online survey.

Whilst these slight demographic differences are important to note they are not the reason for the differing views between the online and random survey. The random telephone survey is a statistically representative survey reflecting the views of the entire Hobsons Bay community. The opt-in online survey reflect the sub-set of the community who are sufficiently engaged (often, but not always negatively) with the issues around kerbside collection services.



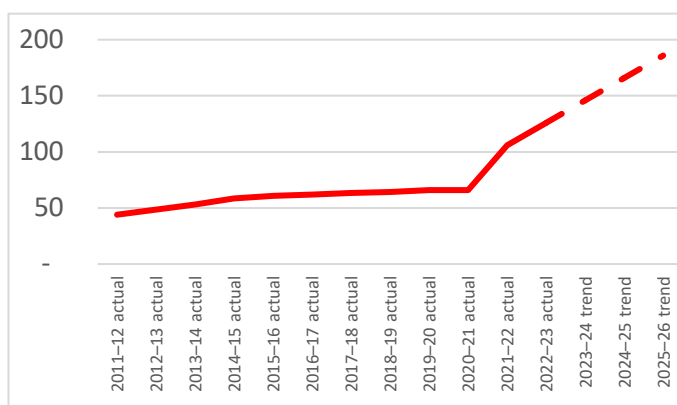
## General rubbish (landfill) stream

### Recommendation:

- That the option to switch to a 240L general rubbish bin at no additional charge be extended to all households.

The overarching goal of the Hobsons Bay *Waste and Litter Strategy 2025* is “to set directions and innovative actions for waste and litter management in Hobsons Bay which focuses on avoiding, reusing and recycling waste and litter rather than disposal to landfill”. This reflects the growing financial and environmental costs of landfill to the community.

Figure 10: State government landfill levy over time (\$ per tonne)



The State Government’s landfill levy will steeply increase the cost of landfill (Figure 10). Council is committed to introducing innovative alternatives to landfill including waste to energy (Strategy 3.1 of the *Waste and Litter Strategy 2025*), when those options come online in coming years. While it still has a significant carbon footprint, waste to energy’s carbon footprint is far lower than landfill. In a waste to energy scenario, the aim will be to reduce landfill volume.

At the local government level, the levers to reduce landfill volume are constrained as we do not control state and national supply chains and product standards. For example, for as long as plastics code 3, 4, 6 and 7 which have almost no local recycling pathways are allowed to be used for products and packaging, all those products and packaging will end up in the landfill stream.

### Kerbside review findings

Figure 11: 2021 survey undertaken by Metropolis (including statistically significant random sample and opt in online survey)

Response	General rubbish		Mixed recycling		Food and garden		Glass recycling	
	Random	Online	Random	Online	Random	Online	Random	Online
Over flowing	15.2%	26.5%	7.6%	14.0%	4.4%	4.5%	1.3%	20.0%
Full	44.8%	38.8%	49.5%	45.5%	37.6%	25.6%	14.9%	27.3%
3/4 full	25.9%	18.2%	32.0%	27.2%	25.3%	23.3%	12.1%	25.3%
1/2 full	10.7%	11.1%	9.2%	11.2%	20.3%	23.0%	24.6%	13.4%
1/4 full	2.5%	3.9%	0.8%	1.5%	9.9%	15.0%	30.8%	10.5%
Almost empty	1.0%	1.5%	0.8%	0.7%	2.5%	8.6%	16.3%	3.4%
Can't say	13	583	13	590	26	690	45	727
<b>Total</b>	<b>500</b>	<b>5,182</b>	<b>500</b>	<b>5,182</b>	<b>500</b>	<b>5,182</b>	<b>500</b>	<b>5,182</b>

While the kerbside program has achieved a 33 per cent reduction (7,000 tonnes) in annual landfill, it is clear that the reduction in volume in the landfill stream is causing a volume challenge for many households. The kerbside review has found that:

- Based on bin fullness inspections, up to 40 per cent of households' needs are not being met by the standard 120L garbage bin. This includes 22 per cent of bins that are over-full on the kerbside and 16 per cent of households that already have a larger bin.
- In the random sample kerbside review survey, 15.2 per cent of households reported that their garbage bins are overflowing (statistically significant sample to a 95 per cent confidence interval). See Figure 11: 2021 survey undertaken by Metropolis (including statistically significant random sample and opt in online survey).
- In the opt-in kerbside survey (which as noted previously reflects a level of interest from some residents, but as an opt-in survey is not as statistically robust or reflective of the entire community), 26.5 per cent of households reported an overflowing garbage bin. See Figure 11: 2021 survey undertaken by Metropolis (including statistically significant random sample and opt in online survey).

## Survey feedback

There is significant variation in satisfaction levels between the statistically representative sample and the online survey for the general rubbish bin. Metropolis suggests this is because there is a group who are very dissatisfied the general rubbish bin service.

### Capacity

Without considering cost, households report approximately a 65 per cent satisfaction level (with a 95 per cent confidence interval) with the size of the garbage bin. By contrast, the opt in survey respondents report approximately 50 per cent satisfaction. The significant difference in this feedback reflects the fact that there is a group in the Hobsons Bay community who are very dissatisfied with the small size of the general rubbish bin. See Figure 5: General Rubbish Summary, satisfaction and preference, Metropolis Research.

### Frequency of collection

Without considering cost, households report approximately 64 per cent satisfaction level (with a 95 per cent confidence interval) with the frequency of collection, compared with 46 per cent in the online survey. See Figure 5: General Rubbish Summary, satisfaction and preference, Metropolis Research.

### Feedback factoring in costs

When average per-household costs were included in the question, the survey indicates a strong preference for a fortnightly garbage service. See page 75-6 of Appendix A.

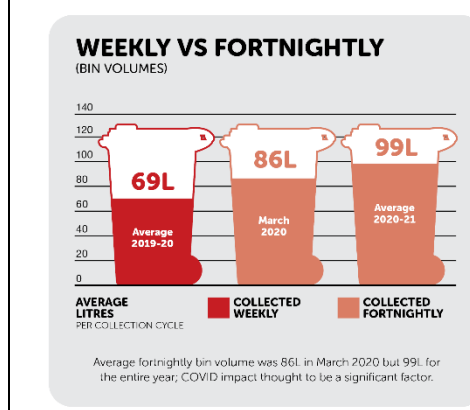
- 72.6 per cent of respondents to the random sample (95 per cent confidence interval) preferred a fortnightly 120L or 240L service.
- 60.7 per cent of the online opt in survey preferred a fortnightly 120L or 240L service.
- By contrast, only 14.4 per cent (statistically significant random) or 11.6 per cent (opt-in sample) preferred a weekly service.

## System performance

The reduction in overall landfill is a very positive outcome. At a system wide level, the average per household volume has gone from a weekly bin with 69 litres of garbage, to a fortnightly bin that has 99 litres. However, based on survey feedback and bin fullness checks, it is clear that there is considerable variation in volume between households with some households using considerably more or less than the average.

Interventions to improve the user experience of the FOGO stream may slightly reduce the average garbage volume, as some households are currently reporting they have been bagging FOGO and disposing of it in the waste stream.

Figure 12: Average bin volumes – old and new services



## Recommendation and costings:

Given the strong community feedback about the waste stream noted above, it is recommended that a larger bin be made available to all households at no additional charge. This option is lower cost than the reintroduction of a weekly service, and continues to ensure the best possible recycling and recovery rates are achieved with a continued weekly FOGO service.

There is a cost associated with a larger bin which will need to be met through the waste service charge over time. This includes two elements. First, sector leader Sustainability Victoria reports that when presented with a larger 240L bin, on average households produce 7 per cent 2 more waste than with a smaller 120L bin. This therefore increases the tonnes of volume to landfill. There is also a materially higher lift rate charged by kerbside operators for a larger bin.

The actual cost of an open free garbage bin upsize across the municipality may vary, for three reasons. First, the last 15 months included substantial periods of lockdown during the COVID-19 pandemic. During those times most households were generating substantially more waste in their kerbside bins as more people were at home during the day; waste which might normally be going into waste streams at workplaces, schools, and childcare centres. Secondly, it is often difficult to predict what actions people might take based on survey results and demographic projections. For example, with the current free COVID-19 upsize, approximately 60 per cent of eligible households have taken up the offer. Finally, the free upsize offered to households with nappies, medical needs, or four or more people living in the house during COVID-19 has already provided larger bins to many of the households experiencing the greatest need.

However, a conservative cost estimate of this recommendation is in the order of \$0.48m per year, plus a one off capital cost of \$0.37. This equates to an annual \$12 per household increase through the waste charge. This includes the following assumptions:

- A total of 40 per cent of households (approximately 16,000 households) take up the option.
- The approximately 5,900 households currently using an upsized bin (including second 120L bins, paid upsize, and free COVID-19 upsize) would not require a new bin.
- The average volume of landfill for upsizing households will increase by fifteen per cent.

<sup>2</sup> Page 24, Fig 3, Victorian Local Government Annual Waste Services Report 2018-19

## Food Organics and Garden Organics (FOGO)

### Recommendations

- Pilot the use of paper bags with a view to rolling out across the municipality.
- Increase communication and engagement on odour/mess options.
- Work with Council’s contractor to ensure all opportunities for odour and mess reduction are explored.

Council’s new kerbside program introduced the collection of food organics as a new service across the municipality and the collection of green organics to all households. The previous service was offered as an opt-in green only collection service. The number of FOGO bins in service increased by 47 per cent with the introduction of the new service. The availability of a food and garden waste service for all households has been a significant contributing factor to the reduction in landfill of the new program.

Figure 13: Mulching, Veolia



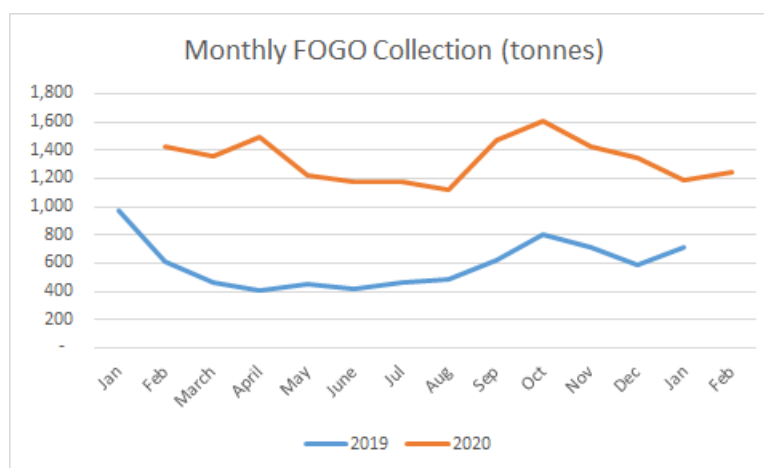
There has been good uptake of the service, with a 124 per cent increase in annual volume collected. Our processing partner, Veolia, reports low contamination rates (5.11 per cent), but also a low proportion of food (2 per cent to 6 per cent) – which means there is still an opportunity to increase the food waste through the FOGO stream and further reduce landfill volumes. FOGO collections always contain mostly garden organics, with a small portion of food organics, and this is also predicted to continue in Hobsons Bay where there is a substantial majority of homes with gardens.

Discussions with FOGO processing partners indicate the average food organics in the Hobsons Bay FOGO stream is between 2 and 6 per cent (varying seasonally), with a goal to achieve an average at the higher end of this range. Obviously, as noted, the year in review is unusual for FOGO given the impact of both COVID-19 lockdowns and an unseasonably wet summer season.

There is strong community support (69.6 per cent) for the current food and garden waste model of a 120L collected weekly. Residents prefer a weekly collection for food and garden waste to reduce the potential for odour and mess, and weekly collections are more likely to lead to higher recovery rates of food and garden waste.

Feedback received indicated some residents are not using the FOGO stream as putting food waste in bins loose (not bagged) creates mess and odour which is a deterrent from recycling

Figure 14 Monthly food and garden collection volumes



food. There is some significant seasonal variation in FOGO so many households will have fuller bins in spring and summer from garden material. However, there is clearly an opportunity for further engagement to increase use of the stream.

In particular if more options are available to contain mess and smell, there is an opportunity to recover more food from garbage and divert more waste from landfill. As well as a paper-bag trial, Council will continue to work with our contractor to ensure all opportunities for odour and mess reduction are explored.

### A FOGO paper bag pilot

A pilot is proposed to explore a range of paper bag products, and inform the full roll out of the option to use paper bags to contain food organics. It is proposed that the pilot be run as an opt in model, with participants capped at a maximum of 2,000 households, running for approximately six months. Feedback from the pilot will be used to inform a potential full roll out, and to design the full roll out model. A range of options are possible with further work to be done to confirm the right model for Hobsons Bay. These include for example:

- A user pays model where households purchase the bags they need.
- A subsidised model where all households pay for the cost of bags through the waste service charge regardless of how many they use.
- A combination model where some bags are provided free (once, or on an annual basis), with households that require additional bags purchasing them.

A range of the above models are in use across councils in Victoria. Indicative costings suggest that costs could range from a small saving through to up to \$0.5 m per year.

#### *Figure 15 From kitchen to kerbside – the use of paper and compostable bags*

Food and garden waste is relatively new in Victoria, and while councils transition to a universal service (by 2030), currently there are a variety of models in use, including opt-in.

Of 24 metropolitan councils currently offering some form of food and / or garden collection service, 13 do not accept biodegradable 'plastic' bags, while nine do. Councils that do allow bags have their own distribution models, which includes an initial supply (at no additional cost to the resident) upon roll-out of the food and garden waste service. Residents purchase their own bags thereafter.

Some Councils keep a supply available for purchase, others promote places of purchase.

While the use of plastic bags increases the likelihood of residents recycling food waste, it also leads to higher contamination.

To test whether paper bags reduce odour and mess sufficiently to increase the uptake of food recycling, with continued low contamination in Hobsons Bay, this review is recommending a trial of paper bags (which are accepted by our processing partner, Veolia) to contain food organics, with a view to these becoming a permanent option.

## Comingled recycling (yellow) stream

### Recommendations:

- Continue to work to reduce contamination in the comingled stream, including:
  - Ongoing general education program to improve community understanding of what can be recycled.
  - Another round of targeted bin checks (with supporting communication).
  - Continuing to work with comingled delivery partner to increase local recycling options for more products.

The comingled recycling stream presents the greatest ongoing challenge to the kerbside service. For many years poor quality recycling was shipped overseas with little transparency about outcomes. Council's Waste and Litter Strategy 2025 included actions around increasing local recycling, which is now being achieved through Council's partnership with APR (Council's comingled recycling contractor – Australia Paper Recovery). However, contamination levels have been high, and while education programs have had a material impact more work is needed.

### Survey feedback

Overall feedback on the comingled stream is very positive, which is unsurprising given there has been no change to capacity or frequency of the comingled stream with the new kerbside service. Approximately 87 per cent of random survey respondents report they are satisfied with the fortnightly frequency of collection (86 per cent of the opt in survey). Approximately 96.5 per cent of random survey respondents report they are happy with the 240L capacity of their comingled bins (75.7 per cent in the opt in survey). A relatively small proportion of residents report that their comingled bin is regularly overflowing (7.6 per cent of the statistically representative sample and 14 per cent of the opt in survey respondents).

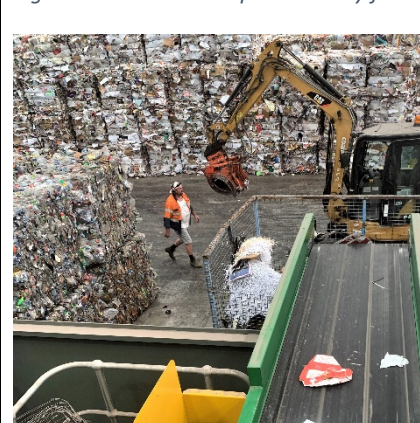
Around 80 per cent of comingled bins are presented to the kerbside each fortnight. The comingled stream has also generated relatively low free text responses in the surveys. The majority of issues identified in comments were to do with missed bins; a small number of respondents identified confusion over what can be recycled. While survey comments on the bin contamination inspection program were low in number, and both positive and negative, Council does receive some enquiries and concerns from residents about this program.

### System performance

There are three sources of data on contamination. The most reliable is truck audits. These sort a random sample of material in trucks and categorise and weigh the contents. The only data point that is possible at the household level is bin contamination checks which are being rolled out across the municipality. These provide visual data on what is visible in the bin. It is possible to do full household bin audits but these are costly and not practical to roll out at a whole of municipality level. The third source of data is information that comes from providers. This includes high level / visual inspection feedback (indicative but not precise), costings based on diversion rates, and periodic audits.

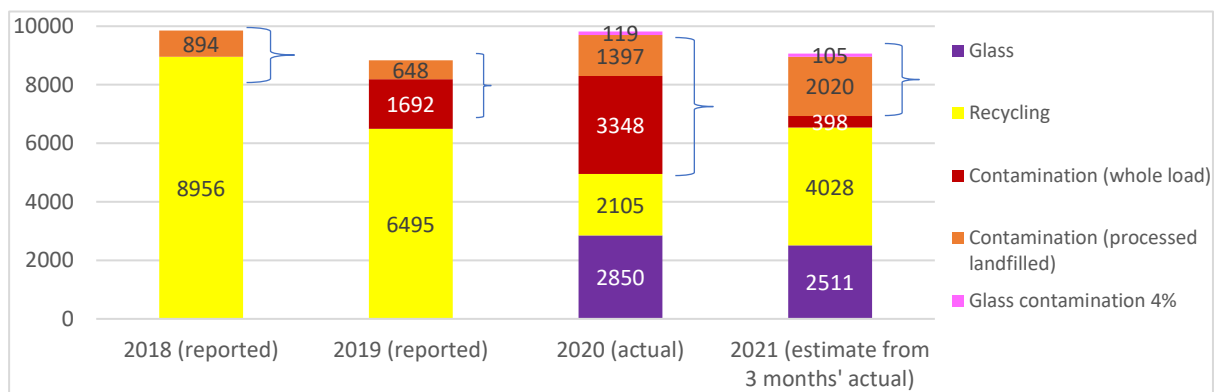
Overall contamination has been high, particularly in 2020 which was a transition year compounded by the impact of COVID-19

Figure 16 Australian Paper Recovery facility



restrictions. Figure 17 provides a comparison of comingled streams before and after the change. As glass was the heaviest element of the previous comingled stream, the separate glass and comingled streams must be added to make a true comparison. Based on the first few months of 2021, combined contamination for the 2021 calendar year will be around 28 per cent. In practice as we are seeing comingled contamination levels gradually reduce, it is likely that the 2021 result will be lower.

Figure 17: Comingled recycling contamination over time – 2018, 2019, 2020, 2021 (estimated)



One of the big changes with the new service is that APR is focused on achieving local (Australian) recycling users, rather than offshoring material. There are a number of products such as UHT milk and juice containers which do not currently have a local recycling pathway – providers who are accepting these are sending them offshore. However, at the start of the program, APR and Council committed to seeking more local options over time. Over the course of 2020, Council’s comingled recycling partner APR was able to secure a local recycling outcome for plastic code 5 – which is commonly used in packaging such as yoghurt and butter / margarine containers, and ice cream containers. APR and Council continue to explore opportunities to increase the items accepted in the comingled stream.

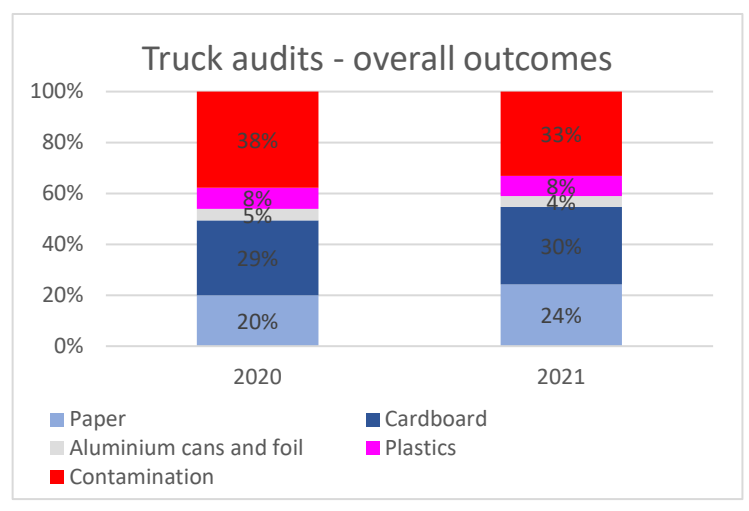
#### Bin inspection program

As noted above, the bin inspection program is the only way Council has been able to provide tailored feedback at a household level. The program is being rolled out in groups of suburbs, over three comingled bin cycles. The first cycle checks all bins, the second and third cycles checks only those bins which had significant contamination in the previous cycle. Stickers and information are provided to households. While the program only checks what is visible on the top of the bin, it is a valuable source of information for householders, and appears to be having an impact.

Truck audits undertaken before and after the program (for the Phase 1 suburbs already completed) indicate that total

contamination has reduced from 38 per cent to 33 per cent – a 13 per cent improvement. See Figure 18

Figure 18: contamination identified by truck audits before and after bin contamination checks (Phase 1)

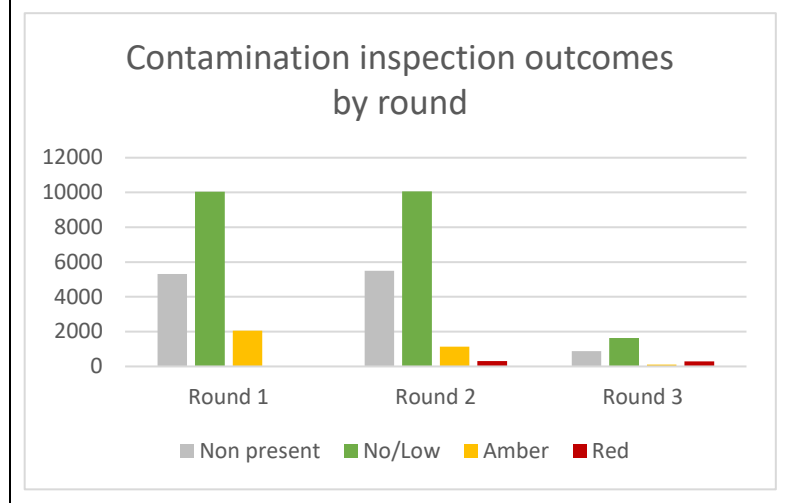


The highest contaminants include bagged materials (many households still place recyclables in a plastic bag – not realising the entire bag will go to landfill on the sorting line), paper and cardboard

unable to be recycled (eg with plastic film or waxed cardboard), plastics that cannot be recycled, and textiles.

The final round of Phase 4 inspections is close to completion but has been paused at the time of this report's production because of lockdown restrictions. However, the inspection program has done two rounds in every suburb, and altogether addresses were visited. A total of 45,538 inspections across three rounds have taken place with 16,736 not presenting their bins. A total of 3,456 amber stickers and 718 red stickers were issued across all rounds of both phases one and two. Further more detailed data on the bin inspection program is available in the Appendix. This includes charts comparisons by suburb.

Figure 19: bin contamination inspections by round (Phases 1 and 2)



A range of education programs were planned with the roll out of the program – including a series of block parties and targeted engagement with hard-to-reach communities. Many of these have been significantly impacted by restrictions associated with the COVID-19 pandemic. Other education has included extensive social media posts, household letters, a web and smartphone app, and a range of digital media such as video about the recycling stream. This will need to continue.

#### Recommendation and costings:

Recommendations for the comingled stream are to continue the current education program. Targeted engagement planned for 2020 and postponed as a result of the pandemic will be picked up (pending restrictions) in 2021. The cost of these programs have already been factored into the 2020-21 budget.



## Glass recycling

### Overview:

- The new glass collection has been positive with very low contamination, and good community satisfaction levels
- A significant proportion (58%) of residents do not present their bin each month for collection. Potential to consider sharing options for some households (eg, MUDs)
- Council is still using an interim option to recycle to a terminal use (building materials). There may now be the option to move to higher end use of the product; timely to undertake market testing and potentially procurement to seek higher end use options.

The new kerbside service introduced a dedicated glass-only bin in line with the statewide requirement for all households to have glass recycling by 2027. The initial months of the new service saw significant glass contamination in the comingled stream as people adjusted to the new program alongside low glass volumes collected. Data after March 2020 shows glass volumes settling, averaging 246 tonnes per month. This coincided with reduced levels of glass contamination in the comingled bin.

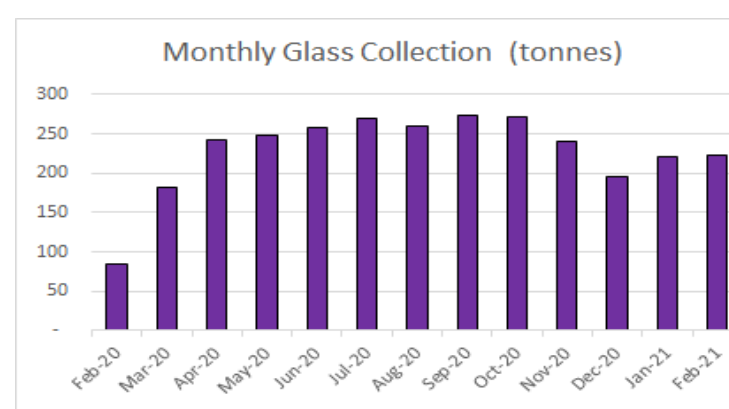
After the implementation months, uptake of the glass stream has been positive with very low contamination rates of less than 5 per cent. This is in line with other councils who have introduced a dedicated glass collection service with initial implementation followed by low contamination rates.

The presentation rates for the glass bin are the lowest of the four streams, at 42 per cent, indicating the service is meeting residents' needs with opportunities to refine. Given a number of residents are not presenting their bin each month this provides an opportunity to consider sharing options for some types of households or businesses, for example multi-unit developments may not require a bin per unit.

Community feedback on the glass stream indicates a high satisfaction rate with the size of the glass bin. The statistically representative phone survey provided average satisfaction of 8.31/10 for size (the online survey was also reasonably high). Satisfaction with the frequency of collection is also high with 8.27/10 from the statistically representative survey.

There are two main end uses for recycled glass: (1) glass crushing to produce sand and aggregate for use in civil engineering work such as concrete, road base or drainage aggregate; and (2) glass-to-glass packaging remanufacture. Glass collected via kerbside collections through a dedicated glass stream would still require further processing to enable glass-to-glass reuse. The environmental benefits associated with glass-to-glass remanufacture instead of first use materials are significant. Council's current glass recycling service recycles the glass collected for terminal use (option 1). There is an opportunity to explore higher end use of the collected glass or a proportion of the glass collected. The glass currently collected through

Figure 20 Monthly glass collection volumes



the new service indicates a high proportion of the glass could be recycled into glass-to-glass providing improved environmental outcomes. The roll out of glass collection streams across Victoria will increase opportunities in this sector and Council will continue to consider options to a higher end use of the product.

## Container Deposit Scheme

The Victorian Government has announced that it will introduce a Container Deposit Scheme (CDS) in 2023. The State Government's current timeline is to consult on regulations early 2022 and appoint scheme participants by mid-2022. The scheme details are still to be finalised but currently proposed eligible containers would include:

- Cans (e.g. soft drinks)
- Bottles (e.g. beer bottles)
- Cartons (less than 1L)
- Juice boxes/poppers

It is anticipated that the CDS would offer many locations across Victoria to return containers including shops, reverse vending machines, depots, pop-ups, and drop-off points. These could potentially be run by private operators, small business, charities, community, and sports groups. Individuals would drop off their items to these locations and collect a refund. It is understood that the CDS would offer refunds in the form of a donation to a charity of choice or to a payment voucher. It is not yet clear how the CDS will interact with local government recycling services, however refunds may also flow through to councils for eligible items collected from comingled and glass streams.

Whilst it is too early to measure the potential impacts of Victoria's CDS it will have an impact on the Hobsons Bay kerbside service. Impacts could include:

- Reduced volumes and costs from the glass and comingled streams, where residents choose to take their items to collect a CDS refund. The experience in NSW was a reduction in weight of 28 per cent of glass, 37 per cent of aluminium, and 18 per cent of plastic.
- Potential options to reduce costs of glass and comingled streams through refunds from CDS eligible items collected through the HBCC kerbside service. This will be difficult to estimate until more detail is available, and will be dependent on negotiations with processing partners at the time.

## Businesses and Council's waste and recycling services

### Review Recommendations:

- Offer businesses more options including the option to use only the bins they need (not all four streams), on a per-bin cost basis. This will allow Council to continue to provide a service that businesses value for those businesses that do not need a private service. It will alleviate amenity issues that may arise from unused/unwanted bins.
- Consider stronger enforcement, such as removal of service, where businesses are not meeting their obligations, to address amenity impacts within business districts.
- To reduce waste and recycle more, including food waste, promote third-party tools and services, such as Sustainability Victoria's Love Food Hate Waste Business program and commercial services that offer landfill alternatives.

Council's kerbside waste and recycling service is designed for residential volumes and household waste. Council currently provides collection services to around 1,280 businesses that opted into the service, which represents around 16% of the total businesses (7,892 in 2021) in Hobsons Bay.

Currently, businesses are required to use all four bins, which are collected on the same schedule as the residential service. Many businesses have differing waste-service needs to households and given their location, in areas with high foot traffic, report high rates of contamination from passers-by.

Businesses report that around half their total waste is general rubbish, a little more than one-third is mixed recycling, and less than 10% was glass or food and garden waste. Interestingly, this result is similar for food and beverage businesses, and only a small proportion of business respondents use food and garden waste collection services by other service providers.

Storing four bins within the property's boundary is not possible for around one-quarter of businesses. Bins stored in public areas can lead to rubbish dumping – and compromised amenity of the area – as well as contamination of recycling. Around one-quarter of businesses would consider sharing bins with neighbouring businesses to potentially reduce costs and storage requirements.

A more flexible option that allows businesses to opt in to only the bins they use, with the possibility of sharing with neighbouring businesses, will improve satisfaction and provide a practical and cost-effective waste service option for some businesses.

Council recommends allowing businesses to opt-in/out of one or more bins with no change to the standard waste service charge, noting that businesses that opt in to mixed recycling must also have access to glass recycling. Promote additional bins and upsizing options, which provide further flexibility and are available for charge.

While the opt-in/out of bins model for businesses will alleviate misuse of bins, there are a few hotspots where bin storage and dumping persist. There's a range of local laws protecting bin use; historically Council has taken a gentle approach on enforcement.

A stronger enforcement approach is required for hotspot areas, which would include a high level of officer engagement to work with businesses using a model of three strikes resulting in withdrawal of services.

## Kerbside waste and recycling service – alternative scenarios

In undertaking the review and formulating the recommendations, a range of alternatives were considered. These are detailed in Table 1 below.

### A note on costs

All costings listed below are costs above the current service. They are based on current contractual arrangements, and assumptions based on performance and feedback to date. However, all of these costs will change over time. This includes factors outside Council’s control such as the COVID-19 pandemic, seasonal variation, and federal and state government changes to regulation (eg, plastic bans) and fees (eg future landfill levy increases). They also include known upcoming changes, for example Council’s kerbside, comingled and glass contracts are due for renewal and will go to market in the next 12 months. Council will continue to explore options to improve outcomes in FOGO and landfill streams (including for example waste to energy alternatives as they become available).

Table 1: alternative scenarios considered

Option / description	Benefits	Drawbacks	Additional cost (\$m) – 2020-21 (2022-23)
1. Introduce weekly garbage collection	<ul style="list-style-type: none"> <li>Increased service to residents.</li> <li>Meet expectations of a minority of residents who are highly motivated for a weekly service.</li> </ul>	<ul style="list-style-type: none"> <li>Majority of residents are happy with a fortnightly service; many do not want weekly collections.</li> <li>High cost.</li> <li>Increase in landfill volumes.</li> </ul>	\$1.59 operating \$0.11 capital  (Approx. \$40 per household)  2022-23 opex: \$1.63
2. Revise FOGO to fortnightly collection and introduce weekly garbage	<ul style="list-style-type: none"> <li>Addresses known issue for households struggling with rubbish 120L capacity.</li> </ul>	<ul style="list-style-type: none"> <li>Many residents do not want weekly garbage collections.</li> <li>Reduced FOGO volumes.</li> <li>Increased landfill volumes.</li> </ul>	\$0.54 operating \$0.30 capital  (Approx. \$14 per household) 2022-23 opex: \$0.67
3. Free 240L general rubbish upsize to all households of 3+ and those with medical needs	<ul style="list-style-type: none"> <li>Only eligible households that need the additional volume will request it.</li> <li>Likely to address the needs of the majority of households producing more than 120L of garbage per fortnight.</li> </ul>	<ul style="list-style-type: none"> <li>Additional cost from a minority of households will be subsidised by all other residents.</li> <li>More costly than BAU.</li> <li>Some households will miss out.</li> </ul>	\$0.34 operating \$0.19 capital  (Approx. \$9 per household) 2022-23 opex: \$0.35
4. Free 240L general rubbish upsize to all households	<ul style="list-style-type: none"> <li>Addresses need for any households struggling with rubbish 120L capacity simple pricing.</li> <li>Simple pricing / implementation.</li> </ul>	<ul style="list-style-type: none"> <li>Households with lesser waste volume subsidise those with more.</li> <li>No incentive to reduce waste.</li> <li>More costly than BAU.</li> </ul>	\$0.48 operating \$0.37 capital  (Approx. \$12 per household) 2022-23 opex: \$0.50
5. One free 240L upsize (rubbish, FOGO, glass) to all households	<ul style="list-style-type: none"> <li>Tailored to address greatest need in every household.</li> </ul>	<ul style="list-style-type: none"> <li>More complex to administer.</li> <li>Households with less waste subsidise those with more.</li> <li>Relatively high cost with 16,000 current upsized paid FOGO bins.</li> </ul>	\$0.89 operating \$0.44 capital  (Approx. \$22 per household) 2022-23 opex: \$0.90

6. Introduce a weekly garbage collection over summer months	<ul style="list-style-type: none"> <li>Delivers additional garbage service during peak months</li> </ul>	<ul style="list-style-type: none"> <li>Changing schedule for community likely to result in annual calls for a weekly service</li> </ul>	\$0.49-0.60m operating \$0.02 capital  (Approx. \$12 per household) <i>2022-23 opex: \$0.51-0.62</i>
7. Introduce a weekly summer FOGO service (add on to <b>option 2</b> )	<ul style="list-style-type: none"> <li>Deliver additional FOGO service during peak months</li> </ul>	<ul style="list-style-type: none"> <li>Changing schedule for community likely to result in annual calls for a weekly service</li> </ul>	\$0.82-0.94m operating \$0.24 capital  (Approx. \$21 per household) <i>2022-23 opex: \$0.94-1.05</i>
8. Pilot paper bag use for FOGO, prior to full roll out	<ul style="list-style-type: none"> <li>Address main “pain point” with food organics service around smell and mess</li> <li>Likely to be possible within current service contract</li> <li>Opt in pilot allows testing of what works best for residents most motivated to participate</li> </ul>	<ul style="list-style-type: none"> <li>Additional cost to residents (whether through council / waste charge or through privately purchased bags).</li> </ul>	\$-56k to \$0.49m operating  (Approx. \$-0.15 to \$13)  <i>2022-23 opex: \$-8k - \$0.49m</i>

## Costing assumptions

All costings are based on the information that is currently available. This includes current pricing, known increases to the landfill levy, data on behaviour and performance over time, industry benchmarks, feedback from suppliers, and information from other councils. Where accurate data is available that is used; in some scenarios the models have drawn on the best information available about behaviour change in other councils to make an estimate.

Key assumptions include:

- Volume increase when a larger bin is supplied. Sustainability Victoria and other organisations have done research at various times on behaviour change if households have more volume available to them. This suggests that the change can range from seven to 30 per cent of volume. The scenarios above model a 15 per cent increase, consistent with previous scenario modelling.
- Changes in FOGO use with a fortnightly cycle. There is only one example of a Victorian council which has done research on a change from a weekly to a fortnightly FOGO service. Monash council tested this change and data from that research indicated that a fortnightly FOGO service resulted in a 33 per cent reduction in FOGO recovery in the FOGO stream (most of this volume transferred to the landfill stream). This estimate has been triangulated with other data available within HBCC including:
  - Bin fullness feedback from the kerbside survey, where approximately 25 per cent of households indicated a 120L weekly bin that was three quarters full and 42 per cent indicated a weekly 120L bin that was regularly full or over full (see Figure 11). Extrapolating that data to FOGO volumes indicates that FOGO volumes in HBCC might reduce by approximately 35 per cent.

- While there are a number of complicating factors impacting the volume across all streams in HBCC over the last 18 months (including transition to a new system, COVID-19 lockdowns, and high volumes of garden organics from an unseasonally wet summer), system data shows around a 33 per cent reduction in landfill as a result of the new service.
- Costs are based on the 2021-22 landfill levy rate. However any scenario involving increases to landfill volume will increase substantially more in 2022-23, and potentially beyond. Indicative operating costs in 2022-23 are included in italics in the costing column in the table above. These highlight that while all costs are growing, the cost curve is steeper for some options (reflecting the extent to which landfill costs are a key cost driver). This is particularly the case with options including a reversal of the frequency of landfill and FOGO, which will lead to a substantially larger landfill volume.
- Costs are based on current service charges and providers. However, these will change over time as services are re-tendered. Procurement of the kerbside service is currently out to market, and other services will be tendered in the coming years. Once waste to energy becomes possible further cost changes are anticipated for the landfill stream.

While the most likely scenarios have been modelled, costs are likely to vary over time. Taking one of the more complex scenarios, the reversing of frequency of garbage (from fortnightly to weekly) and FOGO (from weekly to fortnightly), changes to assumptions could significantly change costs.

- Lower cost: An increase in garbage of 5 per cent, and a transfer of 10 per cent of FOGO into garbage stream would result in an annual operating cost of approximately \$0.19 m (the equivalent of \$5 per household per year).
- Most likely: An increase in garbage of 15 per cent, and a transfer of approximately one third of FOGO into the garbage stream results in an operational cost of \$0.54 m in annual operational costs (the equivalent of \$14 per household).
- Higher cost: An increase in garbage of 25 per cent, and a transfer of approximately half the volume of the FOGO stream into garbage, results in an operational cost of: \$0.82 m in annual operational costs (the equivalent of \$21 per household).
- A one off capital cost in the order of \$0.3 m has been assumed. This assumes that a proportion of households currently using the free COVID upsized 240L garbage bins would switch back to 120L bins.

## Aligned services and impacts

### Dumped rubbish

Illegal dumping of rubbish in Hobsons Bay and neighbouring areas has been increasing steadily over the last three years, with no apparent spike in 2020 when the new kerbside program was introduced.

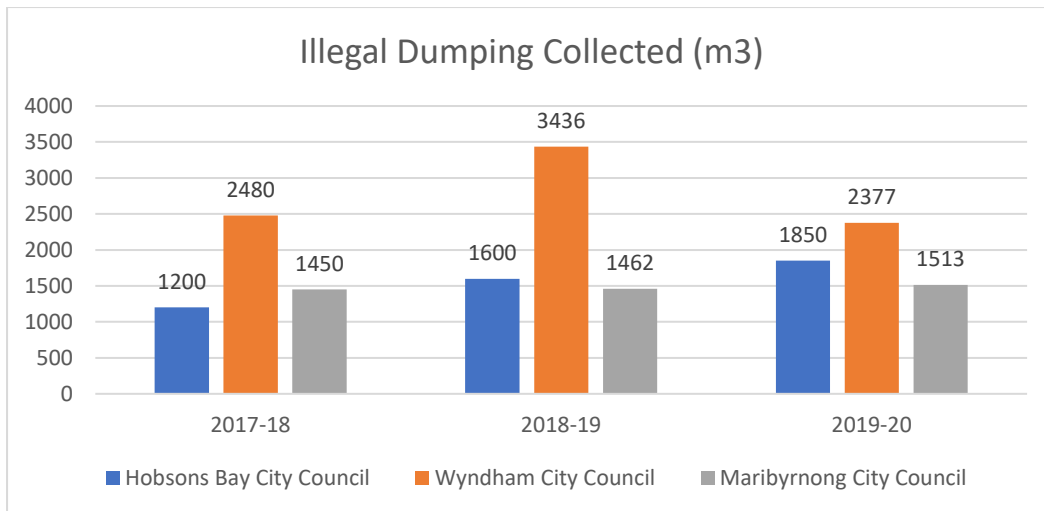


Figure 21: Illegal dumping rates are steadily increasing in our local vicinity

## Conclusion

As of June 2021, Council has a full year of operational data and community experience to draw from in order to reassess the program's performance. To review the service, Council engaged in extensive community consultations, to understand how satisfied the community is with the service, how the community is using each stream and preferences for each stream. Significant analysis of systems data for all streams was also undertaken, and State and Federal influences considered. At June 2021, Council is entering Phase 2 of the kerbside reform (see Figure 22), as planned at the start of the reform process.

To alleviate pressure on the garbage stream for the segment of the community who require it, Council recommends offering the option to upsize to a larger 240L garbage bin, without charge.

To encourage more food recycling, Council recommends conducting a paper bag trial as an option to counter the potential for mess and odour.

To address challenges for the small number of businesses that need a kerbside service from Council, it is proposed to introduce an option for business to reduce the number of kerbside streams they use.

This report, including the above recommendations, form part of a submission to Council who will determine the program going forward.

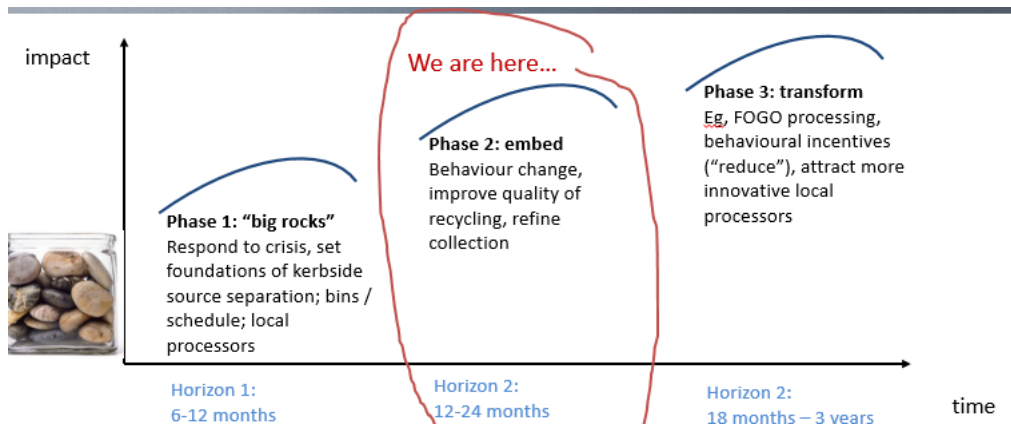


Figure 22: New kerbside system, Change model