

Addendum to Final Report

Introduction of Flexible Plastic Packaging in Kerbside Recycling Services – Household survey

Background

The *'Introduction of flexible plastics packaging into kerbside recycling services'* project aims to recover flexible plastic packaging through existing kerbside collections from four partner councils: Boroondara, Cardinia, Hobsons Bay and Nillumbik.

Cardinia, Hobsons Bay and Nillumbik launched the project in November 2016, while Boroondara launched in February 2017 via a municipality-wide household education campaign. The staged launch corresponded with timing for Council elections.

The project allowed 170,000 households across four municipalities with a convenient new process to consolidate a wide range of flexible plastics (i.e. bags, packaging and wrapping) into a bag for disposal into their kerbside recycling bin.

One hundred households in each of the four participating council areas (400 households total) were audited by Sustainable Resource Use (SRU) before and after the introduction of the new service. The audits involved analysing the contents of kerbside recycling bins in order to determine the level of household participation, the waste diversion and bin contamination rate, and the profile of flexible plastics presented for collection.

The audits found that on average 28% of the 400 selected households were utilising the flexible plastics kerbside recycling service. These results have provided an estimated participation rate as not all participating households presented their flexible plastics at each fortnightly collection.

Household survey

MWRRG conducted a household survey of 400 residents within the municipalities of Boroondara, Cardinia, Hobsons Bay and Nillumbik (100 in each council area) to gain information about how the new flexible plastics kerbside recycling service was received.

The purpose of the survey was to capture information about householders experience with the new service that could not be obtained via the visual bin audits. Key informed obtained through the survey includes:

- a clearer understanding of the household participation rate
- a stronger awareness of issues/barriers experienced by households
- the response rate to a range of campaign/communication materials
- the household use of alternative flexible plastics recycling services.

The survey aimed to assess household participation, issues/barriers experienced by households, interpretation of communication materials, and use of alternative services (i.e. Supermarket drop off/collection).

The survey also allowed MWRRG to capture additional information about residents personal experience and views with regards to the new service. A copy of the household survey is provided in Appendix 1.

Process:

1. Household surveys were placed in clearly marked envelopes and distributed into the letter-boxes of the 400 selected households by the audit crew.
2. Residents were informed that they were randomly selected and that by completing the survey they had the chance to win one of four \$150 Coles Myer vouchers.
3. A separate competition entry form was enclosed with the survey to encourage anonymous feedback (see Appendix 2).

101 surveys (25%) were returned to MWRRG by the closing date. MWRRG randomly selected one prize winner from each participating council area and notified the winners by telephone.

Program communication and messaging

Questions 1-4 of the survey sought information from the 400 audited households with regards to their personal views on recycling and their response to the household information packs.

Of the 101 households that responded to the survey:

- 85% said that it was 'very important' and 12% said that it was 'important' to separate recycling from the general waste stream.
- 78% reported seeing recent communications from their council about the new service.
- 95% of these respondents stated that the information received was easy to understand.

Of the respondents that reported seeing communications about the new service:

- 73% were informed of the changes through the household information pack.
- 23% heard about the program via a council newsletter or local newspaper.

These results demonstrate the important role that hardcopy communications continue to play in notifying residents about changes to council services and that householders are willing to separate flexible plastics from their general waste (see Fig 1).

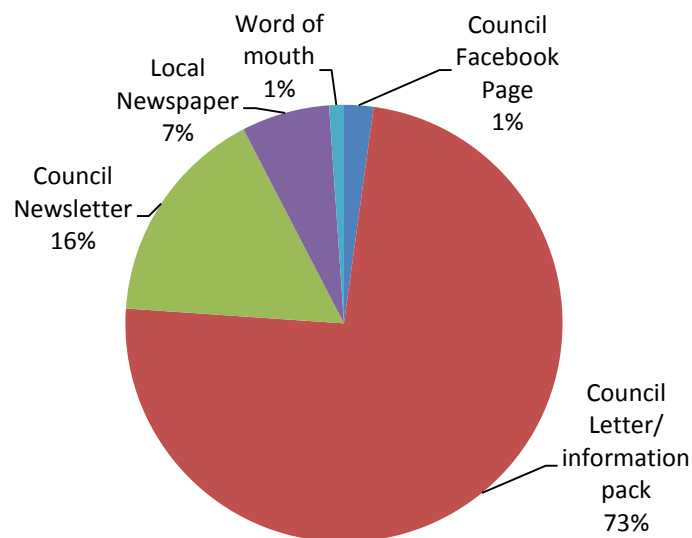


Figure 1. Household response to Question 3 - 'How did you hear about the changes to your recycling service?'

Household participation

The survey found that 60% of households participated in the kerbside flexible plastics recycling program. This result is significantly higher than the participation rate of 28% estimated through the post-project audits, demonstrating strong interest in the program. If this level of uptake is consistent across all 170,000 households in the four council areas, it is considered that 102,000 households are currently utilising the new flexible plastics service.

Boroondara experienced the highest participation rate with 69% of residents utilising the new service. This higher participation rate may be attributed to the social demographic of Boroondara and their councils high recycling rate.

The breakdown of household participation across the four councils is presented in Table 1.

Table 1: Average household participation rate across four participating council areas.

Response to Question 5: <i>Are you now placing bagged flexible plastics in your kerbside recycling bin?</i>			
Council	Yes	No	Did not answer
Cardinia	50%	18%	32%
Nillumbik	55%	27%	18%
Boroondara	69%	13%	18%
Hobsons Bay	66%	13%	21%
Overall	60%	18%	22%

Residents were asked why they chose to utilise the new service (Question 6):

- 68% indicated that they believe 'recycling flexible plastics reduced waste to landfill and helps the environment'.
- 15% were motivated by the prospect of flexible plastics being made into new products.

Residents who indicated that they are not using the new service:

- 25% opt to take their plastics bags to the supermarket for recycling
- 20% haven't started using the service yet.

From these results it could be reasoned that the household participation rate will increase over time following further promotion of the service by Councils.

Existing collection services

Questions 9-10 asked households to identify their use of the existing flexible plastics drop off/collection service provided by Coles and Woolworths supermarkets:

- 43% stated they have previously always or sometimes taken their bagged flexible plastics to the supermarket for recycling
- 36% reported they have never used the supermarket drop off/collection.

When asked about their current use of the supermarket collection service:

- 20% of all survey respondents reported that they have continued to use the supermarket drop off/collection since the introduction of the new flexible plastics kerbside service (see Fig 2). This suggests that there is a role for both supermarket and kerbside collection services in recovering flexible plastics.

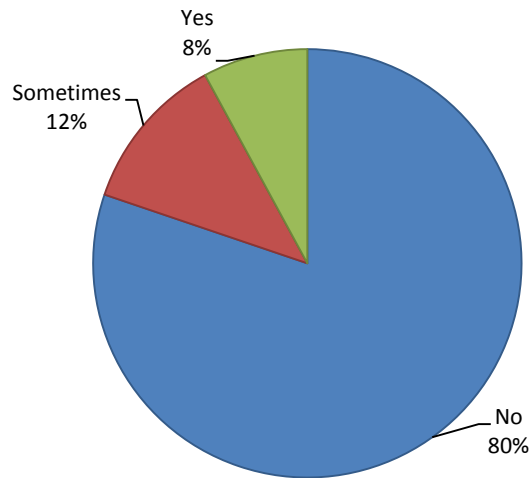


Figure 2: Response to the question –
'Are you currently taking your bagged flexible plastics to the supermarket for recycling?'

Use of singlet plastic bags

Question 11 asked households to report what they currently use to bag their general household waste for disposal in their kerbside garbage bin.

- 51% indicated that they use supermarket plastic bags to dispose of household waste.
- 40% of respondents purchase a plastic bin liner from the supermarket.

If a plastic bag ban is introduced, the 51% of households currently using supermarket plastics bags to dispose of household waste may need to source alternative bags such as purchased plastic or compostable bin liners, newspaper wrap, and other flexible plastic packaging e.g. toilet roll bag, cereal box liner, dried pet food bags.

Demographics

Questions 12-18 asked residents to provide personal details about their age, gender, country of origin, spoken language, municipality, family structure and home ownership status.

The survey respondents were represented across all age groups and genders. While the majority of respondents (69%) were Australian-born, it was positive to receive a strong response (31%) to the survey from residents who were born overseas.

All four municipalities were represented in the survey responses, with the majority of responses received from Boroondara households. This higher response may be attributed to the longer promotional campaign conducted by Boroondara Council. Full demographic results are presented in Appendix 3 of this report.

Discussion

Response

101 completed surveys (25% of households who received the survey) were returned to MWRRG. This strong response rate indicates a high level of household interest in waste and recycling issues. The data supports this keen interest with 85% of respondents stating that they believe it is very important to separate recycling from the general waste stream.

Households were primarily informed about the new flexible plastics service via the household information pack with 73% reporting they had seen these communication materials. The second most informative resource was the council newsletter or local newspaper with 23% stating they found out about the new service through these media channels. These results demonstrate the important role that hardcopy communications continue to play in notifying residents about changes to council services.

Survey respondents were represented across all age groups and genders, with the majority (69%) being Australian-born. With 31% of respondents stating that they were born overseas, councils may need to consider how they communicate flexible plastics recycling information to diverse communities as part of any future campaign messaging.

All four municipalities were represented in the survey responses, with the majority of responses received from Boroondara households. This higher response may be attributed to the longer promotional campaign conducted by Boroondara Council (three months longer) and enthusiastic response to the service by residents.

Household participation

The survey found that on average 60% of households are currently using the new flexible plastics service, demonstrating strong community interest. If this level of uptake is consistent for all households across the four partner council areas, it is expected that 102,000 households are currently utilising the new service.

Calculations based on the visual bin audits estimated that the average annual yield of flexible plastics could be around 6.5 kg per household. Assuming an average waste diversion of 6.5 kg across 102,000 households, it is estimated that 663 tonnes of flexible plastic will be diverted from landfill on an annual basis as a result of this project.

If expanded across 60% of Melbourne's 1.7 million households, there is potential for an additional 5,960 tonnes of flexible plastic to be diverted from landfill annually. This expansion would support the Metropolitan Waste and Resource Recovery Implementation Plan objectives to recover up to 178,000 tonnes of flexible plastics by 2026. As residents have enthusiastically embraced this new service, it is anticipated that the household participation rate will increase over time following further promotion of the service by councils.

The survey also questioned how many users of the new service have never previously recycled their flexible plastics via the supermarket drop off/collection. 36% of respondents reported having never previously recycled their flexible plastics, highlighting that the new service has increased flexible plastics recovery from households.

In order to determine if household recovery of flexible plastics has shifted from the supermarket drop off/collection to the kerbside recycling service, residents were asked if they currently take flexible plastics to the supermarket for recycling. It was found that 20% of households have continued to support the supermarket drop off/collection since the new service was introduced. This feedback demonstrates the important role that supermarkets play in recovering flexible plastics and support for recycled and locally manufactured products.

Conclusion

The strong uptake of the new flexible plastics kerbside service by households in Boroondara, Cardinia, Hobsons Bay and Nillumbik could be attributed to:

- the coordinated approach taken by councils, state government and industry
- the well-planned approach to communications undertaken by the Project Steering Committee
- the readiness and desire of the community to recycle their flexible plastics.

The flexible plastics drop off/collection service provided by Redgroup through supermarkets over a number of years has also contributed to generating community awareness and understanding of flexible plastics recovery.

The 60% participation rate highlights that households are ready and willing to utilise their kerbside recycling bin for flexible plastics and that they understand the clear instructions provided by council on how to use the service correctly.

The potential expansion of kerbside flexible plastics recovery to all metropolitan Melbourne councils provides opportunities to increase waste diversion from landfill, reduce contamination of flexible plastics in the recycling stream (within non-participating project councils), and provides increased quantities of flexible plastics for local and overseas manufacturers.

APPENDIX 1 – Household survey

RECYCLING SURVEY

Congratulations! Your household is one of 400 that has been selected to participate in a survey about household recycling. Complete the following survey for your chance to win 1 of 4 **\$150 Coles Myer vouchers**. The survey should take you around 5 minutes to complete. Please ☑ your answers.

Q1. Thinking about your household waste, how important would you say it is to separate your recycling from your garbage? Is it: (Select one response only)	Very important	<input type="checkbox"/>
	Important	<input type="checkbox"/>
	A little important	<input type="checkbox"/>
	Unimportant	<input type="checkbox"/>
	Don't know	<input type="checkbox"/>

Q2. Have you seen recent communications from your council about a new kerbside service to recycle bagged flexible plastics? Note: Flexible plastics include - Plastic shopping bags - Flexible plastic packaging from groceries e.g. bread, rice, pasta, toilet paper, frozen foods - Inner wraps from cereal/biscuit boxes - Clean cling wrap and freezer bags - Plastic wrap from appliances - Plastic postal bags and document sleeves - Bubble wrap	Yes	<input type="checkbox"/>
	No (Go to Q9)	<input type="checkbox"/>

Q3. How did you hear about the changes to your recycling service? (Select all that apply)	Local newspaper	<input type="checkbox"/>
	Council letter/information pack	<input type="checkbox"/>
	Council newsletter	<input type="checkbox"/>
	Council website	<input type="checkbox"/>
	Council Facebook page	<input type="checkbox"/>
	Council e-news or email	<input type="checkbox"/>
	Word of mouth	<input type="checkbox"/>
	Other (please specify):	<input type="checkbox"/>

Q4. If you received information from your council, was the information easy to understand?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	How could the information be improved?	<input type="text"/>

Q5. Are you now placing bagged flexible plastics in your kerbside recycling bin?	Yes (go to Q6)	<input type="checkbox"/>
	No (go to Q7)	<input type="checkbox"/>

Q6. What has motivated you to place bagged flexible plastics in the recycling bin? (Select most important response only)	Convenience of disposal	<input type="checkbox"/>
	Recycling flexible plastics reduces waste to landfill and helps the environment	<input type="checkbox"/>
	Recycled flexible plastic can be made into new products	<input type="checkbox"/>
	Other (please specify):	<input type="checkbox"/>

Q7. If you do not place bagged flexible plastics in your recycling bin please list the reason why: (Select most important reason only)	Don't use plastic bags	<input type="checkbox"/>
	Recycling bin is full already	<input type="checkbox"/>
	Not sure what flexible plastic items can be recycled	<input type="checkbox"/>
	Take plastic bags to supermarket for recycling	<input type="checkbox"/>
	Nowhere to store plastic bags in house	<input type="checkbox"/>
	Don't believe items in the recycling bin get recycled	<input type="checkbox"/>
	Too hard to sort	<input type="checkbox"/>
	Other (please specify):	<input type="checkbox"/>

Q8. Do you have any comments or suggestions to make it easier or more convenient to recycle bagged flexible plastics? (Please specify)	
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Q9. Have you previously taken your bagged flexible plastics to the supermarket for recycling?	Yes, always	<input type="checkbox"/>
	Yes, sometimes	<input type="checkbox"/>
	No, never	<input type="checkbox"/>
	Other (please specify):	<input type="checkbox"/>

Q10. Are you currently taking your bagged flexible plastics to the supermarket for recycling?	Yes, please state your main reason for doing so:	<input type="checkbox"/>
	Sometimes	<input type="checkbox"/>
	No	<input type="checkbox"/>

Q11. How do you currently bag your household rubbish for disposal in your kerbside garbage bin?	I use plastic supermarket shopping bags	<input type="checkbox"/>
	I use a plastic bin liner purchased from the supermarket	<input type="checkbox"/>
	I use a compostable bin liner	<input type="checkbox"/>
	I don't bag household rubbish, I put my rubbish loosely in the kerbside bin	<input type="checkbox"/>
	Other (please specify):	<input type="checkbox"/>
Q12. Age group:	Under 20	<input type="checkbox"/>
	20 – 29	<input type="checkbox"/>
	30 – 39	<input type="checkbox"/>
	40 – 49	<input type="checkbox"/>
	50 – 59	<input type="checkbox"/>
	60 – 69	<input type="checkbox"/>
	70 or over	<input type="checkbox"/>
Q13. Gender:	Male	<input type="checkbox"/>
	Female	<input type="checkbox"/>
	Other	<input type="checkbox"/>
Q14. Were you born in Australia or overseas?	Australia (Go to Q16)	<input type="checkbox"/>
	Overseas	<input type="checkbox"/>
Q15. If you were born overseas, please state which country and primary language spoken at home.	Country:	
	Primary language:	
Q16. Which council area do you live in?	Council:	
	Suburb:	
	Postcode:	
Q17. Would you describe your household as: (Select one response only)	Single occupant	<input type="checkbox"/>
	Single parent with children at home	<input type="checkbox"/>
	Couple only	<input type="checkbox"/>
	Couple with children at home	<input type="checkbox"/>
	Group/shared household	<input type="checkbox"/>
	Other (please specify):	
Q18. Is the place you are living in? (Select one response only)	Rented	<input type="checkbox"/>
	Owned	<input type="checkbox"/>

Thank you for your time, your answers will be kept confidential and will only be used for analysis purposes. Remember to complete and return your competition entry form if you wish to go in the draw to win a \$150 Coles Myer voucher.

APPENDIX 2 – Supporting materials



Image 1: Household survey envelope

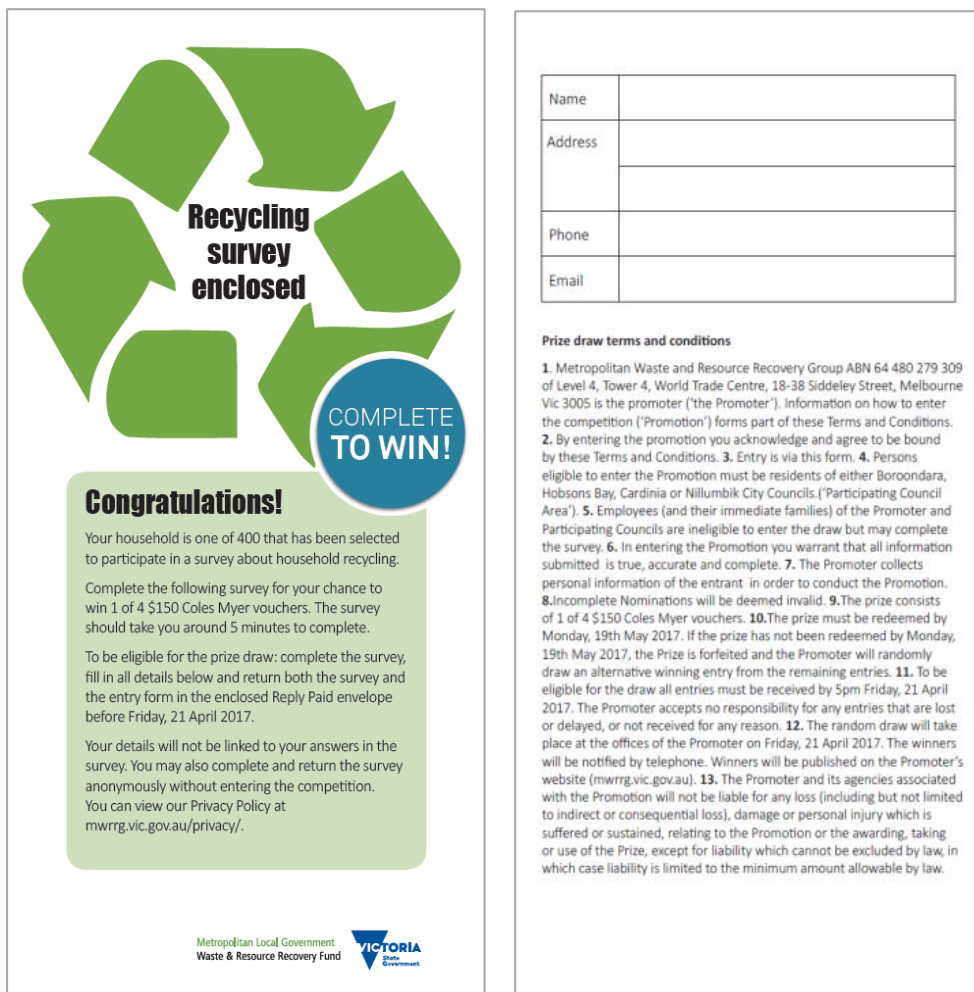
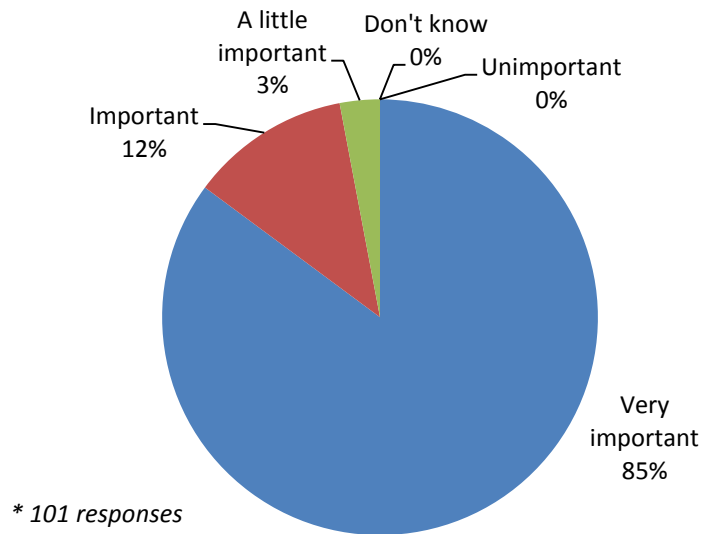


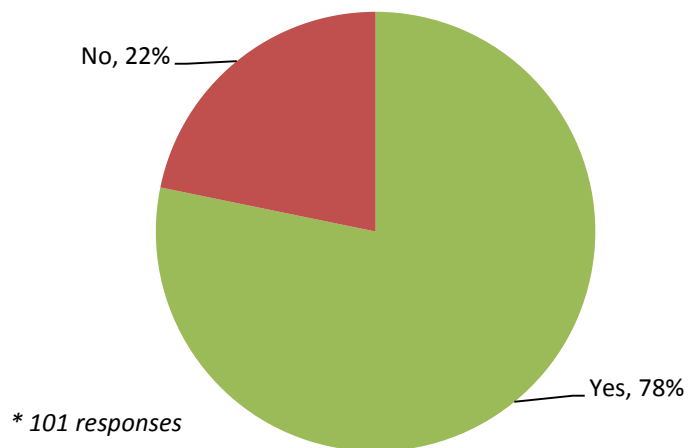
Image 2: Competition entry form and Terms & Conditions

APPENDIX 3 – Full survey results

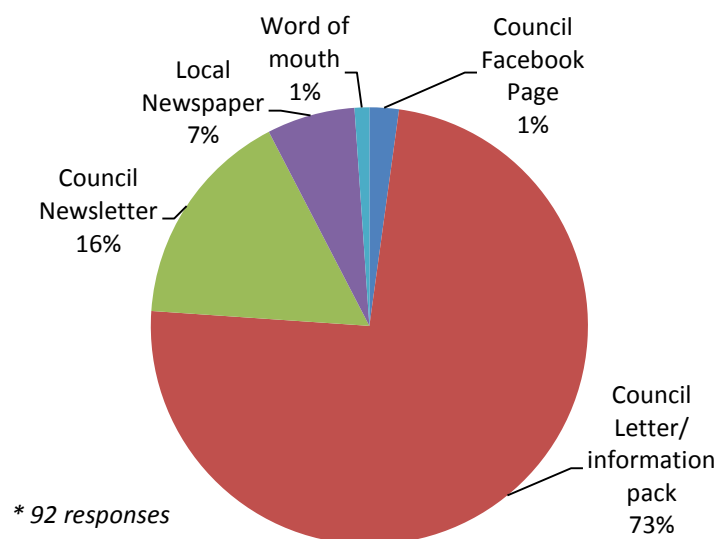
Q1. Thinking about your household waste, how important would you say it is to separate your recycling from your garbage?



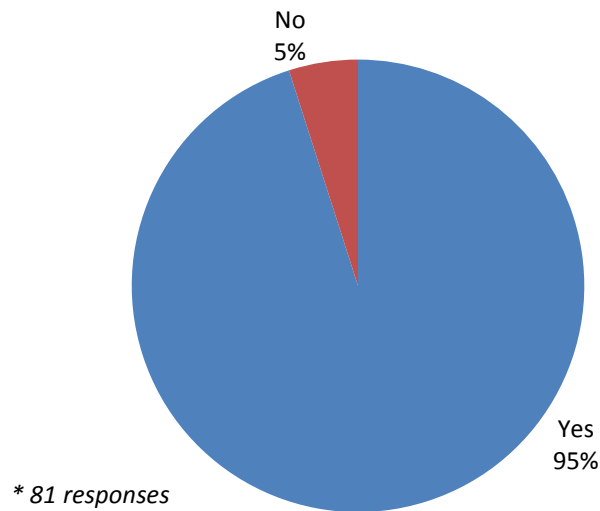
Q2. Have you seen recent communications from your council about a new kerbside service to recycle bagged flexible plastics?



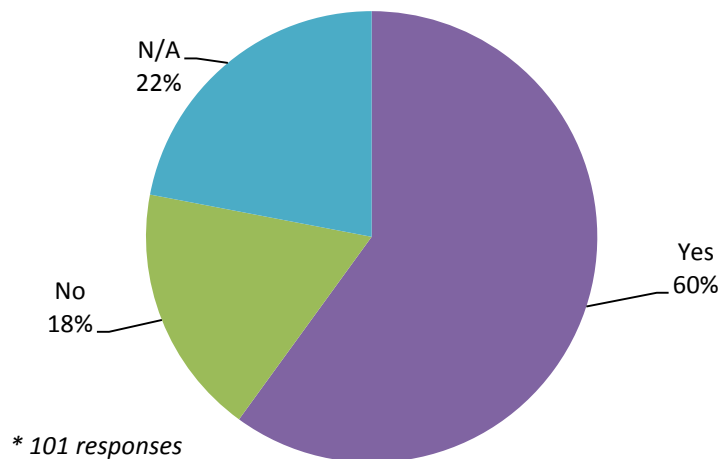
Q3. How did you hear about the changes to your recycling service?



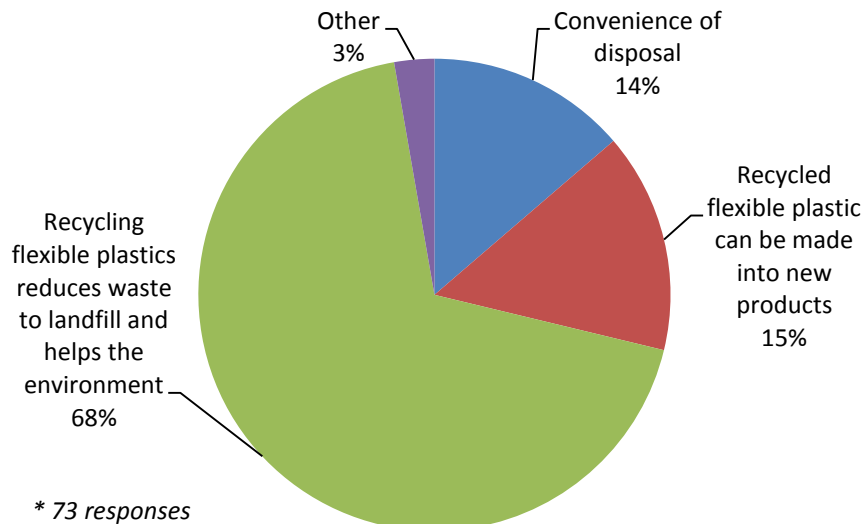
Q4. If you received information from your council, was the information easy to understand?



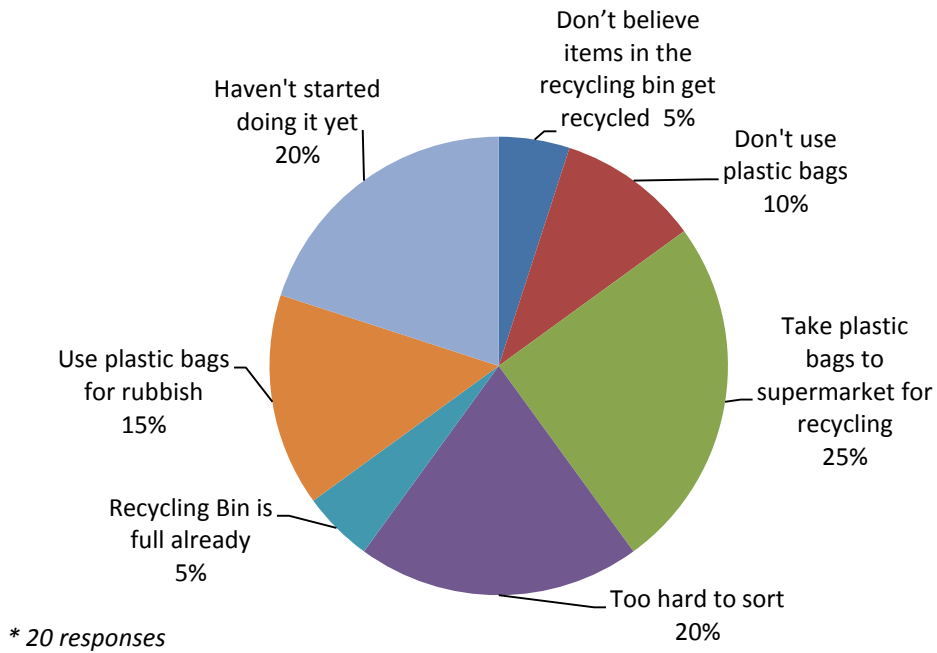
Q5. Are you now placing bagged flexible plastics in your kerbside recycling bin?



Q6. What has motivated you to place bagged flexible plastics in the recycling bin?



Q7. If you **do not** place bagged flexible plastics in your recycling bin please list the reason why:



Q8. Do you have any comments or suggestions to make it easier or more convenient to recycle bagged flexible plastics? (19 comments)

COMMENTS

A wire rack to hold the bag or that could be placed under the sink or magnet for fridges to explain the bins use in a list format.

Fridge magnet- from councils with infographic of what can now be recycled.

Have the list of what flexible plastic items can be recycled included with the general waste management printed info from the council.

I am delighted the council has taken this initiative to recycle bagged flexible plastics and I hope they continue to offer this wonderful service.

I need to understand what we can recycle. Repeated information.

Instead of putting a \$1 stamp on (the survey envelope) why not have put a special "mail box" in Coles or Post Office for us to drop off survey.

It is not that it is not easy or convenient, it is the lack of space in the recycling bin to fit it in as the bin is already full as we recycle properly/a lot.

It would be a great idea if council doesn't send plastic bags to collect plastic bags.

It would be more convenient if we had a special bin or container.

Love the new flexible plastic recycling scheme! Thank you.

Make sure Recycle code (symbol) is on all plastics.

No comment because I personally feel that while I am putting al my cartons etc in yellow bin, I am recycling already.

No, works ok as is.

No, you are doing a great job & I welcome whole heartedly this initiative. It is extremely important for the environment, Bravo!

None

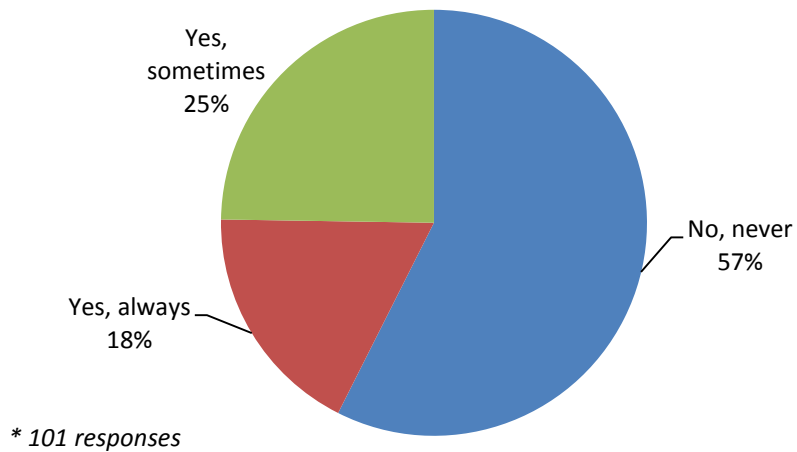
Really appreciate this initiative. Would like to go one step further and ban plastic bags.

The bags provided to identify suitable products were useful as a reminder.

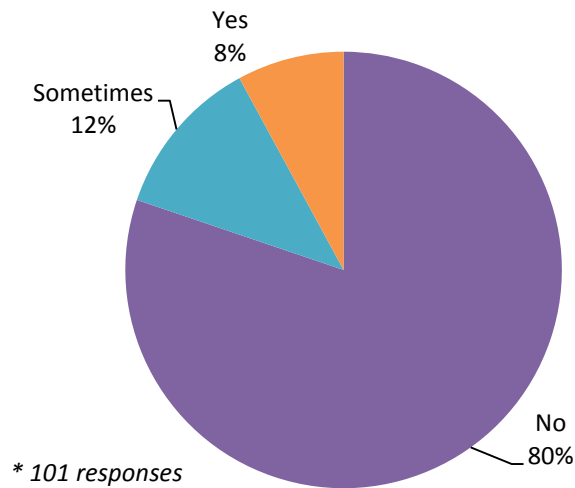
Would like a sticker on the bag to indicate flexible inside.

Yes, let us put them in the recycling bin loose.

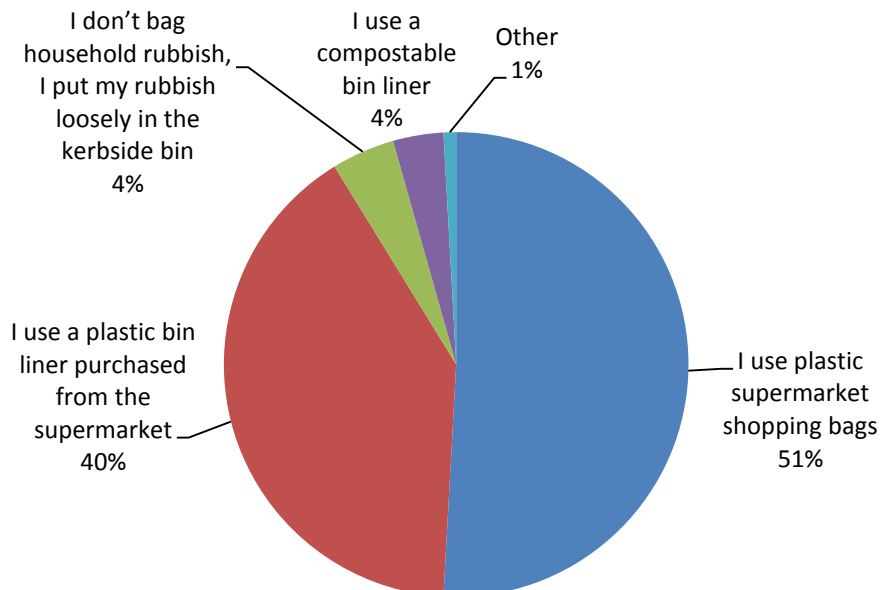
Q9. Have you previously taken your bagged flexible plastics to the supermarket for recycling?



Q10. Are you currently taking your bagged flexible plastics to the supermarket for recycling?

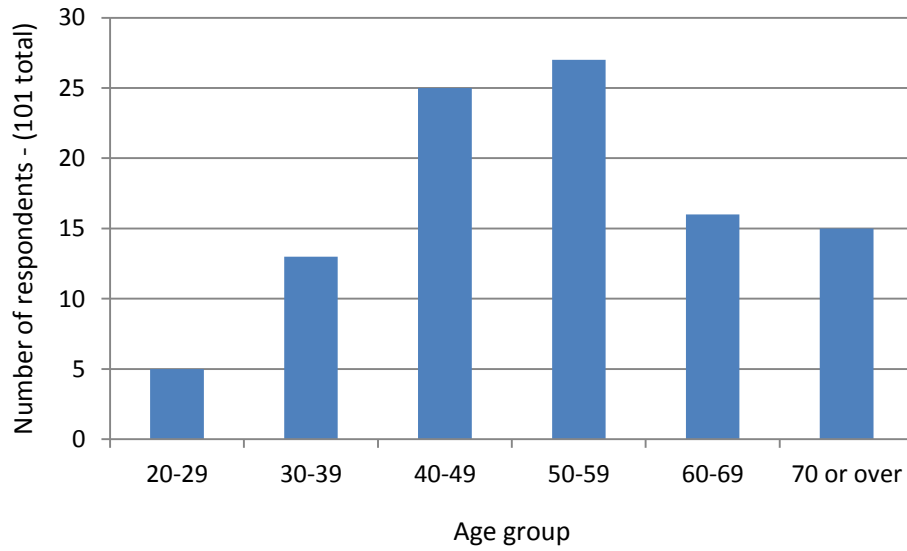


Q11. How do you currently bag your household rubbish for disposal in your kerbside garbage bin?

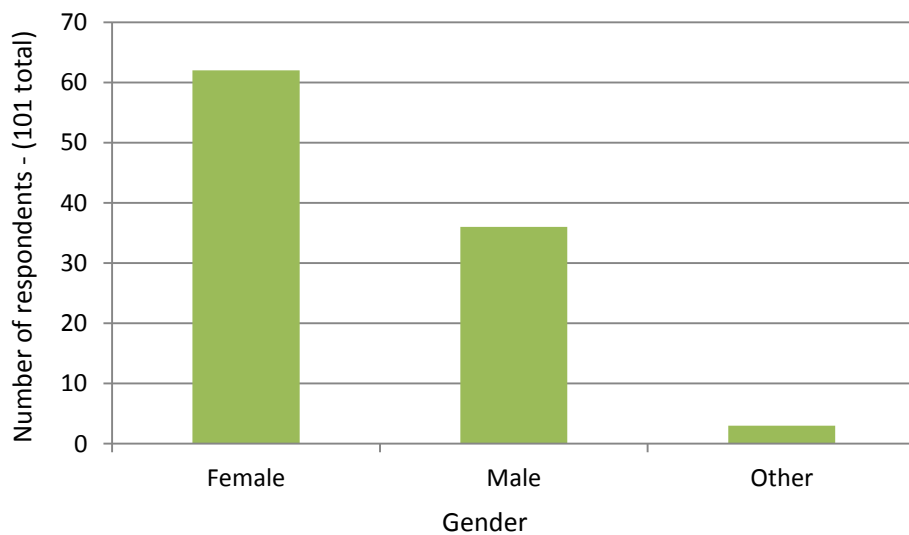


RESPONDENT DEMOGRAPHICS

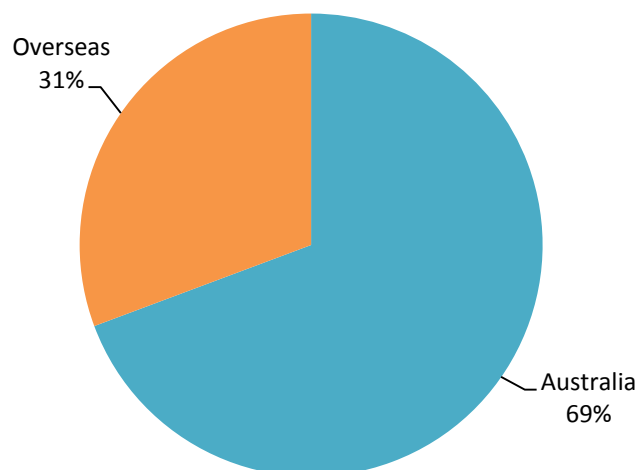
Q12. Age group:



Q13. Gender:



Q14 – Q15. Country of origin:

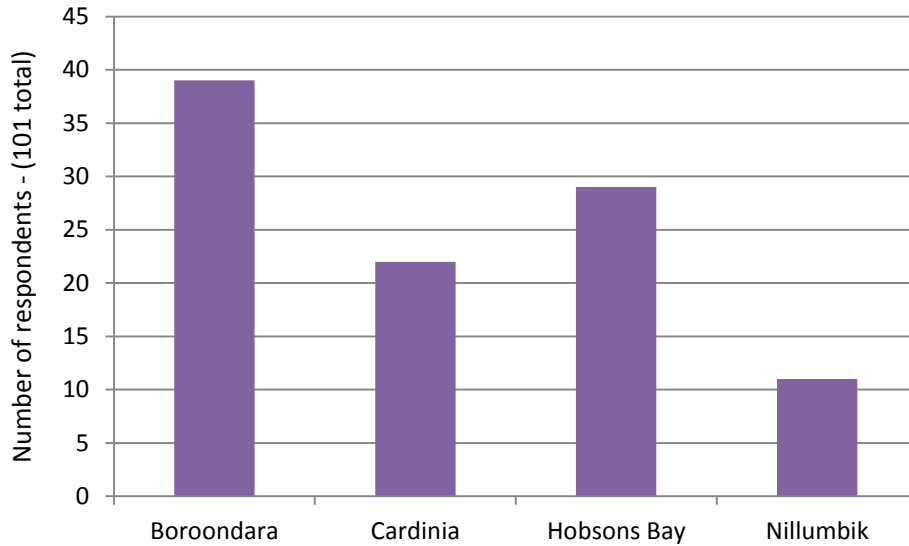


Q15. Language spoken at home (only answered by survey respondents born overseas):

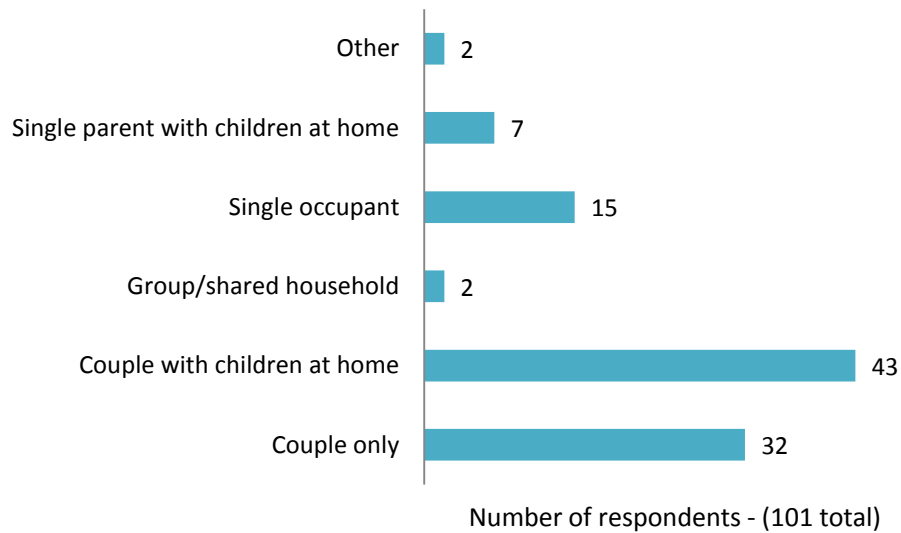
English – **78%**

Other – **22%**

Q16. Municipality:



Q17. Family structure:



Q18. Home ownership:

Own home – **84%**

Renting – **16%**