

Survey Report: Western Australian Households Views on Plastic Waste 2017

Report by Colin Ashton-Graham, Consulting Behavioural Economist, for the Boomerang Alliance

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Contents

Table of Contents

Contents	2
1 Executive summary	3
2 Background	4
2.1 Context	4
2.2 Objectives	4
2.3 Purpose of this report	5
3 Methodology	5
3.1 Evaluation design	5
3.2 Sample management	6
3.3 Data analysis	7
4 Key Findings	8
4.1 Community concern (about the impacts of plastics)	8
4.2 Consumer behaviours	9
4.2.1 Avoiding plastics	10
4.2.2 Barriers to reusable bags	11
4.2.3 Preference for alternatives to bags as bin liners	11
4.3 Policy support	13
4.3.1 Response to emerging policy issues	13
4.3.2 Change in response to information on the properties of plastics	14
5 Conclusions	16
A. Appendix – Survey Instrument	17
B. Appendix – Community response by geographical region	22
C. Appendix – Community response by age group	26

1 Executive summary

This report presents the results of a survey of a random sample of the Western Australian adult population (consisting of 402 residents of all ages, household types and employment status across Regional and Metropolitan areas). The survey was designed to measure community concern regarding the environmental issues associated with plastics, to report choices that consumers make in response to these concerns and to gauge support for the regulation of some plastic products.

In addition to providing a snapshot of community views and behaviours, the survey used a test-inform-retest approach to measure community response to the complex issues surrounding biodegradable and compostable plastic bags.

The survey was conducted through telephone interviews, with the target for a valid sample of 400 respondents being exceeded.

The survey found that that:

- More than 90% of the community is concerned about the environmental issues associated with plastic waste (i.e. the impacts on oceans, litter, wildlife, recycling and landfill)
- Taking responsibility for avoiding the consumption of plastics (e.g. refusing plastic shopping bags, avoiding pre-packed produce and avoiding bottled water) is practiced ('always' or 'most of the time') by more than 50% of consumers
- 65% of consumers experience barriers to avoiding lightweight plastic bags (e.g. forgetting their reusable bags or purchasing too many items)
- The vast majority of Western Australians (84%) support a ban on lightweight single-use plastic bags, with just 7% opposed to such a measure
- Support for including biodegradable and compostable bags in the ban increased, from 69% to 85% when informed that these bag types remain a marine pollution and landfill problem (by not breaking down rapidly)
- Support for bans on lightweight, biodegradable and compostable single-use plastic bags was strong across all regions of WA and all age groups.

The survey also provides insights into overcoming the barriers to using alternatives to lightweight single-use plastic bags and for solutions to secondary uses such as household bin liners.

2 Background

2.1 Context

The Western Australian Government announced its intention to implement a ban on single-use plastic bags from 1 July 2018. Prior to making a determination on the scope of the ban and the pathway to the adoption of alternatives to single-use plastic bags, the Department of Water and Environmental Regulation (DWER) is releasing a Discussion Paper on the issue. DWER engaged the Boomerang Alliance to:

- Provide technical advice on the environmental issues associated with single-use bags and potential alternatives
- Assist with stakeholder consultation
- Conduct formative research into community perceptions of plastic waste and the barriers and benefits of changing from single-use plastic bags to alternatives
- Develop a Community Education Plan to facilitate the transition to the final form of the ban on single-use plastic bags.

In November 2017, the Boomerang Alliance engaged Colin Ashton-Graham, Behavioural Economist, to conduct a survey of community perceptions and behaviours around plastic waste.

2.2 Objectives

The Community Survey aims to:

- Gather information from a representative sample of the Western Australian community, consisting of a:
 - random sample of adults
 - statistically robust sample of 400 respondents (providing an error margin of +/-4.9% at 95% confidence level)
 - representative of Metropolitan (n=250) and Regional residents (n=150)
 - representative of all adult age groups, household structures and employment status
- Provide measures of:
 - strength of community concern for the environmental and health issues associated with plastics
 - current consumer choices in avoiding (choosing alternatives to) plastic products
 - strength of community support for policy and regulatory measures to reduce the consumption and/or littering of plastics
 - consumer barriers to the uptake of reusable shopping bags
 - consumer preferences for alternatives to using shopping bags as household bin liners
- Test community response to emerging evidence that biodegradable and compostable bags fail to break down quickly enough to protect the marine environment or to compost in landfill conditions

These requirements were delivered through a telephone survey, using a database of publicly available landline and mobile telephone numbers (Sample Pages). The benefits of a telephone survey methodology are:

- The survey fieldwork effort can be structured, by day of the week and time of day, to reach all demographic groups
- Screening questions can be used to avoid over-representation of easy to reach groups (e.g. older persons)
- High response rates can be achieved, reducing the likelihood of a bias (difference) amongst persons more inclined to self-complete surveys
- Trained interviewers can code unprompted responses, thus reducing the degree to which survey response options influence respondents

2.3 Purpose of this report

This report presents the results of the *Plastic and Waste Recycling Survey* that was conducted in November 2017 to provide:

- A snapshot of community concern regarding the environmental impacts of plastics
- Measures of consumer choices regarding plastic products and alternatives
- Strength of community support for the regulation of a range of plastic products
- Barriers to the adoption of alternatives to lightweight plastic shopping bags

The results of the survey will inform the process to develop regulation of lightweight plastic shopping bags and provide a benchmark for future tracking of community awareness, behaviour and sentiment on other plastic products.

3 Methodology

3.1 Evaluation design

The survey was designed to achieve responses from a representative sample of the Western Australian adult population, and hence to provide a reliable measure of community concern and behaviours. The questionnaire (see Appendix 1) included measures of:

- concern (about environmental impacts)
- behaviours (consumer choices)
- support (for policy and regulatory responses)
- response (to information on biodegradable and compostable bags)
- barriers (to the adoption of alternatives to single-use bags)
- stated preference (willingness to adopt alternatives to plastic bags for lining household bins)
- demographics

Many of these measures were structured (e.g. multiple-choice or scale rating) to obtain the best measure of quality issues. Measures of awareness were unprompted, to avoid leading bias. A target was set to secure 400 survey responses, sufficient to provide measures accurate to $\pm 4.9\%$ with 95% confidence that the results are accurate and repeatable.

The survey was deployed by telephoning a random sample of the WA population and asking for the adult person in the household whose birthday comes up next (this being to randomise the age and gender of the respondent within reach household reached). Landline and mobile telephone numbers were included to ensure that the sample was representative of the adult population.

3.2 Sample management

The survey commenced on 16 November 2017 and closed on 21 November, having conducted surveys across weekday and weekend daytime and evenings.

The sample was structured from 4,192 WA persons, including 300 to 400 persons in each of four Regions and 2600 persons in the Perth Metropolitan region. This sample resulted in 250 numbers that were disconnected/ wrong/ mobiles no longer resident of WA and hence the valid sample was 3,942 members. From this valid sample:

- 1,080 refused to take the survey (27%)
- 2,063 were not contacted prior to closing the survey (53%)
- 799 agreed to take the survey (20%), of these:
 - 57 requested a call back, but were not required to fill the survey quota
 - 340 were screened out because their quota (by age or region) was full
 - 402 completed the survey

The geographical representation of responses was:

- 251 from Perth Metropolitan (Post Codes 60xx and 61xx)
- 40 from Pilbara, Kimberley and North Gascoyne (Post Code 67xx)
- 41 from Mid West (Post Codes 65xx and 66xx)
- 40 from the South West (post Codes 62xx and 63xx)
- 30 from Goldfields, Esperance (Post Code 64xx)

The demographic responses were broadly representative of the WA adult population except for a degree of under-representation of younger persons (age 18 to 29 years), persons not employed (retired, home duties, seeking work) and males. The demographics of the survey are compared to the demographics of Western Australia (2016 Census data) in Figure 1 below. The survey bias, towards females, is considered appropriate for the task of measuring consumer response to the banning of lightweight single-use bags. This 'fit for purpose' sample is validated by the finding (Figure 2, below) that 94% of respondents engage in grocery shopping weekly or more frequently.

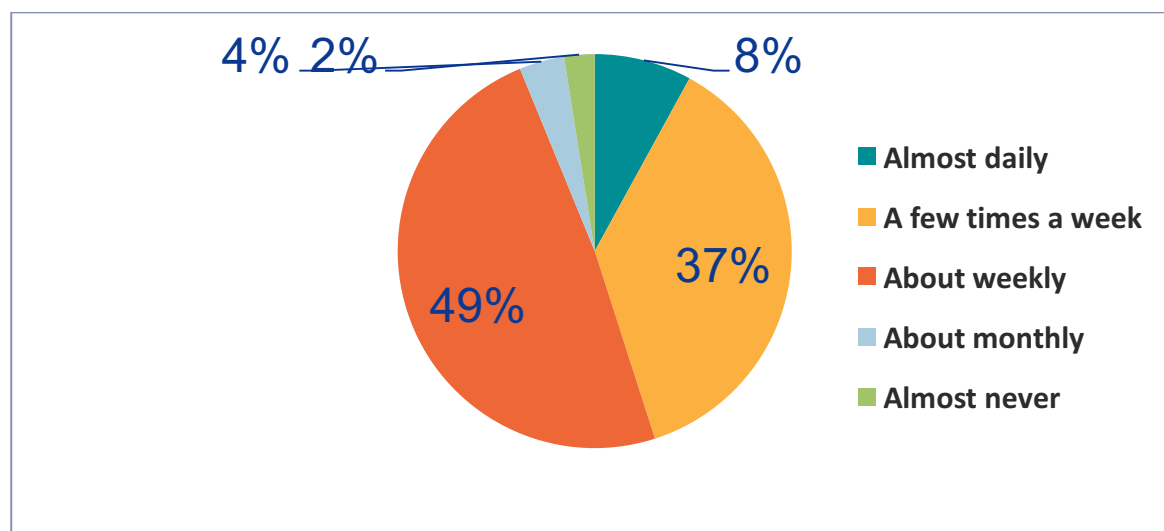
Figure 1: Survey response sample compared to WA demographics

	Survey group	WA ABS data
Age (% of adult popn):		
- 18 to 29 years	11.6%	21.2%
- 30 to 49 years	32.0%	37.3%
- 50 to 64 years	42.21%	23.3%
- 65 and older	14.5%	18.1%
Gender:		
- Male	37.6%	50%
- Female	62.4%	50%
Household structure:		
- Couple no children at home	30.9%	28.5%
- Family with children	44.9%	44.3%
- Share house	4.2%	3.8%
- Single occupant	20.0%	23.5%
Employment status:		
- Full-time employed	44.0%	37.5%
- Part-time employed	26.9%	19.7%
- Not employed	29.21%	42.8%

3.3 Data analysis

The data has been presented in graph or table format for the whole sample of 402 persons representative of the Western Australian adult population. The headline measures are also presented in tables (appendix B and C) broken down by geographical region and age group.

The survey sample are directly involved in grocery shopping, with 94% doing the shopping 'about weekly' or more often.

Figure 2: Frequency of grocery shopping trips by WA adults

Q5. How frequently do you (personally) shop for groceries? (n=402)

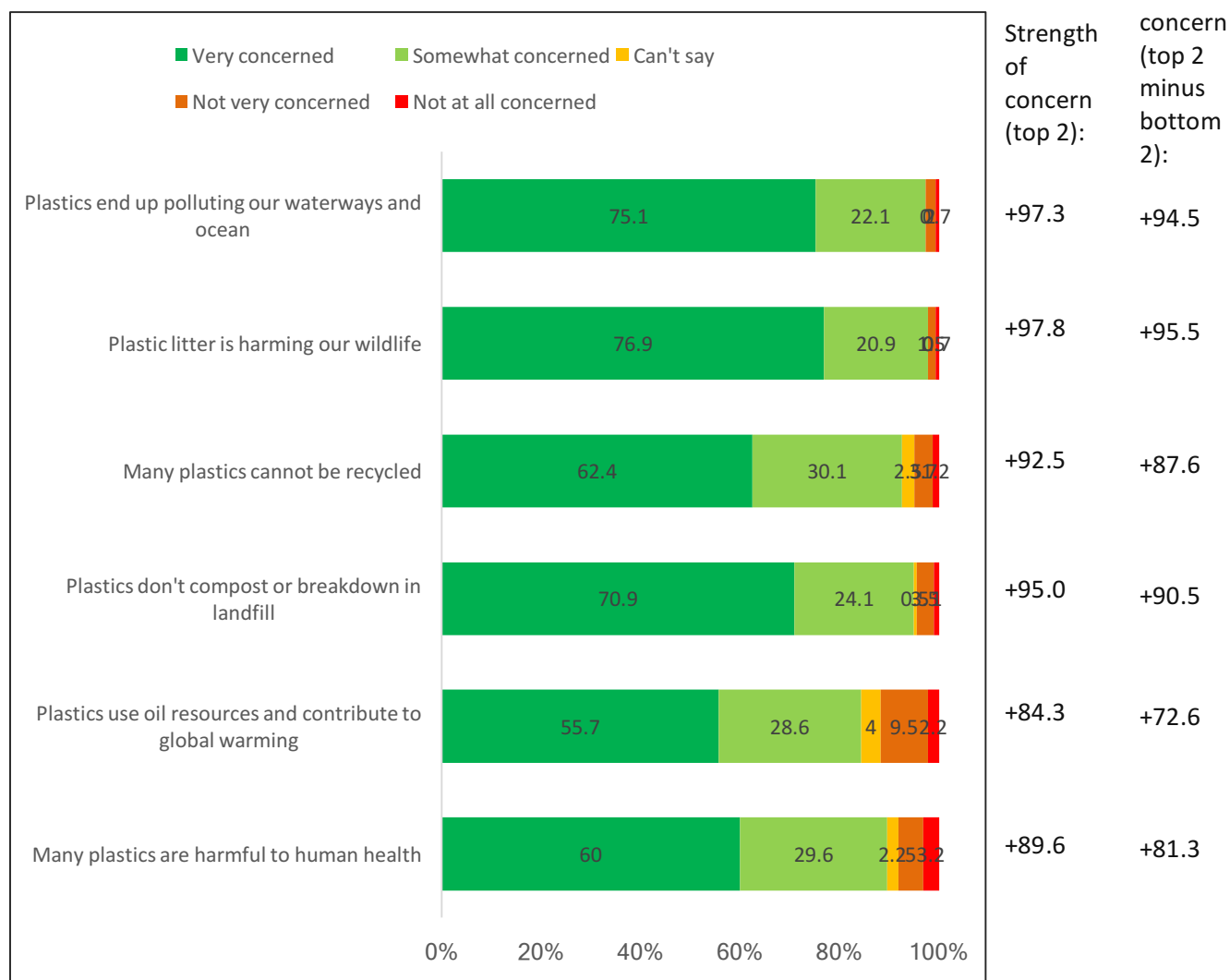
4 Key Findings

The survey responses are summarised under the themes of 'Community concern', 'Consumer behaviours' and 'Policy support'.

4.1 Community concern (about the impacts of plastics)

The survey measured the strength of respondents concern for each of six issues with plastics. The response scale ranged from 'Very concerned' to 'Not at all concerned'. From a policy perspective, it is useful to note the extent of high concern (the top two response options) and the net measure of concern across the community (being the top two response options minus the bottom two). Where these measures are similar, there is a strong community consensus on the importance of an issue. Where the measure of net concern differs from the 'top two' measure, the community is more divided over the issue.

Figure 3 shows that there is very strong and united concern across the community regarding plastic pollution of waterways, harm to wildlife and poor recycling and landfill outcomes. There is also strong community concern, with divided opinion from a small minority of the community, regarding the greenhouse impacts of plastic production and the risks to human health.

Figure 3: Strength of community concern regarding plastic products and waste

Q1 How concerned are you about each of the following issues with single-use plastics? (n=402)

4.2 Consumer behaviours

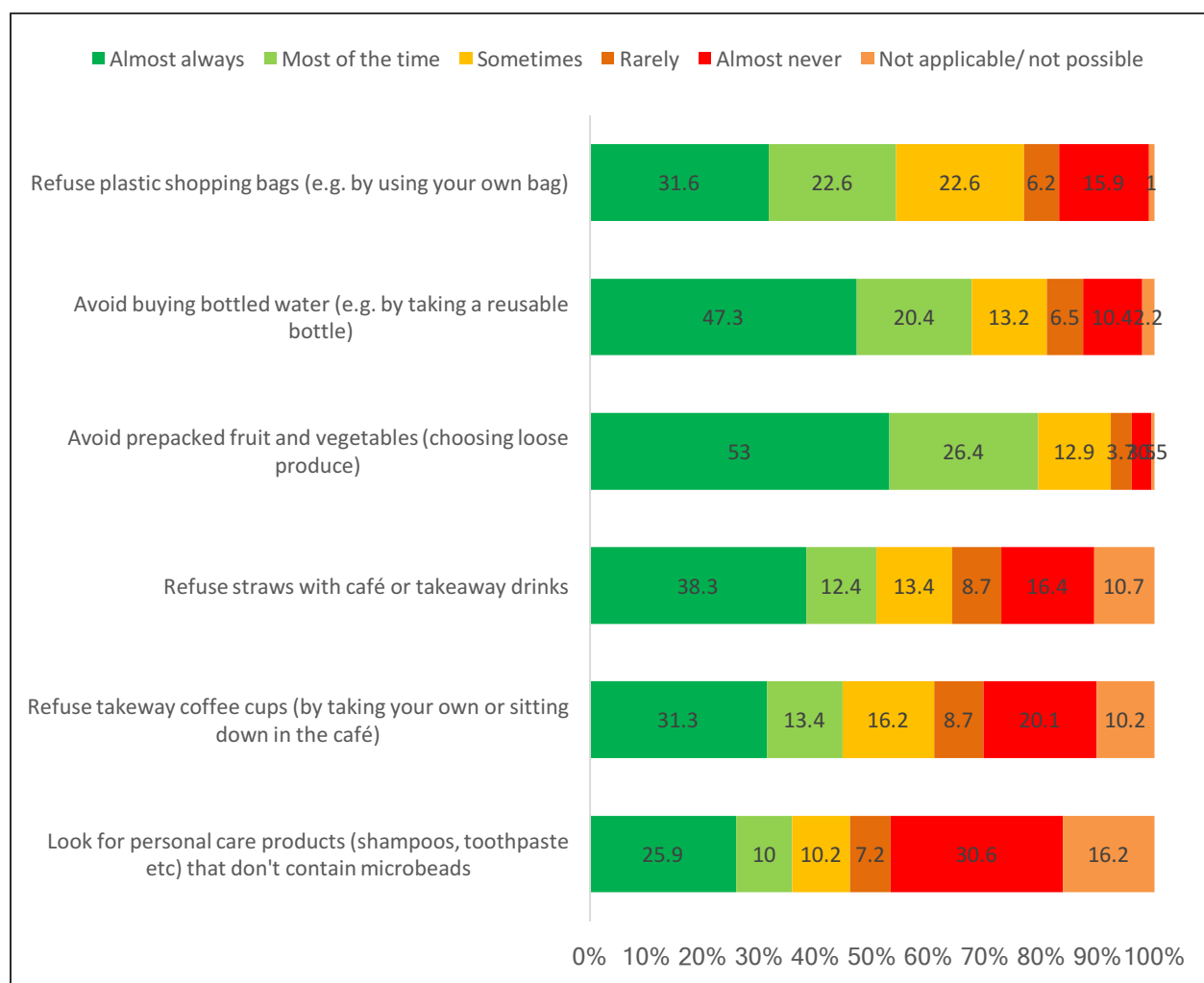
In recent years there has been a trend towards consumers choosing alternatives to single-use plastic bags at the grocery checkout. There has also been strong growth in participation in Plastic Free July and the beginnings of a mainstream awareness of the waste associated with plastic bottles, straws and takeaway coffee cups.

This survey measures the degree to which avoiding common plastic products is becoming normalised and the consistency of consumers in utilising alternatives to plastics. Of particular interest are the barriers to adoption of the alternatives to single-use plastic bags. The survey explores the barriers to reusable bags and the willingness of consumers to find alternatives to repurposing single-use bags as household bin liners.

4.2.1 Avoiding plastics

Making the choice to avoid plastic packaging is a 'repeat behaviour' rather than a once only decision. The best measure of repeat behaviours is to track the consistency with which consumers substitute a plastic free solution.

Figure 4: Consumer consistency in avoiding plastic products



Q2 For each of the choices below, please tell us how consistently you choose alternatives to single-use plastics? (n=402)

The results show that the vast majority of Western Australians at least 'sometimes' engage in choices which avoid plastics. Some behaviours can be avoided altogether, such as 10% of the population never buying café drinks. Other behaviours are well normalised, for example around 50% of the community 'almost always' avoiding bottled water or prepacked produce. Choosing to avoid prepacked produce has few barriers because most supermarkets offer fresh produce with the packed or loose options both on the shelves.

It is interesting to see that refusing plastic shopping bags has one of the lowest 'almost always' scores, showing that there is a gap between the intention (participating in the behaviour at least sometimes) and the actual behaviour. Nudge strategies could be effective in closing this gap.

It is also interesting to see that around 16% of the community 'almost never' refuse plastic shopping bags. Regulating to remove bags as an option is an effective strategy to constrain the choices of a minority of consumers.

4.2.2 Barriers to reusable bags

Given the complexity of the behaviours required to avoid single use plastic shopping bags, the survey explored the barriers to (consistent) action.

Figure 5: Barriers to always using a reusable bag (% of respondents)



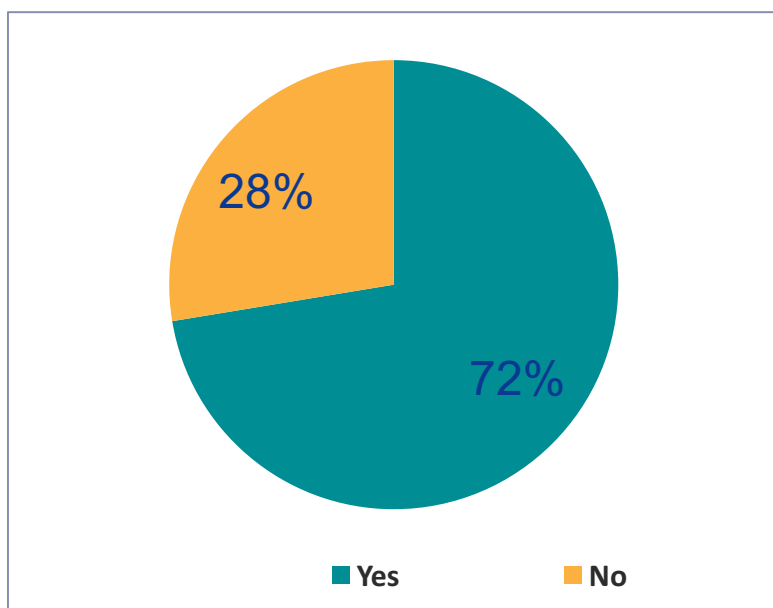
Q6 What prevents you from taking your own reusable bags for the grocery shopping? (n=402)

These responses show that about 65% of consumers do not, at least some of the time, use their own bags for the grocery shopping. These people have, on average, 1.5 issues or reasons causing them to need to accept a single-use bag at the checkout. The main cause for needing to accept single use bags comes down to not planning the shopping trip. A minority, around 7% of consumers make a more deliberate choice to consume single-use bags. Top amongst these deliberate choices is to reuse the lightweight bag as a bin liner at home.

4.2.3 Preference for alternatives to bags as bin liners

Consistent with the finding that around 70% of consumers accept lightweight plastic bags at least some of the time, 72% report using these bags to line the kitchen bin.

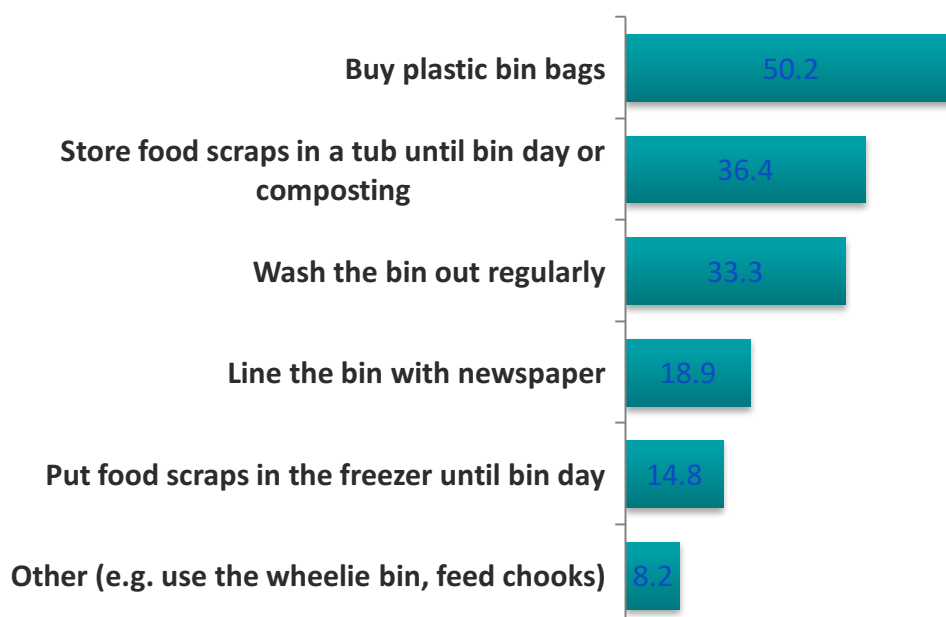
Figure 6: Prevalence of reusing lightweight plastic bags



Q7.1. Do you reuse your plastic shopping bags to line your kitchen bin? n=402

The 291 respondents that reported using lightweight bags as bin liners were then asked which alternative they would adopt if lightweight bags were banned. They nominated 1.6 alternative solutions per household.

Figure 7: Potential alternatives to using lightweight bags as bin liners (% of respondents)



Q7.2 If lightweight plastic bags were to be banned, which of these alternatives would you use to keep your kitchen bin clean?? (n=291 currently using lightweight bags as bin liners)

The propensity of respondents to nominate alternatives to using lightweight plastic bags as bin liners, suggests that the community will adapt quickly to a single-use plastic bag ban. This is consistent with reports from other jurisdictions where the purchasing of bin liner bags increased initially, in response to a single-use bag ban, and then declined.

4.3 Policy support

In the context of the multitude of issues with plastic products and the number of plastic products in regular use, the survey tested the strength of community support for seven policy responses.

4.3.1 Response to emerging policy issues

Similar to the earlier measure of strength of concern for environmental issues, policy support (or opposition) was measured on a scale response. The proportion of the population in favour of each policy initiative and the net support (being the support for minus the opposition to the policy initiative) are useful measures to guide policy making.

There is strong support for each of the policy measures tested, with very strong support for the container deposit scheme and the ban on lightweight plastic bags. Neither of these two policy measures attracted much opposition, resulting in very strong nett support.

Compared to the level of support for a ban on lightweight plastic bags, the support for extending the ban to biodegradable and compostable bags was lower at 69% support and 52% net support (52% nett support translates into a two-thirds majority), although support converged when the impacts of biodegradable and compostable bags was explained; discussed at 4.3.2 below.

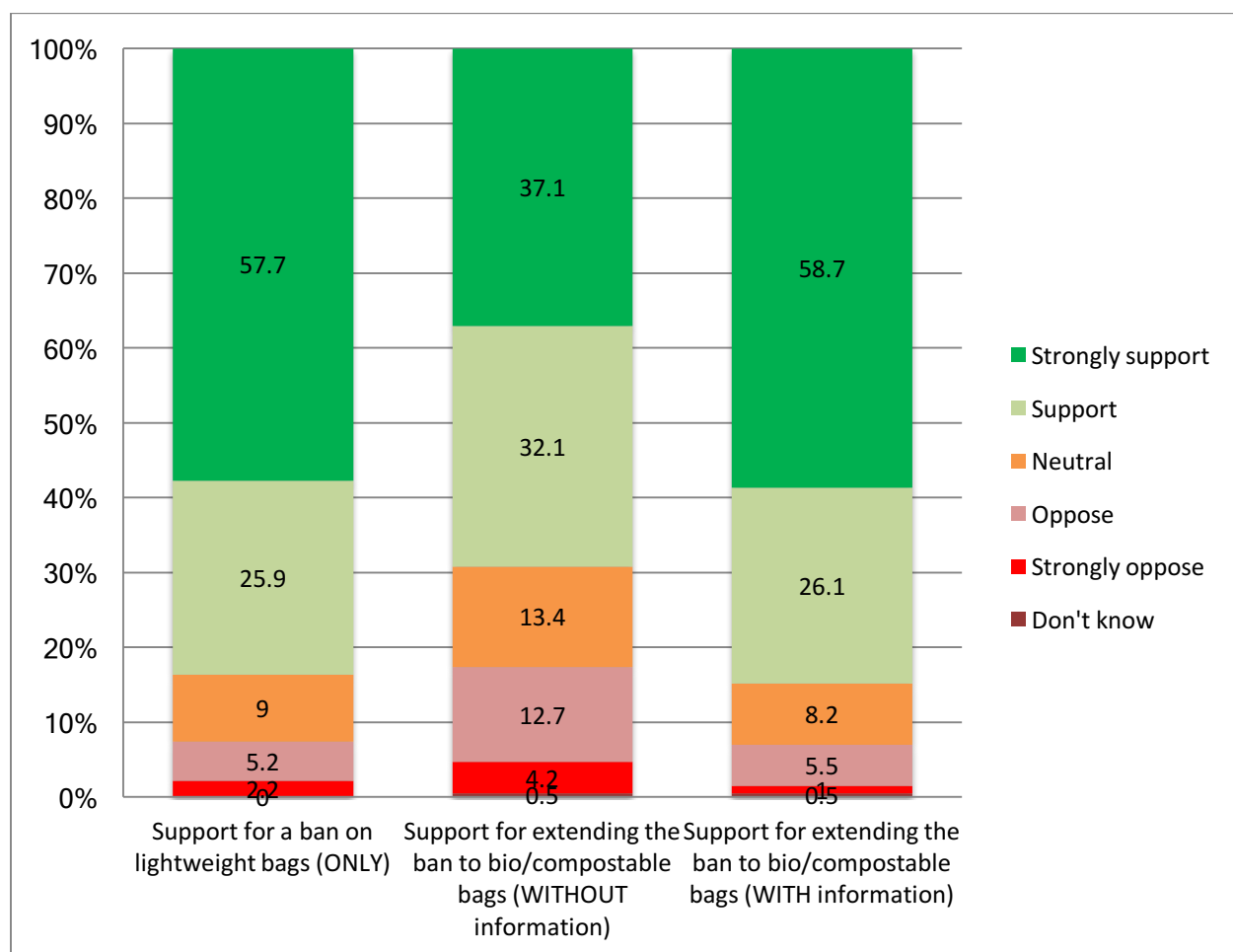
Figure 8: Community support for policy and regulation to reduce plastic waste

Q3 How strongly do you support or oppose each of the following methods to reduce plastic pollution? (n=402)

4.3.2 Change in response to information on the properties of plastics

It is likely that many respondents were not aware that biodegradable and compostable plastic bags do not break down quickly in marine or terrestrial environments, or in landfill (they typically require industrial composting). Having measured the policy support in the absence of this relevant information, respondents were informed of the issues and asked to rate the policy response again.

Figure 9: Change in support for a ban on biodegradable and compostable bags, following presentation of the issues (compared to support for a ban on lightweight plastic bags only)



Nett support
(top 2 minus
bottom 2):

+76.1

Nett support
(top 2 minus
bottom 2):

+52.2

**With
Info**

Nett support
(top 2 minus
bottom 2):

+78.4

Q4 Studies have shown that biodegradable and compostable bags don't break down properly in landfill or in waterways. Considering this finding, how strongly do you support or oppose? (n=402)

Providing information on the limitations of biodegradable and compostable bags has the effect of shifting community support for a ban on these bag types to the same level of support as a ban on standard lightweight bags. Providing the information changed the nett support (i.e. % support minus % oppose) for a ban on biodegradable and compostable lightweight plastic bags from +52.2 to +78.4.

5 Conclusions

The community in Western Australia is very concerned about the impacts of plastics on the environment. This concern can be used to frame communications in support of a ban on lightweight single-use plastic bags and on the practical behaviour changes that households will need to make in adapting to the ban.

There is some disconnect between the concerns of the community and individual action to avoid the consumption, disposal and littering of plastics. Such disconnects are common because actions are driven by prevailing behavioural norms, rather than by attitudes.

The attitude-behaviour disconnect, combined with the very strong community support for regulator action will make a ban on lightweight single-use plastic bags effective and durable. The community response to information on the problems with biodegradable and compostable bags shows that inclusion of these bag types in the ban will be widely accepted.

The community view on plastic bag avoidance is very similar in strength to community support of Waterwise messages in Western Australia. There are only very small variations in attitudes, behaviours and policy support across the regions of Western Australia and across age groups.

The major communications challenges with the introduction of a ban on lightweight single-use plastic bags, including biodegradable and compostable types, are to assist consumers to remember their reusable bags and to be aware of the alternatives (boxes or purchase of durable bags) at the checkout.

Secondary use issues, such as households repurposing lightweight shopping bags as bin liners, appears easily resolved through norming the variety of solutions that are already being adopted by households.

A. Appendix – Survey Instrument

Boomerang Alliance – Plastic Waste and Recycling Survey

Hello, I'm <name> calling from Thinkfield on behalf of the Boomerang Alliance. We are developing resources to help WA households to Avoid, Reduce, Reuse and Recycle plastics. To do this we need your views on how we use and dispose of common "single-use" plastics. The survey will take about 6 minutes.

Can I speak to the person in the household who is over 18 years old and whose birthday is next?

[REPEAT INTRO IF NEW RESPONDENT COME ON THE LINE]

If you have a few minutes we can run through the survey now.

[NOTE TO INTERVIEWER: If the respondent asks who the Boomerang Alliance is, they are a not for profit association of community and conservation groups working to reduce plastic pollution. No personal information will be provided from the survey to Boomerang Alliance]

OK = proceed

NO THANKS [AVOID] = close

NO TIME NOW = arrange call back if the respondent asks for that:

Name _____

Best Number _____

Best day/ time _____

Firstly, some questions about your household.

A. What is the post code for the suburb you live in?

- _____
- Don't know

If post code 'Don't know', record home suburb _____

B. What age-group are you in?

- 18-19
- 20-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49

- 50-54
- 55-59
- 60-64
- 65 and over
- Rather not say [AVOID]

C. Record gender [DO NOT READ OUT]

- Male
- Female

[CHECK QUOTAS AND CLOSE IF QUOTA IS FULL]

Now, some questions about your views on plastic waste, recycling and the environment.

1. How concerned are you about each of the following issues with single-use plastics:

ISSUE	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned	Can't say/ don't know
Plastics end up polluting our waterways and ocean					
Plastic litter is harming our wildlife					
Many plastics cannot be recycled					
Plastics don't compost or breakdown in landfill					
Plastics use oil resources and contribute to global warming					
Many plastics are harmful to human health					

2. For each of the choices below, please tell us how consistently you choose alternatives to single-use plastics:

ACTION	Almost always	Most of the time	Sometimes	Rarely	Almost never	Other: (Not applicable / not possible/ don't know)
Refuse plastic shopping bags (e.g. by using your own bag)						
Avoid buying bottled water (e.g. by taking a reusable bottle)						
Avoid pre-packed fruit and vegetables (choosing loose produce)						
Refuse straws with café or take-away drinks						
Refuse take-away coffee cups (by taking your own or sitting down in the café)						
Look for personal care products (body wash, toothpaste etc.) that don't contain plastic microbeads						

3. How strongly do you support or oppose each of the following methods to reduce plastic pollution?

ACTION	Strongly support	Support	Neutral	Oppose	Strongly oppose	Don't know [AVOID]
A ban on lightweight plastic bags (similar to the bans in South Australia, Northern Territory, ACT and Tasmania)						
A ban on lightweight plastic and biodegradable/compostable bags (similar to the proposed ban in Queensland)						
A ban on all plastic bags						
A 10 cents refund on each plastic bottle returned for recycling						
Suppliers to be responsible for recycling packaging						
A ban on deliberate releasing of helium party balloons						
A ban on personal care products (body wash, toothpaste etc.) that contain plastic microbeads						

4. Studies have shown that biodegradable and compostable bags don't break down properly in landfill or in waterways. Considering this finding, how strongly do you support or oppose?

ACTION	Strongly support	Support	Neutral	Oppose	Strongly oppose	Don't know [AVOID]
A ban on lightweight plastic <u>and</u> biodegradable/ compostable bags						

5. How frequently do you (personally) shop for groceries?

- Almost daily
- A few times a week
- About weekly
- About monthly
- Almost never

6. What prevents you from taking your own reusable bags for the grocery shopping? [DO NOT PROMPT, ACCEPT MULTIPLE]

- Nothing, I ALWAYS take my own bags
- I forget my own bags
- I buy more than I had planned
- When I had not planned to shop at all
- I need the bags to use as bin liners
- Habit, I always use plastic bags
- I'm not concerned about plastic bags
- Other, specify _____
- Not applicable/ I never grocery shop

7.1 Do you reuse plastic shopping bags to line your kitchen bin?

- Yes
- No

[IF 6.1 = No, go to 7]

7.2 If lightweight plastic bags were to be banned, which of these alternatives would you use to keep your kitchen bin clean? [ACCEPT MULTIPLE]

- Store food scraps in a reusable tub until bin day or composting

- Put food scraps into the freezer until bin day
- Line the bin with newspaper
- Wash the bin out regularly (no liner)
- Buy plastic bin bags
- Other, specify _____

Finally, a couple of questions about your household.

8. Which of the following best describes your household

- Single occupant
- Couple with no children at home
- Family with children at home
- Share house
- Other, specify _____ -

9. Are you currently in paid employment at all, part-time or full-time

- Not at all
- Part time
- Full time (35 hrs a week or more)
- Rather not say [AVOID]

Thank you for your help.

Our Privacy Act statement is: As this is market research, it is carried out in compliance with the Privacy Act and the information you provided will be used for research purposes only. Under the Privacy Act you have the right to request access to the information you have provided until this time. If you have any queries, you can call the Market Research Society's free Survey Line on 1300 364 830.

B. Appendix – Community response by geographical region

		Metro	South West	Goldfield Esperance	Mid West	Kimberly Pilbara	All Areas
Q1_1 Plastics end up polluting our waterways and ocean	Very concerned	73%	78%	80%	78%	78%	75%
	Somewhat concerned	24%	20%	17%	17%	20%	22%
	Not very concerned	2%	0%	0%	5%	3%	2%
	Not at all concerned	0%	3%	3%	0%	0%	1%
	Can't say/ don't know	0%	0%	0%	0%	0%	0%
Q1_2 Plastic litter is harming our wildlife	Very concerned	76%	85%	73%	78%	78%	77%
	Somewhat concerned	22%	13%	27%	17%	20%	21%
	Not very concerned	2%	0%	0%	2%	0%	1%
	Not at all concerned	0%	3%	0%	2%	3%	1%
	Can't say/ don't know	0%	0%	0%	0%	0%	0%
Q1_3 Many plastics cannot be recycled	Very concerned	57%	78%	77%	61%	70%	62%
	Somewhat concerned	35%	18%	13%	29%	28%	30%
	Not very concerned	4%	0%	7%	7%	3%	4%
	Not at all concerned	2%	3%	0%	0%	0%	1%
	Can't say/ don't know	3%	3%	3%	2%	0%	2%
Q1_4 Plastics don't compost or breakdown in landfill	Very concerned	69%	78%	67%	76%	75%	71%
	Somewhat concerned	26%	23%	27%	20%	18%	24%
	Not very concerned	4%	0%	3%	5%	5%	3%
	Not at all concerned	1%	0%	0%	0%	3%	1%
	Can't say/ don't know	0%	0%	3%	0%	0%	0%
Q1_5 Plastics use oil resources and contribute to global warming	Very concerned	56%	55%	53%	49%	63%	56%
	Somewhat concerned	29%	30%	23%	37%	18%	29%
	Not very concerned	10%	5%	10%	5%	15%	9%
	Not at all concerned	2%	0%	3%	2%	3%	2%
	Can't say/ don't know	2%	10%	10%	7%	3%	4%
Q1_6 Many plastics are harmful to human health	Very concerned	58%	63%	63%	63%	65%	60%
	Somewhat concerned	31%	28%	30%	27%	23%	30%
	Not very concerned	6%	5%	0%	2%	8%	5%
	Not at all concerned	3%	3%	0%	5%	5%	3%
	Can't say/ don't know	2%	3%	7%	2%	0%	2%

		Metro	South West	Goldfield Esperance	Mid West	Kimberly Pilbara	All Areas
Q2_1 Refuse plastic shopping bags (e.g. by using your own bag)	Almost always	31%	23%	37%	46%	25%	32%
	Most of the time	23%	30%	33%	15%	15%	23%
	Sometimes	24%	28%	7%	15%	33%	23%
	Rarely	6%	8%	7%	5%	5%	6%
	Almost never	16%	13%	17%	20%	15%	16%
Q2_2 Avoid buying bottled water (e.g. by taking a reusable bottle)	Other: (Not applicable/ not possible/ don't know)	0%	0%	0%	0%	8%	1%
	Almost always	48%	55%	40%	54%	35%	47%
	Most of the time	22%	15%	20%	22%	15%	20%
	Sometimes	16%	8%	10%	0%	18%	13%
	Rarely	5%	5%	10%	5%	15%	6%
Q2_3 Avoid prepacked fruit and vegetables (choosing loose produce)	Almost never	8%	13%	13%	15%	15%	10%
	Other: (Not applicable/ not possible/ don't know)	1%	5%	7%	5%	3%	2%
	Almost always	51%	45%	47%	66%	63%	53%
	Most of the time	27%	33%	27%	24%	20%	26%
	Sometimes	13%	18%	17%	5%	13%	13%
Q2_4 Refuse straws with café or takeaway drinks	Rarely	5%	3%	7%	0%	0%	4%
	Almost never	4%	3%	3%	5%	3%	3%
	Other: (Not applicable/ not possible/ don't know)	0%	0%	0%	0%	3%	0%
	Almost always	38%	40%	30%	41%	40%	38%
	Most of the time	13%	13%	10%	10%	15%	12%
Q2_5 Refuse takeaway coffee cups (by taking your own or sitting down in the café)	Sometimes	16%	8%	17%	7%	8%	13%
	Rarely	8%	10%	10%	10%	13%	9%
	Almost never	18%	13%	13%	12%	20%	16%
	Other: (Not applicable/ not possible/ don't know)	8%	18%	20%	20%	5%	11%
	Almost always	33%	38%	37%	29%	15%	31%
Q2_6 Look for personal care products (shampoos, toothpaste etc.) that don't contain plastic microbeads	Most of the time	12%	23%	7%	17%	18%	13%
	Sometimes	17%	13%	3%	17%	23%	16%
	Rarely	10%	8%	10%	5%	3%	9%
	Almost never	22%	8%	17%	17%	30%	20%
	Other: (Not applicable/ not possible/ don't know)	7%	13%	27%	15%	13%	10%
	Almost always	27%	28%	10%	24%	28%	26%
	Most of the time	10%	13%	13%	7%	10%	10%
	Sometimes	11%	3%	3%	17%	10%	10%
	Rarely	6%	8%	17%	10%	3%	7%
	Almost never	29%	30%	33%	24%	43%	31%
	Other: (Not applicable/ not possible/ don't know)	16%	20%	23%	17%	8%	16%

		Metro	South West	Goldfield Esperance	Mid West	Kimberly Pilbara	All Areas
Q3_1 A ban on lightweight plastic bags (similar to the bans in South Australia, Northern Territory, ACT and Tasmania)	Strongly support	57%	58%	63%	63%	55%	58%
	Support	29%	30%	13%	15%	25%	26%
	Neutral	9%	8%	7%	15%	8%	9%
	Oppose	4%	3%	13%	5%	13%	5%
	Strongly oppose	2%	3%	3%	2%	0%	2%
	Don't know [AVOID]	0%	0%	0%	0%	0%	0%
Q3_2 A ban on lightweight plastic and biodegradable/compostable bags (similar to the proposed ban in Queensland)	Strongly support	34%	33%	57%	46%	38%	37%
	Support	34%	40%	20%	22%	33%	32%
	Neutral	17%	8%	3%	10%	10%	13%
	Oppose	10%	15%	13%	20%	18%	13%
	Strongly oppose	4%	5%	7%	2%	3%	4%
	Don't know [AVOID]	1%	0%	0%	0%	0%	0%
Q3_3 A ban on all plastic bags	Strongly support	38%	43%	57%	39%	40%	40%
	Support	30%	25%	23%	34%	38%	30%
	Neutral	16%	18%	10%	15%	5%	15%
	Oppose	11%	13%	3%	7%	13%	10%
	Strongly oppose	4%	3%	7%	5%	5%	4%
	Don't know [AVOID]	1%	0%	0%	0%	0%	0%
Q3_4 A 10 cents refund on each plastic bottle returned for recycling	Strongly support	64%	75%	80%	61%	75%	67%
	Support	29%	20%	10%	27%	23%	26%
	Neutral	5%	3%	0%	10%	0%	4%
	Oppose	2%	3%	7%	2%	3%	2%
	Strongly oppose	1%	0%	3%	0%	0%	1%
	Don't know [AVOID]	0%	0%	0%	0%	0%	0%
Q3_5 Suppliers to be responsible for recycling packaging	Strongly support	52%	55%	60%	46%	60%	53%
	Support	35%	28%	23%	34%	20%	32%
	Neutral	8%	13%	13%	10%	13%	9%
	Oppose	4%	5%	3%	7%	3%	4%
	Strongly oppose	2%	0%	0%	0%	3%	1%
	Don't know [AVOID]	0%	0%	0%	2%	3%	0%
Q3_6 A ban on deliberate releasing of helium party balloons	Strongly support	36%	43%	43%	46%	40%	39%
	Support	29%	28%	20%	29%	25%	28%
	Neutral	23%	20%	23%	12%	20%	21%
	Oppose	9%	3%	3%	5%	13%	8%
	Strongly oppose	1%	0%	7%	2%	0%	1%
	Don't know [AVOID]	2%	8%	3%	5%	3%	3%
Q3_7 A ban on personal care products (shampoos, toothpaste etc.) that contain plastic microbeads	Strongly support	43%	63%	53%	32%	50%	45%
	Support	27%	18%	23%	37%	23%	26%
	Neutral	19%	15%	10%	12%	8%	16%
	Oppose	3%	0%	0%	5%	5%	3%
	Strongly oppose	1%	0%	3%	0%	3%	1%
	Don't know [AVOID]	7%	5%	10%	15%	13%	8%
Q4_1 A ban on lightweight plastic and biodegradable/compostable bags (With information)	Strongly support	59%	60%	67%	56%	50%	59%
	Support	26%	28%	17%	24%	33%	26%
	Neutral	8%	8%	7%	12%	8%	8%
	Oppose	4%	5%	10%	5%	10%	5%
	Strongly oppose	1%	0%	0%	2%	0%	1%
	Don't know [AVOID]	1%	0%	0%	0%	0%	0%

		Metro	South West	Goldfield Esperance	Mid West	Kimberly Pilbara	All Areas
Q5. How frequently do you (personally) shop for groceries?	Almost daily	10%	8%	3%	2%	5%	8%
	A few times a week	36%	43%	33%	27%	50%	37%
	About weekly	48%	45%	60%	59%	38%	49%
	About monthly	3%	3%	3%	10%	5%	4%
	Almost never	3%	3%	0%	2%	3%	2%
Q6_What prevents you from taking your own reusable bags for the grocery shopping?	Q6_1 Nothing, I ALWAYS take my own bags	30%	40%	57%	49%	30%	35%
	Q6_2 I forget my own bags	49%	48%	37%	34%	43%	46%
	Q6_3 I buy more than I had planned	6%	5%	7%	0%	18%	7%
	Q6_4 When I had not planned to shop at all	12%	10%	10%	2%	13%	10%
	Q6_5 I need the bags to use as bin liners	8%	10%	0%	5%	0%	7%
	Q6_6 Habit, I always use plastic bags	6%	8%	0%	2%	5%	5%
	Q6_7 I'm not concerned about plastic bags	1%	0%	7%	5%	0%	2%
	Q6_8 Other, specify	15%	5%	10%	12%	8%	13%
	Q6_9 Not applicable/ I never grocery shop	0%	0%	0%	0%	3%	0%
7.1 Do you reuse plastic shopping bags to line your kitchen bin?	Yes	71%	78%	70%	73%	78%	72%
	No	29%	23%	30%	27%	23%	28%
Q7_If lightweight plastic bags were to be banned, which of these alternatives would you use to keep your kitchen bin clean?	Q7_2_1 Store food scraps in a reusable tub until bin day or composting	36%	45%	52%	27%	29%	36%
	Q7_2_2 Put food scraps into the freezer until bin day	14%	26%	0%	10%	23%	15%
	Q7_2_3 Line the bin with newspaper	19%	29%	33%	13%	6%	19%
	Q7_2_4 Wash the bin out regularly (no liner)	30%	52%	43%	33%	26%	33%
	Q7_2_5 Buy plastic bin bags	54%	48%	38%	37%	48%	50%
	Q7_2_6 Other, specify	5%	6%	14%	23%	10%	8%

C.Appendix – Community response by age group

		18-34	35-54	55+	All Ages
Q1_1 Plastics end up polluting our waterways and ocean	Very concerned	59%	78%	79%	75%
	Somewhat concerned	37%	20%	19%	22%
	Not very concerned	3%	2%	1%	2%
	Not at all concerned	1%	0%	1%	1%
	Can't say/ don't know	0%	0%	0%	0%
Q1_2 Plastic litter is harming our wildlife	Very concerned	72%	79%	77%	77%
	Somewhat concerned	26%	19%	20%	21%
	Not very concerned	1%	1%	2%	2%
	Not at all concerned	0%	1%	1%	1%
	Can't say/ don't know	0%	0%	0%	0%
Q1_3 Many plastics cannot be recycled	Very concerned	41%	63%	70%	62%
	Somewhat concerned	46%	32%	22%	30%
	Not very concerned	9%	2%	3%	4%
	Not at all concerned	0%	1%	2%	1%
	Can't say/ don't know	4%	2%	2%	3%
Q1_4 Plastics don't compost or breakdown in landfill	Very concerned	60%	70%	76%	71%
	Somewhat concerned	32%	27%	19%	24%
	Not very concerned	7%	2%	4%	4%
	Not at all concerned	0%	1%	1%	1%
	Can't say/ don't know	0%	1%	1%	1%
Q1_5 Plastics use oil resources and contribute to global warming	Very concerned	51%	61%	52%	56%
	Somewhat concerned	32%	27%	29%	29%
	Not very concerned	15%	9%	7%	9%
	Not at all concerned	0%	2%	4%	2%
	Can't say/ don't know	1%	1%	8%	4%
Q1_6 Many plastics are harmful to human health	Very concerned	50%	66%	58%	60%
	Somewhat concerned	44%	25%	28%	30%
	Not very concerned	4%	5%	5%	5%
	Not at all concerned	1%	2%	5%	3%
	Can't say/ don't know	0%	1%	4%	2%

		18-34	35-54	55+	All Ages
Q2_1 Refuse plastic shopping bags (e.g. by using your own bag)	Almost always	28%	31%	34%	32%
	Most of the time	18%	24%	23%	23%
	Sometimes	21%	26%	20%	23%
	Rarely	9%	7%	4%	6%
	Almost never	25%	11%	17%	16%
	Other: (Not applicable/ not possible/ don't know)	0%	1%	1%	1%
Q2_2 Avoid buying bottled water (e.g. by taking a reusable bottle)	Almost always	41%	46%	50%	47%
	Most of the time	25%	21%	19%	21%
	Sometimes	16%	16%	9%	13%
	Rarely	6%	8%	5%	7%
	Almost never	12%	7%	13%	11%
	Other: (Not applicable/ not possible/ don't know)	0%	1%	4%	2%
Q2_3 Avoid prepacked fruit and vegetables (choosing loose produce)	Almost always	54%	48%	57%	53%
	Most of the time	26%	28%	25%	27%
	Sometimes	7%	16%	12%	13%
	Rarely	6%	5%	2%	4%
	Almost never	4%	2%	4%	4%
	Other: (Not applicable/ not possible/ don't know)	1%	1%	0%	1%
Q2_4 Refuse straws with café or takeaway drinks	Almost always	31%	37%	42%	38%
	Most of the time	15%	16%	8%	13%
	Sometimes	16%	19%	7%	14%
	Rarely	9%	10%	7%	9%
	Almost never	26%	13%	16%	17%
	Other: (Not applicable/ not possible/ don't know)	3%	5%	20%	11%
Q2_5 Refuse takeaway coffee cups (by taking your own or sitting down in the café)	Almost always	22%	28%	38%	31%
	Most of the time	12%	18%	10%	14%
	Sometimes	22%	19%	11%	16%
	Rarely	10%	8%	9%	9%
	Almost never	29%	18%	19%	20%
	Other: (Not applicable/ not possible/ don't know)	4%	9%	14%	10%
Q2_6 Look for personal care products (shampoos, toothpaste etc.) that don't contain plastic microbeads	Almost always	26%	25%	26%	26%
	Most of the time	13%	8%	11%	10%
	Sometimes	10%	11%	10%	10%
	Rarely	7%	10%	5%	7%
	Almost never	32%	31%	30%	31%
	Other: (Not applicable/ not possible/ don't know)	10%	16%	19%	16%

		18-34	35-54	55+	All Ages
Q3_1 A ban on lightweight plastic bags (similar to the bans in South Australia, Northern Territory, ACT and Tasmania)	Strongly support	53%	57%	60%	58%
	Support	24%	28%	24%	26%
	Neutral	16%	7%	8%	9%
	Oppose	6%	6%	4%	5%
	Strongly oppose	1%	2%	3%	2%
	Don't know [AVOID]	0%	0%	0%	0%
Q3_2 A ban on lightweight plastic and biodegradable/compostable bags (similar to the proposed ban in Queensland)	Strongly support	32%	36%	40%	37%
	Support	29%	36%	30%	32%
	Neutral	26%	10%	11%	13%
	Oppose	7%	15%	13%	13%
	Strongly oppose	4%	2%	7%	4%
	Don't know [AVOID]	0%	1%	1%	1%
Q3_3 A ban on all plastic bags	Strongly support	37%	38%	44%	40%
	Support	31%	35%	26%	30%
	Neutral	24%	9%	16%	15%
	Oppose	7%	12%	10%	11%
	Strongly oppose	1%	5%	4%	4%
	Don't know [AVOID]	0%	1%	0%	1%
Q3_4 A 10 cents refund on each plastic bottle returned for recycling	Strongly support	69%	65%	68%	67%
	Support	22%	30%	23%	26%
	Neutral	9%	2%	5%	4%
	Oppose	0%	2%	4%	3%
	Strongly oppose	0%	1%	1%	1%
	Don't know [AVOID]	0%	0%	0%	0%
Q3_5 Suppliers to be responsible for recycling packaging	Strongly support	50%	54%	53%	53%
	Support	34%	34%	29%	32%
	Neutral	12%	7%	11%	10%
	Oppose	3%	3%	5%	4%
	Strongly oppose	1%	2%	1%	1%
	Don't know [AVOID]	0%	0%	1%	1%
Q3_6 A ban on deliberate releasing of helium party balloons	Strongly support	29%	38%	43%	38%
	Support	19%	38%	23%	28%
	Neutral	41%	15%	19%	21%
	Oppose	9%	8%	7%	8%
	Strongly oppose	0%	1%	3%	2%
	Don't know [AVOID]	1%	1%	5%	3%
Q3_7 A ban on personal care products (shampoos, toothpaste etc.) that contain plastic microbeads	Strongly support	38%	46%	47%	45%
	Support	35%	27%	22%	27%
	Neutral	24%	15%	14%	16%
	Oppose	0%	3%	4%	3%
	Strongly oppose	1%	1%	1%	1%
	Don't know [AVOID]	1%	8%	11%	9%
Q4_1 A ban on lightweight plastic and biodegradable/compostable bags (With information)	Strongly support	44%	60%	63%	59%
	Support	41%	25%	22%	26%
	Neutral	12%	8%	7%	8%
	Oppose	1%	6%	7%	6%
	Strongly oppose	1%	0%	2%	1%
	Don't know [AVOID]	0%	1%	0%	1%

		18-34	35-54	55+	All Ages
Q5. How frequently do you (personally) shop for groceries?	Almost daily	4%	9%	8%	8%
	A few times a week	26%	39%	40%	37%
	About weekly	59%	48%	45%	49%
	About monthly	7%	2%	4%	4%
	Almost never	3%	2%	3%	3%
Q6_ What prevents you from taking your own reusable bags for the grocery shopping?	Q6_1 Nothing, I ALWAYS take my own bags	26%	33%	41%	35%
	Q6_2 I forget my own bags	50%	45%	44%	46%
	Q6_3 I buy more than I had planned	7%	9%	4%	7%
	Q6_4 When I had not planned to shop at all	13%	11%	9%	11%
	Q6_5 I need the bags to use as bin liners	3%	7%	8%	7%
	Q6_6 Habit, I always use plastic bags	7%	7%	2%	5%
	Q6_7 I'm not concerned about plastic bags	1%	1%	2%	2%
	Q6_8 Other, specify	22%	12%	10%	13%
	Q6_9 Not applicable/ I never grocery shop	0%	1%	1%	1%
7.1 Do you reuse plastic shopping bags to line your kitchen bin?	Yes	69%	78%	69%	73%
	No	31%	22%	31%	28%
Q7_ If lightweight plastic bags were to be banned, which of these alternatives would you use to keep your kitchen bin clean?	Q7_2_1 Store food scraps in a reusable tub until bin day or composting	38%	36%	36%	36%
	Q7_2_2 Put food scraps into the freezer until bin day	4%	23%	10%	15%
	Q7_2_3 Line the bin with newspaper	15%	19%	20%	19%
	Q7_2_4 Wash the bin out regularly (no liner)	28%	36%	32%	33%
	Q7_2_5 Buy plastic bin bags	68%	48%	46%	50%
	Q7_2_6 Other, specify	0%	6%	14%	8%