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Single-Use Plastics and Food Waste at Hornsby Farmers Markets and Community Events

A Report Produced for Hornsby Shire Council

**Ruth Barcan
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The analysis and recommendations presented in this research report are those of the author and do not necessarily reflect those of Hornsby Shire Council or Organic Food Markets.

Executive summary

The problem: Public awareness of the urgent problems caused by plastics, especially single-use plastics, has reached critical mass. Scientific research reveals the complex interrelationships between exponential plastic use and other issues of concern e.g. climate change, biodiversity loss and human and environmental health.

Limitations of dominant approaches to the reduction of plastic waste: The problem of how we can bring about environmental change is all too often reduced to a question about how we can get people to change their behaviour. But the magnitude and complexity of the plastics problem are such that only concerted action from government and businesses can address it at scale. Moreover, international research indicates that individual actions are best addressed not through information-intensive campaigns aimed at motivating people but through well-supported interventions at a material and structural level that make change inevitable.

The role of councils: As the tier of government most involved with the practicalities of waste management and with local community education, support and lifestyles, councils have a crucial role to play. Some local councils are beginning to take a role that goes well beyond an earlier paradigm of management, compliance and implementation. Councils are taking leading roles as models, enablers and indeed drivers of change. Their role of educating and promoting awareness among citizens is increasing, and new functions are emerging: some councils are starting to actively drive change at a policy level by lobbying governments and at a practical level by working with local businesses to foster change.

Core principles of effective responses: Trying to influence customer attitudes is neither needed nor effective in producing changes in behaviour. Nonetheless, consumer resistance to change is lowered when structural change initiatives are preceded and accompanied by informational and practical resources. Effective measures require policies that are broadly coherent across different contexts while remaining sensitive to subtleties.

The role of bans: Bans can be an effective mechanism for change, but care needs to be taken to ensure they are not piecemeal. Piecemeal bans can be counterproductive, since they typically lead to product switching by consumers and vendors, sometimes with minimal or even negative environmental benefits.

Recommendations: This report notes the almost universal public support for plastic reduction at Hornsby Farmers Market and recommends a phased-in ban on specific single-use items (large bags, cutlery, straws, plates and cups), and a negotiated strategy for reducing plastic produce bags and fruit/vegetable netting in the lead-up to an eventual ban. It recommends enlisting the support of community organisations and local businesses and proposes a number of initiatives to promote awareness of specific alternative products and specific questions about recycling. It also establishes some core principles for waste reduction at community events beyond the markets.

1 Introduction

1.1 *Aims*

This report provides Hornsby Shire Council with qualitative information about single-use plastics and food waste at the weekly Hornsby Farmers Markets. This information is designed to support Council's broader goal of developing of a nuanced and effective waste reduction policy across a range of operational and community contexts. To this end, the report also notes some indications from two community groups about their experiences organising a Council-supported community event and establishes some core principles for waste avoidance and recovery applicable beyond the market context.

1.2 *Rationale*

The devastating environmental impacts of plastics are well known. Popular anti-plastic sentiment is growing exponentially around the globe, with single-use plastics a particular point of focus. Agitation against food waste, while arguably less visible than plastic reduction campaigns, is also growing (Edwards & Mercer, 2013).

As the tier of government most directly charged with the daily mechanics of waste management and disposal, local government is at the forefront of this movement for change, and councils play a growing role as educators and promoters of sustainable lifestyles through programs of public education, activities and events.

Farmers markets are sites where new and revived patterns of sustainable food production and consumption are foregrounded and celebrated (Giampietri et al., 2016). They are also important contributors to Australian agriculture (Fielke & Bardsley, 2013), local economies (SAGE, 2015) and the life of the community (Brown & Miller, 2008). Hornsby Farmers Markets was chosen for a site-specific study as an important case in itself and as a window onto the evolving aspirations and practices of customers and small-business people alike.

Council has recently (July 2019) passed two motions endorsing the development of a policy on single-use plastics and low-waste events. It is hoped that this detailed qualitative study can feed into the development of Hornsby Shire Council waste policy beyond the markets by suggesting core principles for waste reduction at a variety of locations and events.

1.3 *Outline*

The report summarises the complex mesh of problems caused by the proliferation of plastics; some practical and conceptual obstacles to their resolution; key principles of effective interventions; and some of the initiatives being implemented at international, national and local scales. It outlines the key findings from engagement with Hornsby Farmers Market customers and stallholders and representatives of two community groups, situating these findings within the broader body of academic research on pro-environmental behaviour change. The resulting recommendations relate to the Farmers Markets but also establish some evidence-based principles for the development of a policy for community events more broadly.

1.4 Study methods

The study engaged market customers, stallholders and other community members between April and August 2019. It comprised:



Site visits and observations: 1 x 3-hour visit by a 2-person research team; 6 x 3-hour visits by 3 researchers; 1 x 4-hour visit by 3 Mandarin-speaking research assistants. Researchers made observational notes, conducted formal surveys, and held informal conversations with shoppers.



Customer surveys and informal conversations: 130 in situ surveys; 24 further online surveys (linked via the Markets Facebook page and a market-related email list).



Stallholder surveys and detailed conversations: Every stallholder present during the study period received an opportunity to participate. The differential pace and volume of trade meant that not all stallholders were able to fill in the survey in situ, so in many cases the researcher administered the survey orally and took detailed notes. Some stallholders preferred to contribute their views via conversation, and others chose to receive the survey link by email.



Structured conversations with detailed notetaking were held with a representative from two community groups about their experiences organising annual large-scale community events. The researcher attended one of the events in question for detailed observations.



Focus group: a follow-up focus group of market customers was held at the conclusion of the study to test out particular issues and predicaments that emerged in the data.



Analysis: The study combined data analysis of survey results with qualitative analysis of conversations and long-form survey answers. Findings were tested against and framed within academic scholarship about pro-environmental behaviour change and case studies of plastic-reduction initiatives in other contexts, including recent policy changes by markets and local Councils. A sample summary of initiatives is found in Appendix 7.2.

The results were fed back informally to the market operators for comment and query.

The study was approved by the University of Sydney Human Research Ethics Committee (project 2019/141).

2 Background: Responding to the plastic problem

2.1 The plastic problem

Plastic's attractive material properties – its versatility, durability and convenience – have embedded it in daily life such that it is no simple matter to extricate ourselves from the mesh of habits and practices it has brought about.

Plastic waste is widely recognised as an environmental scourge. Dizzying statistics regularly emerge: a million plastic bags are used around the globe every minute (Ocean Crusaders, 2019); enough plastic bags are used by Australians each year to circle the earth 42.5 times (Ocean Crusaders, 2019); the Great Pacific Garbage Patch is three times the size of France (Liu, 2018). The mind-boggling scale of these statistics makes impacts hard to visualise and comprehend, but one image has become lodged in the public mind: the scientific prediction that by 2050 there will be more plastics (by weight) than fish in the ocean (World Economic Forum, 2016).

In addition to visual pollution, problems with plastics include:

Carbon	<ul style="list-style-type: none"> • Non-renewable carbon-based product • Intensifies climate change 	<ul style="list-style-type: none"> • Over 90% of plastics produced are derived from virgin fossil feedstocks (World Economic Forum, 2016: 7); around 8% of the world's oil is used to make plastics (Thompson et al., 2009: 2162) • Marine plastics inhibit the ocean's ability to act as a carbon sink (Villarrubia-Gómez et al., 2018: 216)
Energy & water	<ul style="list-style-type: none"> • Energy and water intensive 	<ul style="list-style-type: none"> • The production of bottled water uses up to 2000 times the energy of tap water production (Gleick & Cooley, 2006: 6). It takes 2 litres of water to make a one-litre water bottle; thus, every one-litre bottle represents 3 litres of water (Pacific Institute 2007)
Durability	<ul style="list-style-type: none"> • Durability of plastic – historically, its greatest appeal – is now its biggest downside 	<ul style="list-style-type: none"> • Most plastics do not degrade, but remain in the environment at different scales: as macro plastics (large items like bottles and bags), microplastics (small fragments, often on beaches, also easy for fish and turtles to ingest) and nanoplastics (microscopic particles, difficult to perceive)
Disposability	<ul style="list-style-type: none"> • Plastics are entering the waste stream in ever-increasing volume 	<ul style="list-style-type: none"> • Around one-third of all plastic produced goes into packaging (Thompson et al., 2009: 2162) and 95% of plastic packaging, worth US\$80-120 billion a year, is single-use only (World Economic Forum, 2016: 6) • Recycling presents technical challenges (e.g. contamination; or multiple plastics in one object) and recycling rates for plastic are very low: 11.8% in Australia in 2016-17 (O'Farrell, 2018)
Risks to wildlife	<ul style="list-style-type: none"> • Physical and chemical 	<ul style="list-style-type: none"> • The distressing impacts of entanglement and choking on marine wildlife, sea and land birds and other wildlife (e.g. platypus) are well documented, as are the impacts of plastic ingestion • Less well known, perhaps, are the impacts that arise through the bioaccumulation of toxic chemicals. Marine plastics absorb chemical pollutants from the water and when ingested are potent agents for the bioaccumulation of toxic chemicals (Rochman, 2015: 121)
Environmental risks	<ul style="list-style-type: none"> • Environmental/health risks, including for humans 	<ul style="list-style-type: none"> • Plastic contamination occurs at the micro- and nano- level with resultant environmental and health risks, including the leaching of phthalates (Blaurock-Busch, 2009), whose endocrine-disrupting effects are a threat to human health and that of marine wildlife (Jenssen, 2006; Oehlmann, 2009) • Toxic leachate from landfills enters the water system. Some scientists call for plastic to be considered a hazardous waste (Rochman et al., 2013)

Fig. 1 Overview of problems associated with plastics

Such is the scale and complexity of the global plastic problem that scientists now recognise plastic as the distinctive geological marker of our era (Villarrubia-Gómez et al., 2018) and call for plastic pollution to be added to the list of planetary boundaries we are at risk of overstepping (Villarrubia-Gómez et al., 2018).

2.2 *Systemic challenges to responding effectively*

2.2.1 Dominant paradigms

Australia officially subscribes to the waste hierarchy, and its principles underpin core legislation (e.g. the *Waste Avoidance and Resource Recovery Act 2001*).

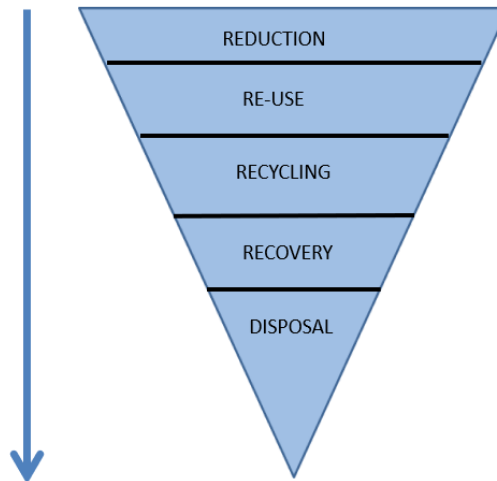


Fig. 2 The waste hierarchy

Recycling is third on the strategy endorsement hierarchy, and yet it gets the most sustained civic and popular attention (Watson & Lane, 2011: 133). The simple reason is that strategies 1 and 2 – reduction and re-use – contradict the “prevailing orthodoxy at all levels of government in Australia” of economic growth (Lane et al., 2009: 152).

Circular economy models seek to “decouple” economic growth from environmental degradation (Murray et al., 2017). While this development is clearly to be welcomed, and has been recently embraced by the NSW Government (NSW Environment Protection Authority, 2019), the concept is “more often celebrated than critically interrogated” (Gregson et al., 2018: 218) and it is important to note that circular economy models too can be at risk of prioritising resource recovery over avoidance and reduction strategies. The “limited policy engagement with reuse” (Watson & Lane, 2011: 133) means that reduction and re-use are mostly relegated to the level of individual, householder or NGO responsibility.

2.2.2 Questions of scale: Limits to the practical effectiveness of individual action

Encouraging individuals and households to “do their bit” is a core strategy of most public awareness campaigns and a staple of popular thinking. But much academic literature is highly critical of this dominant approach, which typically configures waste management “as a technological issue supported by norms and practices of individual responsabilization” (Hird et al., 2014: 443). While no one disputes that waste, like all environmental issues, needs to be an all-of-community responsibility, it is important to recognise the differences in scale and impact between householder action and corporate or government action. The individual responsibility paradigm obscures the role governments have in supporting unsustainable practices and their considerable power to create positive change (Shove, 2010: 1274). Governments can powerfully influence environmental outcomes not only by shaping legislation and policy but also via the scale of the procurement processes for which they are responsible. Similarly, corporate action has impacts at far greater scales than those of individual action, an observation made by a number of the respondents in this study.

2.2.3 Simplistic theories of behaviour change

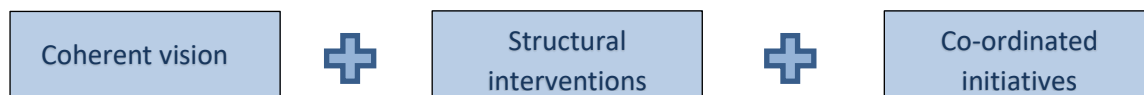
Environmental problems are often unreflexively framed “as a problem of human behaviour” (Shove, 2010: 1274). The question of how we can bring about environmental change is all too often reduced to a question about how we can get people to change their behaviour. Understanding the individual as the basic unit of social change is “a strikingly limited understanding of the social world and how it changes” (Shove, 2010: 1273).

A more structural model of social change also allows us to stop focusing on the celebrated difference between what people say they believe in and what they actually do – the repeatedly observed “values-action gap” (Kennedy et al., 2009): “After all, the gap is only mystifying if we suppose that values do (or should) translate into action” (Shove, 2010: 1276). Social practice theories and empirical studies alike make it clear that individuals’ failure to act cannot be substantially counteracted by more information or more persuasion. Put simply, behaviours emerge from a far greater range of factors than values and beliefs, and person-centred accounts of societal change are not only of limited use but can actually stand in the way of the structural and systemic action needed to generate large-scale change.

The limitations of person- and motivation-centred models of change help explain why change campaigns based on encouragement, information provision and motivation are of such limited effectiveness: the evidence “points mainly to failed or only marginally successful measures” (Walker, 2015: 47). The ineffectiveness of “information-intensive” behaviour change campaigns is noted in the literature (McKenzie-Mohr, 2000). An international review carried out for the Scottish Government of pro-environmental behaviour change initiatives concluded that:

Behaviour change initiatives will be more effective if they go beyond targeting the individual context (especially through informational campaigns) to include mechanisms which intervene in the social and material contexts. (Southerton et al., 2011: 3).

It also found that “coordinated initiatives across systems” following “a coherent vision” of the desired change produce much stronger outcomes than separate initiatives (3).



This is borne out empirically in the Australian context. A South Australian study of the supermarket plastic bag phase-out, for example, found that bans and other forms of proscription influence consumption *behaviours* but not consumption *attitudes* (Sharp, Høj & Wheeler, 2010). The study also found that the level of resistance to the plastic bag ban from those who were not voluntarily interested in reducing their consumption behaviours was low.

In other words, if the goal is to reduce the *use* of single-use plastics, then trying to influence customer attitudes is neither needed nor effective.

2.2.4 Unintended consequences of poorly thought through bans


These research findings point to the importance of structural and systemic measures such as bans. Despite this, and despite the strong appetite among some sections of the public for banning, bans need to be carefully thought through. Kneejerk or piecemeal bans can produce unforeseen results. For example, Starbucks’ planned replacement for plastic straws (a plastic sip-cup) will allegedly increase the total plastic (Mahdawi, 2018). Similarly, bans on bottled water at some colleges and universities resulted in a rise in consumption of soft drinks and iced tea – still in plastic bottles – resulting in a negative health impact for no environmental benefit (Mikhailovich & Fitzgerald 2014;

Berman & Johnson 2015). Many students simply bought water in plastic bottles elsewhere and brought it to campus.

Nonetheless, when well thought through and supported in the transition phase, bans are an important and effective strategy. Only five months after the Queensland ban on single-use bags came into force, 1.5 billion single use plastic bags were eliminated (National Retail Association, 2018). According to the National Retail Association, the decision by the two major supermarket chains to eliminate single-use bags and introduce a small fee other bags has led to a decline in single-use bags of over 80% (National Retail Association, 2018).

The second dimension of bans to note carefully is their differential impact on big versus small businesses.

2.3 *Effective responses: Key principles*



- ✓ Prioritise “upstream” approaches wherever possible.
- ✓ Co-ordinate a coherent and system-wide approach, while remaining sensitive to context and to the need to avoid unfair or unworkable impositions on smaller entities.
- ✓ Avoid individualistic and moralising framings like being “addicted” to plastic.
- ✓ Avoid tactics based on fear and blame; they are not needed and can even be counter-productive (Kolff 2018).
- ✓ Do not waste resources trying to “solve” the gap between what people say they believe in and what they do.

2.4 *Initiatives*

2.4.1 Table of initiatives at different scales

INTERNATIONAL	<ul style="list-style-type: none"> ✓ EU Parliament approves single-use plastic ban (plastic cutlery and plates, cotton buds, straws, drink-stirrers, and balloon sticks) (2018)
NATIONAL	<ul style="list-style-type: none"> ✓ Costa Rica will be the first country to ban single-use plastics. By 2021, plastic straws, cutlery, bags, bottles and cups will be banned. ✓ Canada aims to ban single-use plastics by 2021 ✓ UK progressing towards bans similar to EU ones, from 2020 ✓ India has announced bans on disposable plastics by 2022
STATE/REGIONAL	<ul style="list-style-type: none"> ✓ Peru restricts single-use plastics in significant natural and cultural sites (visitors cannot take them in) (2019) ✓ Bans on single-use plastic bags in all Australian states and territories except NSW (beginning with South Australia, 2009) ✓ South Australia now set to become the first Australian state to ban plastic straws, cutlery and stirrers, possibly extending to coffee cups and other disposables

LOCAL/CITY	<ul style="list-style-type: none"> ✓ Seattle (2018) and Washington (2019) ban plastic straws ✓ Mumbai: complete ban on single-use plastics (2018) ✓ Blue Mtns city council (2018) motion to phase out single-use plastics.
CORPORATIONS	<ul style="list-style-type: none"> ✓ McDonalds (UK) trials a phase-out of plastic straws (2018) ✓ Burger King phases out plastic straws (2018) and commits to recyclable, biodegradable or compostable packaging by 2025 ✓ American Airlines phasing out single-use plastics in their lounges (2018) ✓ United Airlines bans plastic straws from flights (2018) ✓ InterContinental hotels to ban plastic mini toiletries by 2021
MARKETS & EVENTS	<ul style="list-style-type: none"> ✓ South Melbourne market bans single-use plastic bags ✓ Queen Victoria Markets, Melbourne, phases out plastic bags and straws (May 2019), with 80% customer support and 70% trader support ✓ Launceston Harvest Market accelerates efforts to replace plastic bags with paper bags (2017) ✓ Mardi Gras bans plastic water bottles and balloons and announces phase-out of glitter (2019)

2.4.2 Detailed example of action taken by a local council: Northern Beaches Council

In August 2017, following sustained organising, lobbying and actions from concerned community groups, Northern Beaches Council introduced two strong waste policies: the [Single-Use Plastics](#) policy and the [Waste Minimisation for Functions and Events Approved by Council](#) policy.

These policies committed Council to a strong position in which it models, enables and supports progressive practice. They are significant for the following reasons:

- They focus on leadership as well as compliance and management.
- They are expansive, committing Council to a stance greater than a traditional “bins and litter” approach, including: a commitment to lobbying other levels of government to drive bans and policy changes; active research on alternatives to plastics; and influencing the business and retail community to provide products and services that do not rely on plastics.
- They foreground Council’s role as a change agent and developer of community capacity.
- They are comprehensive and ambitious: the events policy covers *all* events on Council property and public open space and prohibits items well beyond the now-expected ban on plastic bags to include polystyrene, single-use sachets, balloons, bottled water, cutlery and more.
- They include processes not just products: both policies commit Council and event organisers to sustainable procurement and require event organisers to take account of supply chains.
- The events policy is prescriptive, not aspirational (i.e. its stipulations are requirements not guidelines).
- They were enabled by a substantial prehistory of community-spirited activism, publicity and capacity building led by locals e.g. local sustainability groups providing business-engagement training to teach people how to educate and lobby local businesses in a non-confrontational and community-spirited way.

- They are underpinned by strong local support. 85% of responses during the month-long public exhibition of the draft policy were [in favour](#).
- Local businesses were also on board, with major retailers announcing during the exhibition period that they would phase out single-use plastic bags, as reported in the [livestream](#) of the Council meeting.
- They are impactful: Council’s Executive Manager Waste Management & Cleansing reported that previous large-scale events following similar stipulations achieved results of 97% waste diversion from landfill.

These policies indicate that strong responses are possible, and suggest some of their enabling conditions: leadership from Council; strong enlistment of local volunteer and community groups; and engagement with the local business community.

3 Findings

3.1 *Hornsby Farmers Markets*

The Hornsby Farmers Markets is a weekly food market held in Hornsby Mall. It is operated by Organic Food Markets by arrangement with Hornsby Shire Council. In addition to three fruit and vegetable stalls (1 organics, 2 conventional), other stalls sell food products (including bread, cakes, honey, cheeses, eggs and meat), potted plants, health products, and hot and cold food for consumption on site.

3.2 *Characteristics of the customer survey population*

3.2.1 Regularity of custom

Most people surveyed (**51%**) come weekly. Regularity of custom is significant, as it indicates a base on which new customer habits can be developed.

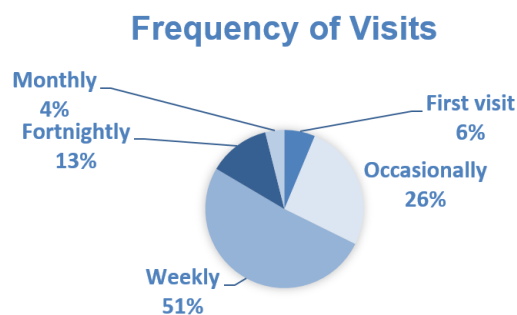


Fig. 3 Participant visitation patterns

There are many dedicated customers:



An 81-year old who comes weekly by public transport and brings all her own reusable items



A male customer who comes weekly from Gosford



A woman who comes weekly from Blacktown



A woman who comes weekly from Strathfield



A man who comes weekly from Five Dock by public transport



A man who comes weekly from Point Clare by public transport

3.2.2 Gender

A small majority of those surveyed (**66%**) were women, reflecting the still-significant role of women in household food provisioning, and perhaps also the reported willingness of women to “help out” with research (McRobbie, 1982). The predominance of women responding to the online survey links from market-related links (**75%**) suggests the significant engagement of women beyond the immediate shopping context, no doubt reflecting the persistently reported gender imbalance in displays of environmental concern (Gifford & Nilsson 2014).

3.2.3 Age

A strong majority of shoppers surveyed were middle aged to elderly. Most were aged 31-50 years, with strong representation from shoppers 50+. The oldest shopper surveyed was 88 years old. While observational data over eight weeks suggests that this is an accurate reflection of overall shoppers, it is important to bear in mind that this skewing towards older respondents also reflects older people’s typically greater availability of time to respond and the relative difficulty for parents with young children in tow to answer a survey.

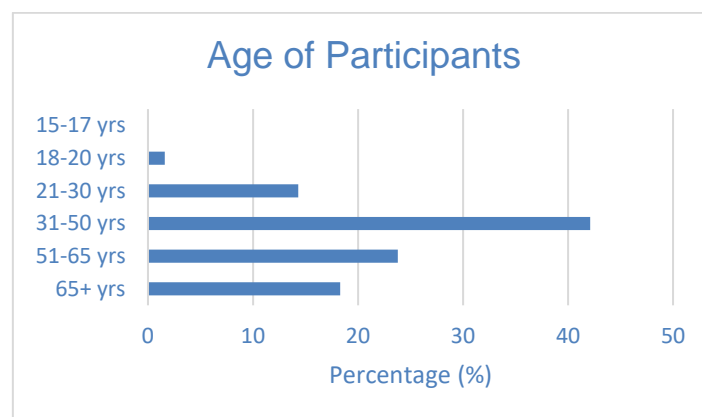


Fig. 4 Age of participants

3.2.4 Language background

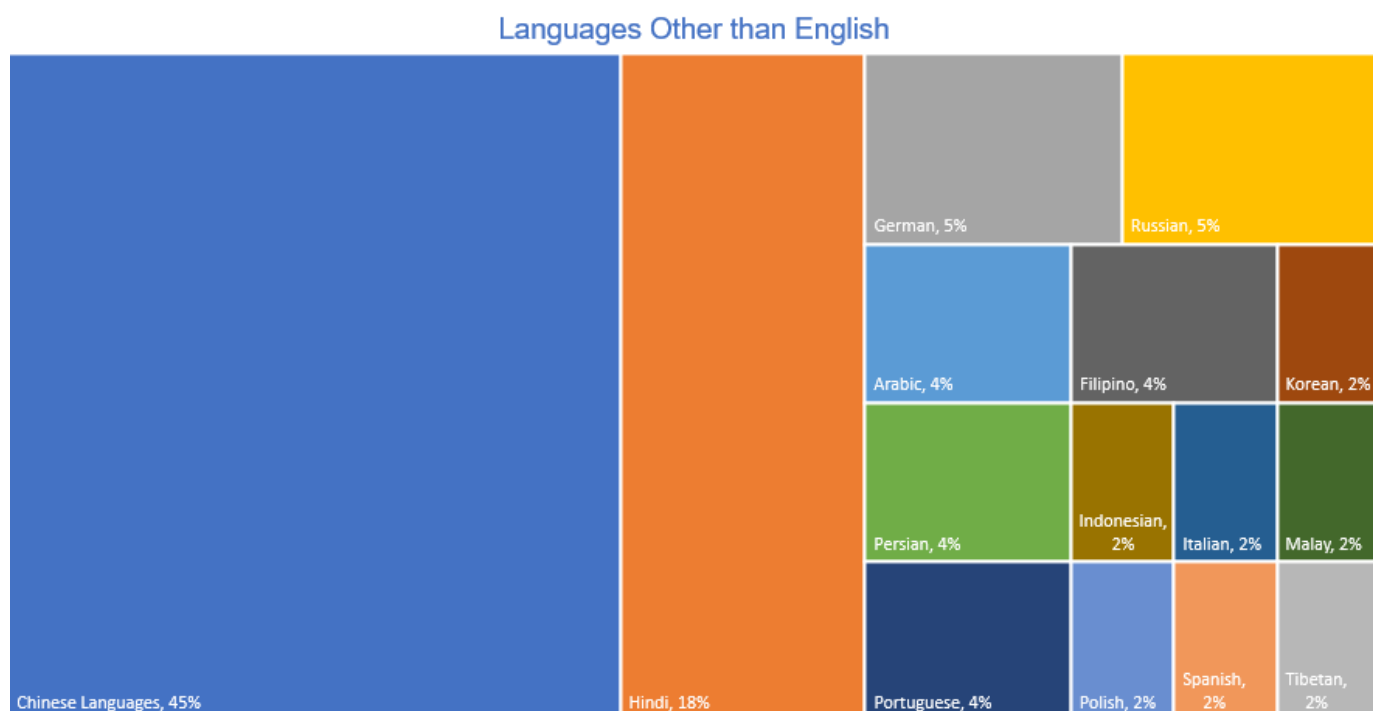


Fig. 5 Language profile of shoppers surveyed

3.3 Current practice at the Hornsby Farmers Markets

3.3.1 Plastics in use

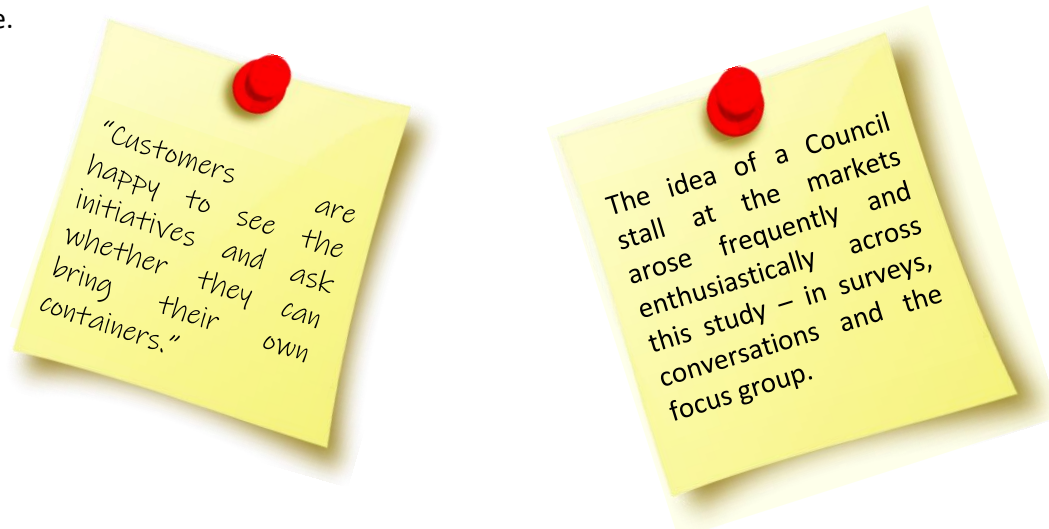
✓ In widespread use	Minimally involved	X Absent
Plastic carrier bags	Plastic straws & cups	Coffee cups: not sold by vendors but in use across the precinct
Produce bags	Plastic cutlery	Balloons
Fruit & vegetable netting	Plastic plates	
Vacuum packaging for meat & dairy	Plastic juice & water bottles	
Plastic packaging for moisture-sensitive food items		
Plastic tubs for dips, salads, sauces		
Plastic plant pots		

3.3.2 Non-plastic alternatives already in use by many vendors

Many stallholders are already well-advanced in plastic reduction efforts of their own volition – for reasons of principle and also because other markets/councils require it.



Observations and stallholder conversations indicated that some customers, especially at smaller or “niche” stalls, bring their own containers e.g. egg cartons, collapsible soup bowls or paper bags into which they tip biscuits. The regularity of the market event enables such habits to develop, as do the trusting relationships between stallholders and “regulars,” which make such transactions routine and pleasurable.



3.3.3 Alternative products already used by customers

The most commonly used item is reusable shopping bags (used by **97%** of shoppers surveyed). Refillable water bottles, coffee cups and small produce bags were also used by many. Many customers are “power users”: over 70% of surveyed customers bring 3 or more reusable items (bottles, bags, trolleys etc.). Conversations with shoppers indicate that the new habits required by changes in major supermarkets were having a flow-on effect; bringing a bag is rapidly becoming the new normal.

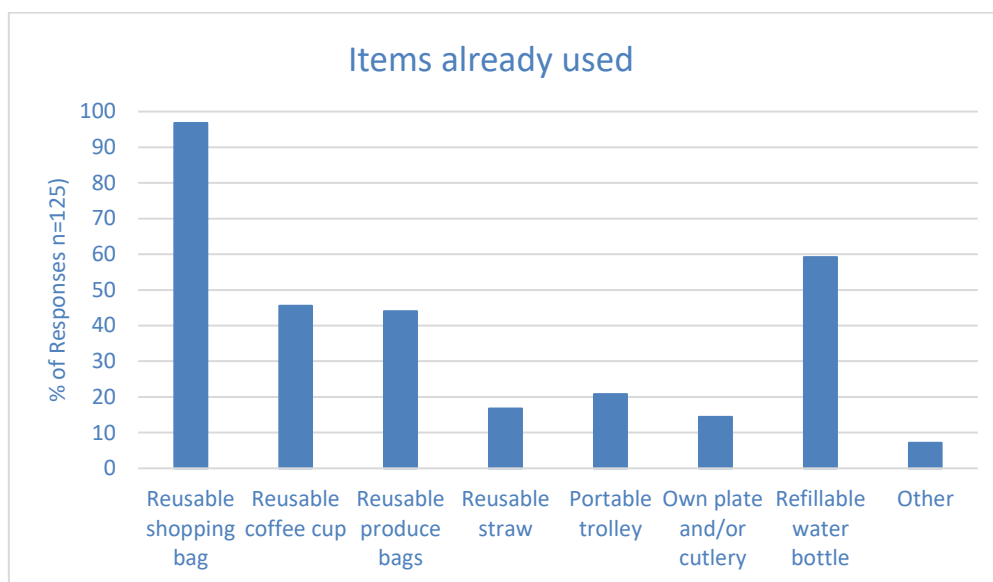


Fig. 6 Plastic alternatives already in use

3.3.4 Food waste

The study found that there is minimal food waste at the markets. Stallholders have honed their provisioning to a fine art, with wastage occurring mostly on bad weather days, when custom is low. Informal sharing networks of leftovers are well established (e.g. between vendors, or between vendors and regular customers, and sometimes with elderly or disadvantaged locals). Bread appears to be most at risk of wastage. However, the small quantities at stake and its unpredictable quantity make organised food recovery both unnecessary and unviable.

3.4 **Customer perspectives on plastic reduction**

- There is almost universal support (**92.9%**) for Council taking action to reduce plastic waste at the Market.
- *Sense of urgency*: customers were asked to rank the urgency of the need for action on a scale of 1-3. Gender had minimal impact, but a sense of urgency increased noticeably with age. Over 50s were significantly more concerned than younger people, with the highest level of urgency (**71.4%**) being expressed by the over 65s.
- There is strong support for **banning** as a tactic: **74% Pro ban; 25% anti ban**
 - *Ethnicity* (for which language spoken at home serves as a proxy in this survey) has no bearing on whether customers support a ban (72% second-language speakers compared to 75% English-only speakers).
 - *Age* had no influence, except for a marginal (5%) no-ban preference among the over 65s.
 - *Gender*: there was a slight preference for bans among women (**61%** of pro-ban respondents were women).

3.4.1 Four major themes emerged:

Commitment to stallholders:

In keeping with the research literature on farmers markets, many customers displayed an awareness of the predicaments for stallholders.

"Why aren't you targeting Coles and Woolworths?"

"Ban whichever items stallholders say they can manage easily"

"Don't do anything that jeopardises their business sustainability"

Evolving habits & systemic change:

There is a discernible flow-on effect from the bag bans at supermarkets. New habits are being cemented. Price signals are rarely used, but effective. One stall has begun charging for produce bags, and many customers decide they do not need them when they realise there is a charge.

Preparedness to bring alternatives:

There appears to be no correlation between the cumbersomeness of the items customers bring and their mode of transport to the markets. The item most commonly brought by people who drive to the markets was a reusable straw; conversely, the largest number of portable trolleys were brought not, as one might perhaps expect, by people who drive, but by people coming on foot or by public transport (62% as opposed to 15% by car).

Values-action gap:

Again in keeping with the literature, and despite evident changes in customer behavior, this perpetual gap was often evident. It was not uncommon for customers to assert their desire for a ban on plastic bags while standing next to their trolley full of these bags.

3.4.2 Obstacles to using alternatives

The most common reason for not using an alternative item was quite simple: forgetting (**40%** of in situ surveys; **67%** of online respondents). The second-highest reason for those surveyed in situ was not owning an alternative product, suggesting the importance of strategies facilitating the visibility and sale of alternatives. For example, although a reasonable proportion of those surveyed (**44%**) use reusable produce bags, many customers whom we engaged in conversation expressed surprise when shown these bags.



Fig. 7 Produce bags

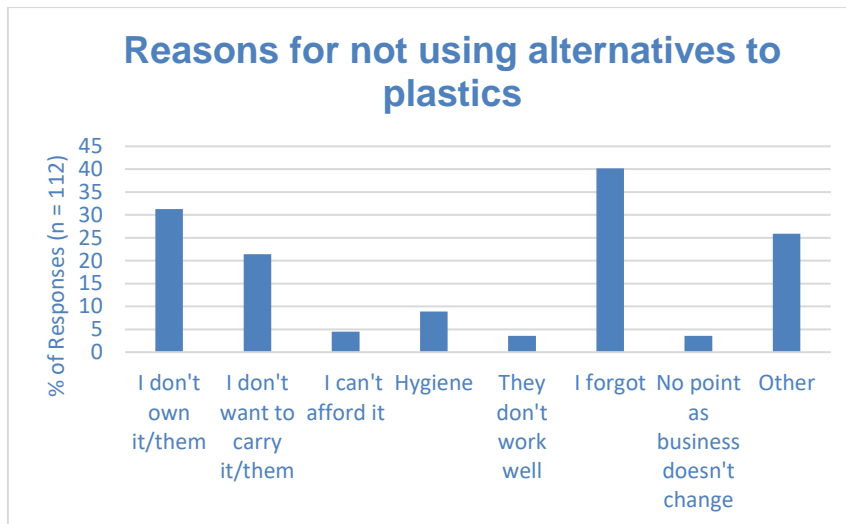
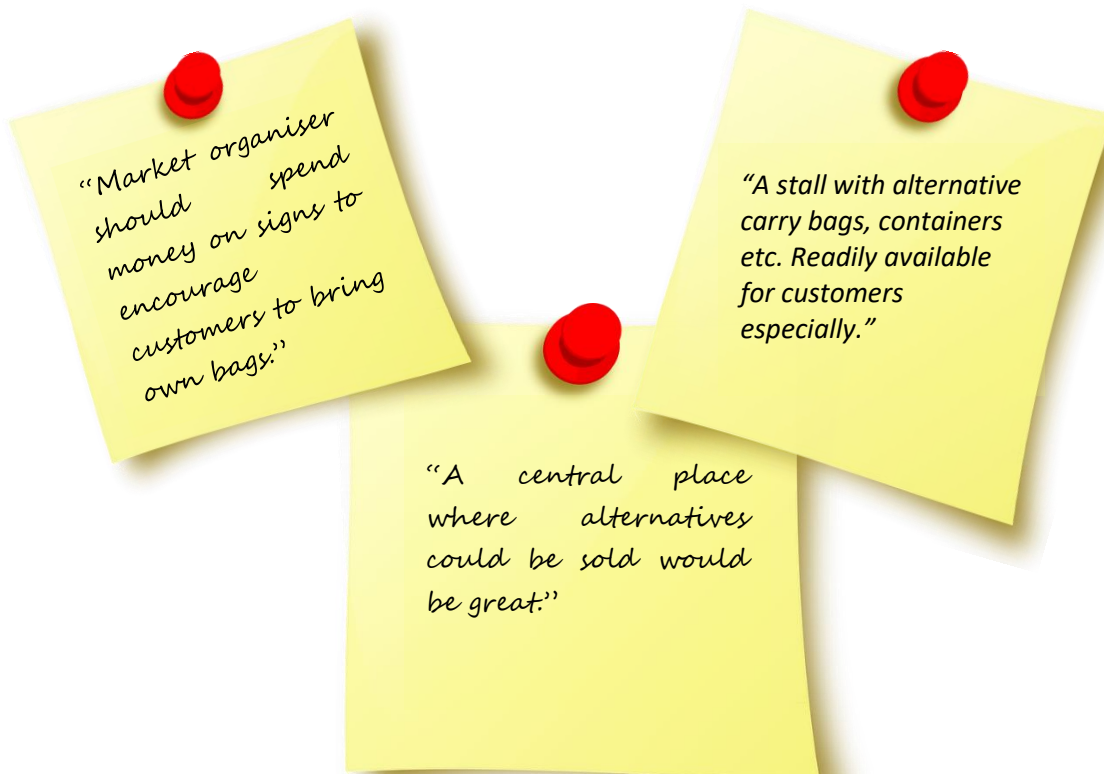


Fig. 8 Reasons for not using alternatives

3.5 Stallholder perspectives

Overall, stallholders' keenness for plastic reduction was a little less marked than that of customers (**78%** of written responses were in favour). There was also a slightly more muted sense of the urgency of the problem, with more mid-range responses than there were for customers. Preference for bans versus consumer education was about even.

Nonetheless, change is clearly in the air, and is being embraced. Stallholder views ranged from the passionate – those who were utterly committed to eliminating plastic as both a personal stance and a business principle – right through to a mild lack of interest from a few. There was no hostility. Many stallholders are in the process of using up existing plastic stock before replacing it with compostable alternatives. Many are actively trialing different replacement options to see which ones work well, and (for some vendors) which ones suit the aesthetic dimensions of their brand. A number of stallholders wanted support from the Council and the market operators:



3.6 *Perspectives from two community group representatives*

It is fair to say that food and plastic waste have not particularly been on the radar of the community groups organising and running the two events canvassed, given that their labour is voluntary and their focus is on fundraising. However, both representatives indicated a willingness to engage in conversation about these issues and were open to future possibilities.

Event 1: An annual fundraising event on Council land, run by a community group and attracting up to 3500 patrons. The majority of the food on sale (e.g. a BBQ, hamburgers and Chinese food) is provided by the community group, with a local café providing takeaway hot drinks and salads. The group is unable to determine how much food waste is produced. Council supplies bins for the event; no recycling is available at the event.



Main items in waste stream: coffee cups and lids; aluminium cans in large quantities; plastic cutlery and salad containers; paper plates. Currently, all of this is going to landfill.

Core problems:



If Council were to provide recycling bins, who would sort the rubbish (since patrons cannot be relied on to use the bins correctly) and how would cross-contamination be avoided?



The event is a fundraiser and most of the food is produced by the community group. Hence, the feasibility of reduction attempts depends on issues such as the provision of labour power, the cost of alternative products and the potential reduction in income owing to the cost of these products.

Event 2: An annual entertainment event in the north of the Shire whose principal function for the community group organising it is as a fundraiser. This event hosts stalls of many kinds, including carnival rides, food stalls, community group stalls, and stalls selling a range of items (books, toys, showbags, arts and crafts). The local pub sells drinks that can be taken out into the precinct.

Currently, each stallholder is responsible for their own waste and the organising committee makes no formal requirement of them about waste reduction or disposal. The stall for which the community organisation is directly responsible is a sausage sizzle; no single-use plastics are involved and systems are already in place to prevent wastage of leftover food.

At the 2019 event, the impact of system-wide change was evident. Many of the food vendors also attend the Hornsby markets, and single-use plastics were greatly reduced from previous years. This illustrates the cumulative and cross-fertilising impact of change and the normalisation of new habits.



The event is a community fun day, and in keeping with the feel-good nature of the day, the organising group do not wish to be put in the position of being a “policeman.” Thus, any stipulations and restrictions need to be clearly signalled as coming from Council policy and supported by informational resources for prospective stallholders.



Beverages provided by the local pub for consumption across the event precinct are required to be in plastic containers for safety reasons. This suggests the need for a co-ordinated collection/recycling response involving the pub.



No recycling or composting was available at this event, and so despite the reduction in plastics, the total waste produced was significant.

Opportunities:



The Return & Earn machine now installed in the event precinct presents an opportunity for an organised (and/or informal) system of recycling for some items.



The active nature of local anti-waste groups (e.g. War on Waste groups; Boomerang Alliance) presents an opportunity. It is worth investigating whether such groups could potentially hold their own stalls and/or assist with waste reduction strategies.



The representative was open to the possibility that over time the event could use sustainability as a point of focus/difference, by specifically inviting particular kinds of stalls answering to that theme.

3.7 Perspectives from focus group discussants

Six overarching themes emerged from the focus group discussion:



- ✓ Urgency of the plastics problem
- ✓ Need for Council to step up and take stronger action
- ✓ Need for more refined, frequent and accessible education
- ✓ Need to support events and groups with information and resources
- ✓ Numerous lost opportunities for waste reduction, education and resource recovery/community fundraising
- ✓ It has to be an all-of-community responsibility

3.7.1 Suggestions for Hornsby Farmers Markets

Products & alternatives:

💡 Charge for produce bags (uniformly across all stallholders) to help drive behaviour change and/or mandate paper bags. The use at other retail outlets of strong, effective paper bags for produce was noted, as were the likely increased costs to stallholders.

💡 Giveaways/branded alternatives: The visibility of non-plastic alternatives (keep cups, produce bags, water bottles etc) was perceived as an important part of the change process, to inform consumers about products they may not know about; to foreground and normalise their use; to make their purchase easy; and potentially to assist with costs. Respondents recalled similar branding “blitzes” during other campaigns, where Council-branded shopping bags, refillable water bottles, low-plastic pens and so on were given away. This suggestion that Council produce such resources at the launch of a new policy/transition period also arose in stallholder and customer surveys.

💡 Bag sharing/swapping: Investigate the feasibility of a Boomerang Alliance style box (lidded and locked) for use in the Market precinct. One suggestion was that Westfield could be invited to display community feeling by “sponsoring” the box (i.e. storing it, wheeling it out, locking and unlocking it). Focus group members displayed detailed knowledge about design specifics (e.g. the

need for lockable casters), suggesting the expertise already available in community groups such as the Boomerang Alliance, Men's Sheds etc.

💡 Focus group members suggested a Council stall at the markets on a regular basis. This stall could act as a conduit for information about waste (especially alternative products and correct recycling procedure) but could be extended to fulfil other communication functions (cf. the perception that there is an information gap). The question of the potential difficulty of staffing this stall was raised, to which respondents replied that this could correctly be seen as falling across a number of core council areas – education, waste management, sustainability, customer service – and thus staff load and associated costs could potentially be spread across different Council areas. The expense of a stall was noted as a hindrance.

Resources & communications:

💡 Council needs to provide information resources to support customers and stallholders e.g. details of alternative products; lists of suppliers.

💡 The need for an information blitz during the transition period and at regular intervals thereafter was noted.

💡 Enlist the help of volunteer groups (e.g. Boomerang Alliance; War on Waste community groups, Men's Sheds) during the launch/transition phase.

💡 Increase the visibility of recycling at the Markets: currently it is hard to find recycling bins in the Mall on market day.

💡 Signage: there is currently no signage at the markets encouraging waste reduction/single-use plastics alternatives.

💬 “I think that there's also a steep learning curve that the customers have to go on. It's not just the suppliers.”

💬 “Given that local newspapers have all but disappeared, a stall would be a wonderful vehicle for all-council communication.”

❓ Can responsibility for stall logistics be spread over several different divisions of Council and can stall expense be negotiated with market operator?

3.7.2 Suggestions for other community events

💡 Council involvement and presence: focus group members felt that Council needs to have a visible presence at large community events and to play a key role in making recycling at such events practical e.g. by staffing a designated waste area. “Council just *has* to be involved. There’s no question of stepping back.” “Man up, Hornsby Council! I’m sorry, man up. We pay a lot of rates! This is good promotion for the area.” They recognised that bureaucratic complexities make this hard for volunteer groups organising events: “You need to have a risk assessment; you need to have somebody there in hi vis; somebody has to have done the training...” This strengthens the case for Council involvement.

💡 Respondents also believed that Council needs to start setting parameters for event organisers as part of stipulations for hosting events on Council land. One respondent noted that many music festivals have requirements for every item to be compostable or recyclable.

💡 Deposit system at large events: some participants noted the existence of deposit schemes at large events like festivals, where aluminium can recycling is promoted by systems like a \$1 deposit, redeemable when the can is brought to the recycling area.

💡 Need to catch imagination with specific stories and specific goals for each event, not just general encouragement. i.e. all the money raised from can recycling at this event is going to a specific local purpose (e.g. medical funds for a person or family; a local charity etc): “Every single bottle and can from tonight’s function will go towards this fundraiser.” This was believed to be a more potent and immediate motivator than generalised exhortations to “do the right thing.” The example was given of an NGO ([Envision](#)) that collects plastic bottle tops and uses them as the raw material to 3D print replacement hands for child amputees: “You give it a purpose; you give it an idea.” The suggestion was to give the idea of a specific cause linked to waste recovery to the volunteer organisations running an event and “let them run with it.”

3.7.3 General observations: Education and communication

🗨️ The need for education: Focus group members expressed a strongly held view that more (and better) education was required. There was consensus that education needs to be very focused:

1) on alternative products (their nature and availability)

2) on recycling:

- reducing cynicism given the dominant perception that it all just goes to landfill these days anyway
- focus on particular products (the view was that there is limited public awareness of soft plastics recycling); and
- specialised information: it is hard even for recycling devotees to know what can and can’t be recycled.

🗨️ Council communications: There was a shared perception that information coming from Council is less frequent and visible than in the past. It was noted that Council communications need to be in a range of formats, not just digital and that communication/education needs to be regular.

🗨️ It’s an all-of-community transition: “I think it’s a willingness. We’ve all got to be willing to be part of that [sustainability] trade and the idea would be to sell that concept.”

🗨️ There was a perception by several members that Hornsby Shire Council was backing away a little from earlier commitments or processes (e.g. by limiting soft plastic drop-off locations to the Sefton Rd depot) or that once-prominent environmental campaigns have “fallen in a heap” over recent years.

💬 “You can’t just have a quickfire campaign.”

“You've got to start with education on both sides. It's a learning curve for the council too. That's why you're doing this thing; it's a learning curve for them as well.”

Though the participant numbers were small, the ideas suggested and the views held resonated strongly with those in customer surveys and the earlier community engagement consultation study commissioned by Council. While the knowledge, passion and expertise of this small group cannot be understood to be representative of all sectors of the wider Shire, it nonetheless points to the expertise and interest able to be tapped in the community on these matters.

4 Discussion: Challenges, considerations and constraints

4.1 *Stallholder wellbeing*

Stallholder perspectives are very important; any changes should take care not to undermine the function of farmers markets as “small business incubators and safety nets” (Cameron 2007).

4.2 *Product switching*

One of the problems with piecemeal bans is that consumers or vendors simply switch products, often with no net environmental benefit and occasionally worsening the status quo, e.g. bans on “plastic water” alone mean consumers switch to soft drinks, still in plastic bottles. The risk of a ban on produce bags at the Farmers Markets is that vendors will increase the amount of plastic netting being used.



Fig. 9 Produce netting

4.3 *The precinct problem*

Requiring non-plastics at stand-alone events is easier when the site does not abut an existing retail strip. For example, one of the main plastic-intensive items on sale at a recent community event in the Shire was takeaway coffee. While banning disposable coffee cups and lids at this event might seem a logical step, a stallholder could rightly complain that they are being unfairly penalised when eventgoers can walk 200m and purchase takeaway coffee. Thus, in some cases an all-of-precinct response is required, which in turn requires a collaborative approach from local businesses.

A slightly different version of the precinct problem exists at Hornsby Markets. Researcher observations confirm that having a takeaway coffee was an important part of the market experience for many shoppers, even though coffee is not sold by market vendors. The experience of a “sustainable” market would be enhanced if neighbouring businesses could be encouraged to promote keep cups and use non-plastic alternatives.

4.4 *Overall impacts on the waste stream*

It is important to recognise that swapping out plastic for cardboard at community events, while it reduces plastic in the waste stream, does not decrease the total waste produced. Overall gains will be restricted until such time as mobile and permanent public food waste/compostables collection systems are brought on board across the Shire.

Such systems are a taken-for-granted part of the urban landscape in many large centres (e.g. Vancouver, Canada; Bellingham, Washington State).



Fig. 10 Bin signage in public park, Bellingham, WA.

4.5 Policy evaluation

It is important to bear in mind the need for “robust evaluation measures,” given the current “poor evidence base” around the world for most behaviour change initiatives (Southerton et al., 2011: 4).

5 Recommendations

5.1 General recommendations for waste reduction in public spaces/events

RECOMMENDATIONS	1	Emphasise “upstream” interventions: replacement and reduction rather than recycling.
	2	Focus on systemic solutions not individual behaviour change.
	3	Implement strong strategies like comprehensive bans but recognise differences in context, scale and capacity and allow for exemptions where appropriate.
	4	Act as a conduit for information about replacement products and reduction strategies.
	5	Enlist the support of pro-environmental community and volunteer groups, recognising their passion and expertise.
	6	Incorporate specific waste-related requirements and stipulations for Council-supported public events with patronage over a particular threshold, and support community groups in implementing these via the provision of product information and where possible via the provision of resources (e.g. recycling bins and/or staff to assist).
	7	Implement robust evaluation measures and amend policy where required over time.

5.2 Recommendations on education and support

RECOMMENDATIONS	8	Avoid fear-based and general motivational education.
	9	Provide focused education: <ol style="list-style-type: none"> 1) on alternative products and vendors 2) on soft plastic recycling 3) on differences between reusable, “biodegradable” and “compostable” plastic bags 4) on the current state of play of recycling pathways and destinations
	10	Support community awareness and uptake of replacement products such as keep cups, produce bags, metal straws, and collapsible bowls. Mechanisms might include: <ol style="list-style-type: none"> 1) information provision: e.g. an occasional market stall; a website; a directory of suppliers; a supplement in local newspapers on Clean Up Australia Day, Australia Day or Plastic-Free July 2) giveaways 3) support for pop-up stalls of retailers of alternative products 4) using large-scale events as opportunities to promote targeted information 5) encouraging community groups, schools, kindergartens, scouts etc to use plastic-replacement products (e.g. produce bags, keep cups; collapsible bowls, refillable water bottles) in fundraising ventures instead of biscuits or chocolates
	11	Enlist the support of pro-environmental community and volunteer groups, recognising their passion and expertise.

5.3 Waste reduction at the Hornsby Farmers Markets

RECOMMENDATIONS	12	Recognise the almost universal customer support (92.9%) for Council taking strong action on plastic use at the Markets.
	13	Recognise the significant though slightly more muted support from market stallholders, and their request for support in this transition.
	14	Do not invest time and energy in a food waste reduction/food recovery system until such time as a public composting system is in place across the Shire.
	Immediate term:	
	15	Eliminate large single-use plastic bags, plastic straws, cutlery, cups and plates via a phased-in ban.
	16	Liaise with market operators and vendors about setting a consistent price signal for smaller produce bags to encourage consumer uptake of alternatives, with a view to a ban in the mid-term.
	17	Liaise with market operators and vendors about how best to ensure that small plastic produce bags do not simply get replaced by plastic netting.
	18	Investigate the feasibility of a bag share depot (as per the system at Northside Produce Markets) or a Boomerang Bags-style locked box of reusable bags.
	Mid-term:	
	19	Investigate the feasibility of a regular Council stall at the markets to act as a visual reminder about Council’s reduction efforts; a conduit for practical information about waste reduction; a promotional vehicle for a broad range of Council initiatives; and a two-way conduit for information flows.
	20	Investigate the feasibility of occasional or regular stalls for encouraging vendors in the nearby precinct to sell products like keep cups, metal straws, shopping trolleys and refillable bottles, whether at the markets or as a Westfield pop-up.
	Longer term:	
	21	Work towards a broader precinct-wide approach e.g. by encouraging a keep cup strategy with the cafés whose premises open onto the markets.

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7 Appendix

7.1 Actions taken by other councils

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
Councils – Key examples					
<p>Brisbane City Council (Announced May 2018)</p>	<p>Single-use plastics ban for all council-run operations and events.</p> <ul style="list-style-type: none"> Vendors at council-run events banned from supplying plastic straws, helium balloons, and single-use bottles (single-use plastic bags banned in Qld, July 2018). Single-use plastic wrap at polling booths is also banned. <p>Ban for council-sponsored events</p> <ul style="list-style-type: none"> Part of the sponsorship criteria for council-sponsored events includes demonstrating a commitment to not using helium 	<p>Education/guidance:</p> <ul style="list-style-type: none"> Council provides comprehensive Event Sustainability Guidelines that guidance to event organisers, including guidance to give vendors about avoiding single-use plastic and choosing alternative products. For example, the guidelines suggest using pre-loved materials such as wooden signs, opting for recyclable materials, and providing drinking fountains or water stations for refilling water bottles. <p>Sponsorship guidelines:</p> <ul style="list-style-type: none"> Businesses and events must demonstrate a commitment to keeping Brisbane clean, green and sustainable by not using helium balloons, single-use straws and single-use drink bottles in order to receive Council sponsorship. 	<p>Council has not reported on the obstacles/successes of the program.</p>		<p>Brisbane City Council announces ban on plastic straws, balloons and single-use bottles</p> <p>Brisbane City Council Sponsorship Guidelines</p> <p>Brisbane City Council commits to no plastic wrap at polling booths</p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	balloons, single-use straws and single-use drink bottles. <ul style="list-style-type: none"> Patrons can still bring their own. 				
Blacktown City Council (July 2018)	<p>Council's Sustainable Events Management policy (2011) covers Council-owned venues as well as civic events, community and cultural events conducted either by Council or by community organisations with Council support, and major events.</p> <p>The Council is also a participant of the Western Sydney Regional Waste Strategy, developed by nine participating councils and funded by the NSW EPA. One of the aims of this strategy for is to develop a partnership project with Sydney Water before 2020 to install bottle refill stations for reduction</p>	<p>This policy includes the following strategies:</p> <ul style="list-style-type: none"> Where practical, favour produce that has minimal packaging. Where practical, use crockery and metal cutlery, and where these are not practical, use biodegradable materials or materials that can be recycled in Council's current recycling systems. Favour the use of jugs of tap or filtered water and the reuse of 'Blacktown bottles' over the purchase of bottled water. Select promotional and educational give-away items that are useful and sustainable. 	<p>Disincentives for stallholders:</p> <ul style="list-style-type: none"> It has been reported that Council insists on biodegradable packaging for food at its events at no cost to Council and stallholders bear the costs of these stipulations. 	<p>Council has not reported on the successes of the Sustainable Events Management policy.</p>	<p>Minutes of the Environment Advisory Committee meeting – 7 March 2018 (confirmed at 13 June meeting)</p> <p>Sustainable Events Management Policy (Policy P000494.1)</p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	of single-use plastic bottles, where project is majority-funded by Sydney Water.				
Canterbury-Bankstown Council (Announced July 2018)	Ban of single-use plastic straws and cups for all council-run facilities and events. Phase out of single-use plastics for Council operations and Council-sponsored events. <ul style="list-style-type: none"> As part of its 2018/19 Operational Plan Council plans to phase out of any single-use plastics such as plastic bottles and plastic bags in all Council operations and Council sponsored events. 	Education program <ul style="list-style-type: none"> Education program for local businesses. 	Council has not reported on the obstacles/successes of the program.		Cbcity Leads The Fight Against Plastic
Darebin Council, Victoria (February 2018)	Single-use plastic ban at events run by Council and events held on Council land, in Council buildings, Council venues, or on	Strategies include: <ul style="list-style-type: none"> Single-use plastic bags are not to be used, sold or distributed for transportation or promotional purposes Single-use plastic plates, bowls, cups, straws, cutlery and take away food containers are not to be used, sold or distributed. 	Impacts on industry <ul style="list-style-type: none"> It has been reported that the ban will hurt family businesses and the ban has prompted criticism from 	Darebin City Council has reported that feedback from the community had been predominantly positive.	Sustainability Victoria: Balloons

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	<p>roads managed by Council</p> <ul style="list-style-type: none"> Includes plastic bags, cups, bowls, plates, cutlery, take away containers, bottled water, cling wrap, straws, balloons, and disposable paper (coffee) cups with plastic linings and/or lids. 	<ul style="list-style-type: none"> Bottled water is not to be provided, sold or distributed by Council. Alternative, free access to water must be provided. Single-use disposable cups and lids are not to be used, sold or distributed by Council All avoidable plastic packaging, including cling wrap, plastic bags or similar must not be used in the purchase, sale, distribution and transport of food or goods. Balloons are not to be used, sold or distributed; Event materials are to be reused where possible (including event signage and promotional banners and flags). The event site or venue must be left litter free and returned to pre-event conditions. Event organisers must play a key role in educating and guiding their event staff and audience on single-use plastic free practices. This includes considering whether single-use plastic items are needed in the first instance, providing useful information, and promoting reusable alternatives. Sporting clubs, food and other vendors at festivals and others participating in Council events on/in Council land/buildings are permitted to provide, sell or distribute single-use bottled water and disposable cups. However, they must promote and consider using and supplying/selling reusable options (e.g. providing jugs and reusable glasses for patrons' water use, promote/sell/supply refillable drinking bottles or reusable cups etc) and display promotional materials on reusable options. Exemptions to this policy may be made for health and safety reasons or where there is no other practical alternative product or distribution method available. <p>Alternative products offered by Council</p> <ul style="list-style-type: none"> The Council has offered portable reusable kits with lightweight cups, plates and cutlery available at smaller 	<p>Victoria's balloon industry, which argued latex balloons should not be part of a policy. on the use of disposable plastic.</p> <ul style="list-style-type: none"> Balloon Artists and Suppliers Association president Ray Stewart said the trend of local councils banning balloon releases and balloons altogether was putting thousands of jobs at risk. 		<p><u>Alternative products to balloons</u></p> <p><u>Single-use plastics banned at Darebin City Council-run events</u></p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
		<p>events, and attendees of other events where single-use items are banned are encouraged to bring reusable bottles and coffee cups.</p> <p>Incentives:</p> <ul style="list-style-type: none"> • Sporting clubs, food and other vendors at festivals and others participating in Council events on/in Council land/buildings must provide a discount to those choosing reusable cups (e.g. bringing their own). <p>Compliance actions</p> <ul style="list-style-type: none"> • If there is poor adherence to this policy, officers may recommend that these events not be supported or approved by Council in the future. • Events on Council managed land will need to commit to comply with the policy before any Council sponsorship for that event is approved. <p>Education:</p> <ul style="list-style-type: none"> • Since the implementation of the policy, Darebin City Council has developed education resources (including a guide for internal event planners), replacing disposable items with reusable items, engaging with external suppliers and updating terms and conditions for venue and facility hire. 			
<p>Georges River Council, NSW</p>	<p>Single-use plastics ban for all council-run operations, council-owned venues, and events.</p> <ul style="list-style-type: none"> • Stallholders and sponsors must agree to terms and conditions 	<p>Alternative products</p> <ul style="list-style-type: none"> • Paper straws <p>Education</p> <ul style="list-style-type: none"> • Education program to assist stallholders to transition to single-use plastics. 	<p>Cost</p> <ul style="list-style-type: none"> • Council identified that it may experience a reduction of bookings of Council-owned venues for private functions due to the ban as potential customers may see the 		<p>Ban on single-use plastic bags and drinking straws could cost Georges River Council</p> <p>Ban on balloons and single-use plastic bags and</p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	<p>that prevent single-use plastics bags and straws, and balloons being used or distributed at council events.</p> <ul style="list-style-type: none"> Ban does not extend to private functions held on council premises <p>Events, Community Centres and Halls:</p> <ul style="list-style-type: none"> Single-use plastic bags and straws removed from stores/stalls. 		<p>ban as onerous and having increased cost implications</p> <p>Licensing compliance</p> <ul style="list-style-type: none"> Council identified that there will be implications for catering contractors at Jubilee Stadium as plastic cups are currently required for licensing compliance within the seating bowl in public bars. <p>Restriction in sale of products at Council venues</p> <ul style="list-style-type: none"> Bottled soft drinks are currently packaged in single-use plastics. 		<p>straws by Georges River Council</p> <p>Single Use Plastics On The Way Out At Georges River Council</p> <p>Item: COM053-18 Ban on Single-use Plastic Bags and Drinking Straws from Council Events</p>
<p>Inner West Council (Announced 11 September 2018, commenced 1 January 2019)</p>	<p>Single-use plastics ban for directly controlled Council operations and Council sponsored events, major festivals, and major activities.</p> <ul style="list-style-type: none"> Includes plastic bags, single use plastic drink bottles, balloons, 	<p>Council's Event in Parks policy and guidelines for major events in the local government area include the following aims:</p> <ul style="list-style-type: none"> Reduce the use of single-use plastics such as straws, plastic bags, plastic water bottles. This may include strategies such as encouraging patrons to bring their own re-usable water bottles, providing water bubblers, encouraging the use of paper (not plastic) bags, banning plastic straws and so on. Discourage the use of Balloons, plastic straws, glitter, party poppers, confetti and Colour Runs are not permitted within parks at any time. 	<p>Disincentives for stallholders/sponsors:</p> <ul style="list-style-type: none"> It has been reported that previous initiatives by the former Leichhardt Council to ban plastic straws found that alternatives to plastic straws were reported by stallholders as 	<ul style="list-style-type: none"> It has been reported that customers have embraced paper, reusable or non-provision of bags. Council reported that there are no expected impacts on staff time/costs as a ban on single-use plastics is already in 	<p>Council recommits to eliminating single use plastics</p> <p>Council Meeting held on 11 September 2018 - Item 21 Notice of Motion: Single Use</p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	<p>plastic straws, plates and cutlery.</p> <ul style="list-style-type: none"> Event permissions and booking forms stipulate that single-use plastics, single use plastic drink bottles, balloons, plastic straws, plates and cutlery must not be provided Council's Procurement Policy gives preference to sustainable products and services. 	<ul style="list-style-type: none"> Event Organisers must have plans/incentives to minimise single use packaging including coffee cups, plates and cutlery. Identify opportunities to reduce generation of waste. For example, encourage reusable alternatives such as reusable coffee cups and reusable water bottles. Consider using compostable cutlery, containers and bags. If these materials are used, they must be collected separately to other wastes, and a suitable commercial composting facility must be used to compost the material. If compostable materials are not feasible, then all materials used by the Event Organisers and associated stalls/vendors must be recyclable. Council encourages reduction of plastic water bottles, and communications for events should encourage patrons to bring their own water re-usable bottles. Event organisers must have plans for ensuring that stalls/vendors/sponsors do not distribute items that are not sustainable and ensure that back-of-house issues are well managed by vendors (e.g. packaging). With exceptions for childcare or seniors' events where excessive temperatures or circumstances may require availability of single-use plastic drink bottles and use of plastic straws by people with a disability who may require them for drinking. 	<p>expensive and were thus only provided to customers upon request.</p> <ul style="list-style-type: none"> In September 2018, Council noted that a ban on use of all single use plastics may have an impact on Council's ability to attract a wide range of food and beverage purveyors. Council noted that banning balloons may limit Council's ability to attract sponsors for events. 	<p>place across the major community event program and is included in other events management policies including the large events in parks by external parties.</p>	<p>Plastics Reduction</p> <p>Events in Parks Guidelines</p>
<p>Northern Beaches Council, NSW (Adopted August 2017)</p>	<p>Single-use plastic ban</p> <ul style="list-style-type: none"> Council's <i>Waste Minimisation at Functions Policy (adopted August 2017)</i> bans the distribution of the use of single use 	<p>Event organisers are required to promote and practice waste avoidance principles by:</p> <ul style="list-style-type: none"> Minimising the amount of waste generated o prohibiting the sale and/or distribution of single-use plastic products and single use sachets, polystyrene, plastic bags, plastic straws and/or balloons o prohibiting the sale/and or distribution of bottled water. Alternative sources of water must be considered. 	<p>Council did not report on the obstacles of the campaign.</p>	<ul style="list-style-type: none"> Council reported that the portable water fountains have diverted nearly 13,000 600ml plastic water bottles since January 2018 at local events where bottled water is now 	<p>Council achievements following the introduction of the Single Use Plastics Policy</p> <p>Council urges local business to</p>

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	<p>plastics including water bottles, plastic plates, balloons and straws at public events.</p> <ul style="list-style-type: none"> This policy applies to any individual or organisation applying to hold an event on Council land or Council facilities within the Northern Beaches local government area, and includes events produced by Council. This policy also requires all event organisers to promote and practice waste avoidance principles and increase resource recovery at all public events held on Council property. All public events and functions held on Council property and public open 	<ul style="list-style-type: none"> Maximising recycling o promoting and engaging in sustainable procurement practices o minimising the environmental impact of any products, supplies and promotional materials used at the event. <p>Alternative products</p> <ul style="list-style-type: none"> Council installed 25 permanent drinking water fountains and purchased 14 portable water fountains for use at Council and community events. At the permanent sites, pavement artworks have been created to reinforce Council’s single use plastic reduction messaging. <p>Targeted behaviour:</p> <ul style="list-style-type: none"> Council designed a behaviour change campaign titled “Swap This for That” to support the delivery of the <i>Single Use Plastics Policy</i> focusing on reducing the use of the big four – plastic water bottles, bags straws and coffee cups. This campaign has also featured on social media, print and broadcast media, street art, sand sculpting, school education, banners and flags and encouraging the community to sign a pledge. <p>Education/leadership:</p> <ul style="list-style-type: none"> Council contacted 1176 local food and beverage businesses in the area encouraging them to transition away from the big four (drinking straws, takeaway coffee cups, plastic water bottles, plastic shopping bags) Council’s ‘Swap for Good’ program provides various support measures for local businesses including one-on-one guidance, sustainable procurement guides, online networking hubs and webinars as well as a list of suppliers of sustainable materials. For larger events, Councils brief all stallholders on council policy and inspect their packaging prior to the event. 		<p>prohibited to be sold or given out. Water metre readings of nine of the permanent water fountains show 19,355 600ml water bottles have been diverted from landfill over the past 12 months.</p> <ul style="list-style-type: none"> Council reported that an extremely successful element of the “Swap This for That” campaign was the production of a video which was viewed 64,000 times. 	<p>abandon single-use plastic</p> <p>Waste Minimisation for Functions and Events Approved by Council</p>

Context	Strategy type	Strategy techniques	Obstacles	Successes	Further information
	<p>space must adhere to the Event Waste Management Guidelines.</p>	<ul style="list-style-type: none"> Council's 'Swap This for That Waste Free Party Guide' explains how to use choose sustainable products instead of single use plastics. Council implemented a School Education Program involving Waste Audits, Little Bug Plays, Waste and Recycling Talks Workshops at Kimbriki and involvement in micro plastic research showing their effect on the marine environment. <p>Submission to State government:</p> <ul style="list-style-type: none"> Council wrote to the NSW Premier to petition the government to ban plastic bags and straws in NSW. 			
<p>Randwick Council, NSW (Commenced 1 July 2018)</p>	<p>Single-use plastics ban for all council-run operations and events.</p> <p>Single-use plastics such as plastic bags, single-use drink bottles, helium balloons, plastic straws, plates, and cutlery, and drinking straws will be banned from all Randwick City Council operations and events.</p> <p>Single-use plastics ban for all council-sponsored events.</p> <p>Council-supported events, festivals and major activities would also be required from 1</p>	<p>Alternative products</p> <ul style="list-style-type: none"> Alternative products sourced by Council's procurement team for council-run operations and events. Council examined potential solutions to single-use plastics waste, including permanent water stations targeting Town Centres and along the coastal walkway. A stocktake was carried out of Council meeting rooms to remove existing stocks of single-use plastics items and ensure alternative items were in place for meetings with internal staff or external visitors. Exemptions would apply for emergency situations where single-use bottled water may be required because of excessive temperatures. <p>Incentive programs</p> <ul style="list-style-type: none"> On 28 May 2019, Council committed to investigate possible incentive programs to promote the use of reusable cups and other items by customers and employees of local businesses and organisations, in order to reduce the use of Single Use Plastics. <p>Education program</p>	<p>Financial cost:</p> <ul style="list-style-type: none"> The key financial implication from the proposed strategies is the purchase and supply of two Council branded portable water stations for use at Council's internal and relevant external events at approximately \$6,600 each, payable from Council's environmental levy program (the cost benefit of Council having its own two portable systems would be realized within 12 to 24 months depending on the 	<p>On 28 May 2019 an implementation update was provided at a Council meeting:</p> <ul style="list-style-type: none"> This update noted that there has been a very successful and smooth implementation of Council's single-use plastics resolution incorporating practical on-ground implementation actions and broader educational and communications programs both within and external to Council. The update also noted that Council's 	<p>Randwick Council bans single-use plastics</p> <p>Implementation update on Council's single use plastics ban</p>

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	<p>January 2019 to not use single-use plastics.</p>	<ul style="list-style-type: none"> • Council worked with the Ritz cinema and community organisations to coordinate two showings of Blue – the movie, focusing on plastics in our oceans. • On 28 May 2019, Council committed to investigate the implementation of a waste education program for Randwick LGA businesses and community groups to assist in the reduction of the use of Single Use Plastics such as straws, balloons, cups and bags. • Council’s Events team, working with Sustainability, Strategic Waste and Procurement staff, established a checklist for external events providers to maximise their understanding of the single-use plastics resolution on external events supported by Council. <p>Submission to State government</p> <p>Council to continue to write to the NSW government and local MPs to request that single-use plastic bags, straws and cups be banned in NSW.</p>	<p>number of events they are utilised).</p>	<p>Procurement team were quick to respond to the resolution by ensuring replacement items were identified and stocks of relevant items were changed over to more durable or recyclable items and alternative supplies were available particularly for catering or event purposes.</p> <ul style="list-style-type: none"> • Council reported that community feedback and responses were in the main very positive and following some representation from various community members, a new supply of biodegradable waste bags was installed in all Council off-leash parks for dogs. • Council reported that the community education campaign 	

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				<p>also highlighted the availability of drop-off and recovery facilities for thin plastics and plastic bags at Council's Perry Street Recycling Centre, which has since seen a lift in these types of items dropped off at Perry Street for recovery and re-use.</p> <ul style="list-style-type: none"> • Council reported that increased provision of community water 'bubblers' in the public domain provided immediate reductions in drink bottles being disposed of in rubbish bins or as litter in parks and waterways. These additional water 'bubblers' were considered and approved for Randwick's coastal walkway over 2 financial years. 	

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City of Ryde (Announced May 2019)	<p>Ban of single-use plastics in Council events</p> <p>Phase out of single-use plastic use in all Council operations and Council-sponsored events over the next year.</p>	<p>Education program</p> <ul style="list-style-type: none"> Council to undertake a waste education program as part of the policy to assist local businesses and community organisations to reduce their use of single-use plastics. <p>Alternative products</p> <p>Council has installed filtered water refill stations at 24 popular locations around our City. Each have a water fountain, bottle refill point and some also include a dog bowl.</p>	Council has not reported on the obstacles/successes of the program.		Council adopts new policy to reduce single-use plastic use
Events					
Wave Rock Weekender Festival, WA	Single-use plastic ban	<p>Ban:</p> <ul style="list-style-type: none"> Cable ties are banned from production set-ups Single-use plastic food and beverage containers and cups are banned and all food trucks and bars have to pass a test to get into the festival. <p>Alternative products:</p> <ul style="list-style-type: none"> Refillable keep cups are provided on necklaces Food trays are made from biodegradable materials, e.g. potato starch, coconut. 	The obstacles of the program have not been reported on.	The 2017 Wave Rock Weekender report on waste outcomes reported that the introduction of filtered drinking water stations reduced plastic bottle waste, and the contribution of compostable materials reduced waste to just 199 grams per person.	Can you really have a plastic free music festival? This one in WA proves you can

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<p>“The Lands” Festival, Victoria</p>	<p>Single-use plastics ban, including:</p> <ul style="list-style-type: none"> • Plastic bags • PET or fossil fuel-based single-use plastic water bottles (backstage or sold by food/drink vendors on site) • Plastic straws and plastic cutlery 	<p>Alternative products:</p> <ul style="list-style-type: none"> • Reusable Velcro cable ties for staging and infrastructure. • Vendors advised to use recyclable or biodegradable food packaging, cups, and utensils biodegradable tape and carpet to cover cables and wires. • 100% biodegradable, certified 100% compostable waste bags. • 100% biodegradable and compostable baby wipes in parents’ rooms. • Vendors advised to use recyclable materials for signage, onsite programs and accreditation items such as lanyards and wrist bands. • Reusable water bottles and cups are available for purchase on site. • Recyclable materials are used for accreditation items including wrist bands. <p>Monitoring</p> <ul style="list-style-type: none"> • All vendors monitored on-site. 	<p>The obstacles/successes of the program have not been reported on.</p>		<p>Festival website</p> <p>Sustainability initiatives</p> <p>Interview with founder</p>
<p>Bentleigh Farmers’ Market (BFM), Victoria</p>	<p>Single-use plastic ban</p>	<p>Alternative products</p> <ul style="list-style-type: none"> • Stallholders are not permitted to provide customers with any plastic carry bags. Stallholders may provide paper bags. • Re-usable jute bags are available for sale at every market. • BFM encourages all customers to bring their own mugs, and/or use reusable cups. • BFM replaced plastic spoons with silver ones. • The market sells a small supply of keep cups for customers who do not BYO at every market. • The market has a “wash and go system” for reusable cups and mugs. • Stallholders selling any take away items are encouraged to use reusable containers as a first priority, compostable cups and 	<p>The obstacles/successes of the program have not been reported on.</p>		<p>BYO BAGS and No Plastic Bag Policy</p> <p>Farmers' market adopts war on waste policy during plastic-free July</p>

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		<p>containers as a second priority and recyclable containers as a last resort.</p> <ul style="list-style-type: none"> Customers can return used plastic plant pots and plastic packaging to certain stalls that were bought from them. Many stallholders wrap produce in paper, and now use paper bags instead of plastic. <p>Promotion/education</p> <ul style="list-style-type: none"> The BFM team actively promote the BYO bag policy and the BYO mug policy and program on all market literature and advertising material. BFM has a zero-waste stall at each market to promote the program and provide advice, education and assistance to customers and stallholders. <p>Audit</p> <ul style="list-style-type: none"> BFM aims to audit the waste streams entering their bins, to determine the effectiveness of their waste strategies. <p>Incentives</p> <ul style="list-style-type: none"> One stallholder, Elgaar Farm encourages return of their empty glass bottles and 50 cents comes off the price of a new bottle of milk, cream, or yoghurt. 			
<p>Splendour In The Grass (Announced 2018)</p>	<p>Single-use plastic ban:</p> <p>Festival to remove all single use plastic water bottles over the next three years.</p> <p>Banned the use of plastic straws in all bars and stalls.</p>	<p>Alternative products</p> <p>Festival lifted ban on stainless steel water bottles.</p> <p>Encourages festival-goers to bring their own reusable water bottles to fill up at the festival site.</p> <p>Festival also encourages attendees to bring keep cups and reusable bags, and to take home plastic ponchos, tarps, and tents.</p> <p>Education</p>	<ul style="list-style-type: none"> Festival single-use plastic ban of water bottles and plastic straws does not address identified issue of patrons' behaviour, i.e. discarding single-use plastic ponchos, plastic 		<p>Splendour In The Grass To Phase Out Plastic Water Bottles & Straws, Beginning In 2018</p>

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		<p>SITG volunteers (Eco-Cops/Waste Warriors) were utilised to educate and incentivise patrons throughout the event. This included an educational hub providing information on the SITG waste management system, judicious schedules for manned waste stations with the internal event, especially those within food vendors and marketplaces and, roaming volunteers offering incentives to patrons, especially within the campgrounds.</p>	<p>bottles, and tents on the campsite.</p> <ul style="list-style-type: none"> Attendees are banned from having plastic bottles in some areas of the festival but not others. Single-use plastic ban does not extend to food containers, cups, or utensils. 		<p>Splendour in the Grass - Environment</p>
<p>Queen Victoria Market, Melbourne</p>	<p>Plastic bags and straws banned as of May 2019</p>	<ul style="list-style-type: none"> Thin and thicker (“reusable”) bags are both banned. “Barrier bags? (for meat & fish) are still allowed. <p>Support for alternatives</p> <p>Trolley hire from one stall; reusable bags and straws on sale at the Visitor Information Hub; recycled boxes available from 2 locations. Some vendors accept BYO reusable containers at their discretion.</p>	<p>The obstacles/successes of the program have not been reported on as the initiative is new.</p>	<p>This ban follows that instigated by the South Melbourne market in 2018 on straws and bags (in two phases).</p>	<p>QVM announces bag & straw ban</p>



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