



Global Research
Turning **Information** Into **Insight**

City of Melbourne – Draft Waste and Resource Recovery Strategy

Public Engagement Analysis

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Report prepared by Global Research Ltd

For



CITY OF MELBOURNE

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Executive summary

- Over 1,150 Melburnians provided feedback on The City of Melbourne's Draft Waste and Resource Recovery Strategy (the Strategy) between 21 May to 28 July 2018. Contributors included: city residents and workers; resident groups and associations; precinct trader associations; waste industry associations and businesses; and, state government departments within the environment portfolio.
- Overall, feedback on the Draft Waste and Resource Recovery Strategy was supportive of the general approach, as well as of specific priorities and actions. Contributors sought high-level changes, as well as individualised behaviour change, to reduce waste impacts and increase recovery of resources.
- Information was received via: City of Melbourne's Participate Melbourne and general websites (3,750 visits); social media posts; a public forum; a retail and hospitality forum; and, direct submissions. Mechanisms to encourage feedback included: four discussion papers; and, three face-to-face events.
- Seventy nine percent of contributors live in Melbourne. Respondents connections to Melbourne (live here, own a business here, etc) had minimal influence on their responses.
- Results to two direct questions were:
 - Highest and lowest Priority importance:
 - Highest importance: Priority 1 (Reduce, reuse, recycle, recover) – 93% rated high
 - Lowest importance: Priority 4 (Reducing amenity impacts from waste collection) – 42% rated high.
 - The three initiatives that were considered the most helpful to reduce waste were:
 - Education programs about waste avoidance, reuse and recycling
 - A container deposit program for Victoria (e.g. 10 cents for bottles)
 - A third bin, for food scraps and garden waste.
- Key findings from written comments were:
 - Residential and hospitality waste were the main forms of waste discussed by contributors. With a small amount of comment focused on industrial waste, such as from the construction sector.
 - Contributors valued efforts to reduce waste generation, and for waste that is produced to be sustainably and responsibly managed through resource recovery and limiting landfills.
 - New or improved waste management systems and actions were thought to be required to move the City of Melbourne and its residents and businesses in a more environmentally responsible direction.
 - Support from CoM, in terms of providing appropriate infrastructure and services, was thought will lead the community to be more proactive in how it manages waste.
 - Education, initiatives, and new regulations or legislation were identified as ways to promote better practices.
 - Overall, changing behaviours and increasing public and commercial sector waste management (particularly hospitality) knowledge were thought to be key to improving resource recovery and reducing waste generation.

Introduction

OVERVIEW

This report presents analysis of feedback on the City of Melbourne's Draft Waste and Resource Recovery Strategy (the Strategy). The feedback was collected during the consultation and engagement period from 21 May to 28 July 2018. The purpose of the engagement was to obtain stakeholder input to inform the final Strategy.

ENGAGEMENT PROCESS

A dedicated page on the Participate Melbourne website containing: the Draft Strategy; associated Discussion Papers; and, other related information, invited feedback and ideas through an online survey and a document submission option.

The consultation and engagement were promoted to a wide range of stakeholders, including:

- City residents and workers
- Resident groups and associations
- Precinct trader associations
- Waste industry associations and businesses
- State government departments within the environment portfolio.

Promotional channels included the following were used:

- City of Melbourne's Participate Melbourne and general websites
- City of Melbourne newsletters such as Green Leaflet and Knowledge Melbourne newsletters
- Social media including the Eco-City Facebook and Twitter channels, City of Melbourne Facebook and LinkedIn sites
- Direct email of engagement flier to stakeholder network lists
- Sustainability Victoria and Victorian Waste Management Association newsletters.

Four discussion papers were released during the consultation period, on the following topics:

1. Waste collection in the central city
2. Current recycling challenges
3. Food waste
4. Waste to energy

Two events were held to allow stakeholders a face-to-face opportunity to provide feedback on the Draft Strategy:

- Public forum and workshop
- Forum for retail and hospitality sector.

A Melbourne Conversations event was also held to encourage debate. No feedback was captured at the event, but attendees were provided with a link to the online survey.

A range of other face-to-face meetings were also held with industry and government stakeholders.

The Participate Melbourne webpage was visited by over 3,750 individual visitors throughout the consultation period. Half of these visitors came to the site through a link from a social media site. Twenty-three per cent came directly to the site (by entering the website into their browser), 21 per cent from other websites and seven per cent by searching in a search engine.

FEEDBACK COLLECTED AND ANALYSED

Submissions were collected from the City of Melbourne community in five ways. All of the information below has been analysed within this report to inform finalisation of the Strategy:

- **Participate Melbourne Website online survey:**
 - 891 contributions were made by answering a six-question survey. The survey contained three closed (response selection) questions, analysed in the first section of the report and three open ended free-text questions (which have informed the synthesis of comments contained in the body of the report). These were the three open-ended comments that were asked:
 - 2. Do you have any comments on the priorities?
 - 4. Is there anything else that would be helpful?
 - 5. Do you have any comments on the Draft Strategy or Discussion Papers?
 - The survey also asked contributors to specify their connection to Melbourne such as whether they lived or worked here. Analysis of contributors' responses, from connection to Melbourne group perspectives is presented in Appendix 1.
- **Social media posts:**
 - 140 contributors expressed opinions on five social media posts covering these topics: waste to energy; current recycling challenges; food waste; world environment day; general. All of these comments informed the synthesis of comments contained in the body of the report.
- **Public forum**
 - A public forum was held to gain face-to-face feedback on the Strategy from members of the Melbourne community. 35 people attended the forum. Feedback was provided on sticky notes, which were later collated into twelve pages of bullet pointed notes. The comments focused on the overall Strategy and goal and the four priorities. All of these comments also informed the synthesis of comments.
- **Retail and hospitality forum**
 - A forum was held targeting City of Melbourne's retail and hospitality sectors. Eighty people attended the forum. Feedback was provided on sticky notes, which were later collated into twelve pages of bullet pointed notes. The comments focused on food waste, single use items/packaging, waste collection, and other ideas. All of these comments also informed the synthesis of comments.
- **Direct submissions**
 - Twenty-two emails and six PDFs were received during the consultation period on a variety of topics. These comments also informed the synthesis of comments.

ANALYSIS AND RESULTS PRESENTATION

Analysis approach

This report is an objective presentation of all feedback received on the Draft Waste and Resource Recovery Strategy. The purpose is to present to the City of Melbourne a synthesis of the comments and suggestions on what has been proposed, with a focus on suggestions for how the Strategy can be improved.

Quantitative analysis of response selection questions

The analysis is broken into two main parts. The first section contains quantitative analysis of contributors' responses to two selection questions, which asked survey respondents to assess how important each of the four Strategy Priorities are to them and the second question asked respondents to rank the importance of nine Strategy initiatives.

For the Priorities assessment question, each respondent was asked to individually rank each Priority. The results were analysed by counting and presenting the number of times each Priority was ranked 1–5. The results have been presented in a chart and a written interpretation of results has also been provided.

For the importance of initiatives question, respondents were asked to rank all of the nine initiatives one to nine – forcing respondents to compare initiatives. To complete this analysis, the number of times each initiative was ranked 1–9 has been presented on a chart and interpreted. Additional charts also contain the number of times each initiative was ranked '1' and the number of times each was ranked '1, 2 or 3'.

Qualitative synthesis and analysis of written feedback

All written feedback has been analysed in a single analysis framework, no matter how it was collected. The framework was primarily based on the Strategy's Priorities. Under each of the Strategy Priorities, relevant themes and topics were created to combine similar comments. In addition to the Priority themes, comments that were more general in nature, or discussed broader themes, were combined in their own group of topics. Once all comments had been read and grouped into appropriate topics, analysis of the most to least common points made on each topic was completed. This is presented in the discussions that comprise the body of the report.

In completing this analysis most comments have been included in multiple places, as they provided multiple ideas, and so the total number of comments analysed is significantly more than the number of individual pieces of feedback received.

To assist the analysis, NVivo qualitative analysis software was used. Multiple analysts completed the organising of comments into topics and the report writing; this and peer review of analysts' work reduced individual bias within the findings.

Report structure and presentation

Following the Introduction section, Key findings are presented. These are the main points made by contributors on the Strategy. They included the most common individual points made on particular topics and also themes and topics that ran through multiple areas of the analysis.

The next section is the Analysis of Option Selection Questions. This presents the quantitative analysis of response option questions (described above). Results are presented as summary charts and a written description of individual findings is also provided.

The final section is the Analysis of Contributors' Comments. This is a synthesis of the comments made under each topic, initially ordered by Priorities 1–4 and then followed by a discussion of general comments. Each section begins with a Summary of findings for that section. The discussion within each section is then ordered by key topics, in order of the most commonly discussed to the least discussed. Sub-topics, again in the order of least to most discussed are presented under each of the topics. Within the discussion, to indicate the number of points made on topics, the descriptors below have been consistently applied:

- | | |
|---|----------------------------|
| – A very large number of comments: 150+ | – A moderate number: 15–24 |
| – A large number: 100–149 | – Several: 8–14 |
| – A sizeable number: 75–99 | – A small number: 4–7 |
| – A substantial number: 50–74 | – A few: 3 |
| – A considerable number: 25–49 | – A couple: 2 |

The use of proportions, such as: *half*, *three-quarters*, or *two-thirds* of a particular section, have also been used when appropriate. It is important to note that these proportions are for the topic being discussed, and do not represent the proportion of contributors who hold a particular viewpoint across the whole project.

Representative quotes from contributors are included to illustrate specific points throughout the report – they are italicised and indented from the margins. Quotes are verbatim; spelling and grammar errors have not been corrected. They present the flavour and depth of opinions on particular topics, in contributors' own words.

Throughout the report, those who have contributed feedback on the report have been referred to as contributors.

Key findings

OVERALL

Contributors considered waste management and resource recovery issues important for the City of Melbourne. Overall, they valued efforts to reduce waste generation, and for the waste that is produced to be sustainably and responsibly managed to recover useful resources and limit landfill volumes. New or improved systems and actions were thought to be required – to push the way City of Melbourne and its residents and businesses deal with their waste in a more environmentally responsible direction. Support from CoM, in terms of providing appropriate infrastructure and services, was thought to lead the community to be more proactive in how it manages waste. Education, initiatives, and new regulations or legislation were also thought to promote better practices. Overall, changing behaviours and increasing public and commercial sector waste-management knowledge (particularly in hospitality) were thought to be key to improving resource recovery and reducing waste generation.

Residential and commercial sector hospitality businesses waste were the main areas discussed by contributors. A relatively small amount of comments focused on industrial waste, such as that created by the construction sector.

A very large number of suggestions and ideas were submitted, many of which were examples of effective systems implemented in other parts of Australia or in other countries.

SPECIFIC FINDINGS

Assessment of Priorities and initiatives from Participate Melbourne Survey respondents

- When asked directly in closed-response survey questions, contributors rated Priority 1 (Reduce, reuse, recycle, recover) as having the highest importance, whereas Priority 4 (Reducing amenity impacts from waste collection) was considered to have the lowest importance.
- When provided with nine initiatives to rank according to helpfulness in reducing waste, these were the three highest ranked initiatives: education programs about waste avoidance, reuse and recycling; a container deposit program for Victoria (e.g. 10 cents for bottles); and, a third bin, for food scraps and garden waste.

Priority 1: Reduce, reuse, recycle, recover

- Priority 1 was the most commonly discussed and supported Priority, with most Participate Melbourne online survey contributors ranking it as very important (90%).
- Contributors' comments primarily supported efforts to reduce the amount of waste generated, as many thought that this was key to positive change. Recycling and recovery of resources from waste were also deemed important steps in limiting the volume of waste going to landfill; primarily, infrastructure and services to support residents and businesses in recycling items and allowing resources, especially organic waste, to be recovered from waste

and ideally converted to compost. Reuse was the least commented on aspect of Priority 1; however, those that commented, supported resale and repair of goods.

Priority 2: Developing landfill alternatives

- Overall, contributors sought valuable resources to be diverted from landfill.
- Harnessing energy from waste was the most commonly discussed landfill alternative. This was a contentious topic; some considered this a better alternative for waste than landfill, while others argued that this was not environmentally responsible and may in fact encourage waste generation.

Priority 3: Stimulating innovation

- Support for innovative ideas to manage waste was expressed by a substantial number of contributors. Many considered funding essential to develop new technologies or systems to more efficiently and sustainably manage waste and/or recover resources. Waste from the hospitality sector and/or organic waste was commonly discussed.
- As technology advances, it was felt that more modern and advanced waste management options would be designed and implemented.

Priority 4: Reducing amenity impacts from waste collection

- Reducing the impact of waste and associated infrastructure and services on amenity was discussed by a substantial number of contributors. For many of these contributors, the current bins and waste collection services decreased Melbourne amenity values through visual and noise pollution.

More synchronisation and collaborative collection methods were suggested to reduce noise and transportation issues.

LEVEL OF SUPPORT FOR THE STRATEGY

Overall, feedback on the Draft Waste and Resource Recovery Strategy was supportive of the general approach, as well as specific priorities and actions. Contributors stated that high-level changes, as well as individualised behaviour change, were needed to reduce waste impacts and increase recovery of resources. A small number of comments opposed specific elements of the Strategy, although typically they expressed support for an alternative initiative or suggested a new idea; for example, focusing on reducing waste and recovering resources was preferred over investing in stimulating innovation.

Across all Priorities, Priority one (reducing, reusing, recycling and recovering waste) received the most feedback, with investment in this Priority being widely supported. Reducing waste production was considered the most effective waste management method, with contributors believing that waste reduction would ultimately reduce the need to recycle and recover. In addition, contributors were very supportive of recovering waste, particularly organic waste that is a by-product of commercial and residential activities. Specific practical solutions for change included, for example, practical solutions for waste recovery for businesses, and apartments and high-rise buildings.

On Priority two (developing landfill alternatives), contributors were divided on instigating waste to energy schemes. While two-thirds of contributors were supportive of waste to energy, one third were opposed. Contributors in opposition were concerned that this approach could increase environmental pollution, greenhouse gas emissions, or demand for waste.

Contributors were mostly supportive of Priority three (stimulating innovation), with only a small number opposed. Supportive comments discussed Priority three as forward thinking and contributing to increased sustainability. Opposing comments were sceptical about costs and/or believed other priorities would more effectively improve waste management.

Priority four (reducing amenity impacts from waste collection) received general support, with no opposing comments. Some comments highlighted Priority four as a measure of the success of other Priorities, while other comments expressed general satisfaction with this Priority.

SUGGESTIONS AND RECOMMENDATIONS

Contributors suggested that regulations, incentives, CoM actions, education programs and specific ideas could be used to better enhance waste management. Regulations were seen as a way to encourage residents and businesses to comply with waste management. Contributors sought the implementation of new regulations, such as: law and policy changes; fines for non-compliance; and, waste taxes. Contributors also discussed holding businesses, landlords, and individuals more accountable for the waste they produce.

Incentives were considered as a way to reward businesses, residents, and communities who practice effective waste management. Contributors suggested: discounts for customers using reusable products (e.g. coffee cups, or containers); reducing rates for businesses or households that consistently reduce landfill waste; and, rewards for producers reducing the amount of plastic product packaging. Recycling incentives were also sought, such as container deposit schemes and rewards for businesses that use sustainable materials.

Actions that CoM could undertake to enhance waste management practices included providing more support for businesses, such as: specific strategies to reduce waste; information on disposal or separation; monitoring and auditing; and, more recognition for businesses operating sustainably. Contributors also wanted CoM to collaborate with other municipal agencies, central and state government, institutions and communities to ensure the most efficient waste management approaches are put in place. In addition, some contributors wanted CoM to review previous research undertaken on waste management, such as “the War on Waste” survey. Several best-practice examples from Australian and international jurisdictions were suggested as approaches that CoM could adopt. CoM procurement was discussed, and contributors suggested that: CoM foster markets for recycled materials; resource and provide more effective waste collection; and, implement strategies that provide employment opportunities.

STRATEGY RECOMMENDATIONS ~ OMITTED ASPECTS AND SUGGESTIONS

The most commonly suggested change to the Strategy was for CoM to take more action and deliver with greater speed – some thought that CoM was lagging behind other Councils, both nationally and internationally. Contributors sought faster implementation of proposed actions to reduce environmental impacts, and ultimately reducing the volume of waste going to landfill. Contributors also expressed frustration with regulations that prevent businesses donating surplus food to worthy causes, over it entering the waste stream.

Contributors also wanted CoM to have an ambitious approach to reducing waste.

A number of comments were made regarding the process of the Draft Strategy. Some contributors believed that aspects of the Draft Strategy need greater clarity. Specifically, this referred to: defining key terms; better wording of the document; and, more information on specific projects within the Strategy.

Analysis of option selection questions

In the Participate Melbourne Website online survey, two selectable answer questions were included. The section below presents the analysis of 891 CoM Waste and Resource Recovery Strategy Survey responses to the two questions. Further analysis of what each connection-to-Melbourne group discussed is presented in Appendix 1; no differences were identified between the comments from any of the groups. Appendix 2 presents the data tables used to prepare charts.

COMPOSITION OF ONLINE SURVEY RESPONDENTS

Contributors were asked: What is your connection to Melbourne?

RESULTS

Figure 1 presents the Participate Melbourne Website online survey contributors' connection(s) to Melbourne.

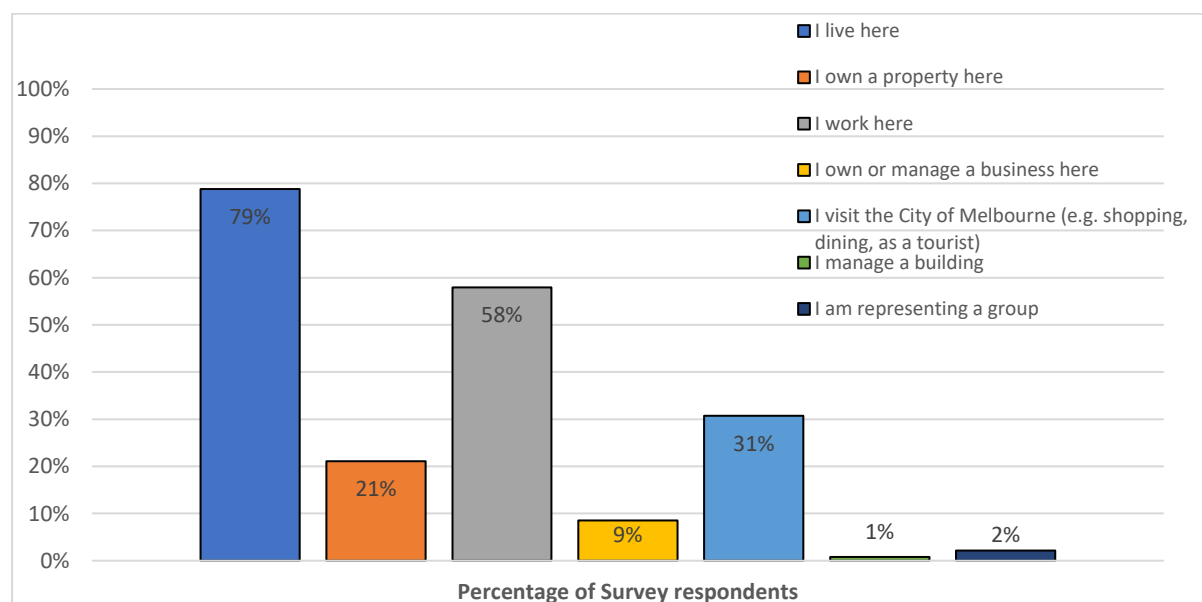


Figure 1: Contributors' connection(s) to Melbourne

The bar chart displays the percentages of online survey contributors' connection(s) to Melbourne. Note that respondents could have more than one connection to Melbourne. Key (right) indicates the colour of each connection type. Percentage of each connection is displayed in the corresponding bar; percentages rounded to nearest whole number.

ANALYSIS

Contributors' connection(s) to Melbourne:

- **Contributors' most common connection to Melbourne:**
 - 79% of contributors (702) live in Melbourne.
 - 58% of contributors (516) work in Melbourne.
 - 31% of contributors (274) visit Melbourne.
- **Contributors' least common connection to Melbourne:**
 - 1% of contributors (7) manage a building in Melbourne.
 - 2% of contributors (19) represented a group from Melbourne.

IMPORTANCE OF PRIORITIES

Contributors were asked: How important are the four priorities to you? (rating out of five)

The four priorities that contributors were asked to rate were:

- **Priority 1: Reducing, reusing, recycling, and recovering waste.**
- **Priority 2: Developing landfill alternatives** (by establishing large processing facilities for the material that we currently send to landfill).
- **Priority 3: Stimulating innovation** (by providing financial support for businesses, social enterprises and community groups).
- **Priority 4: Reducing amenity impacts from waste collection** (noise and congestion, bins on the street, dumped rubbish and overflowing bins, vermin and litter).

RESULTS

Figure 2 presents the number of times each importance rating was selected for each Priority.

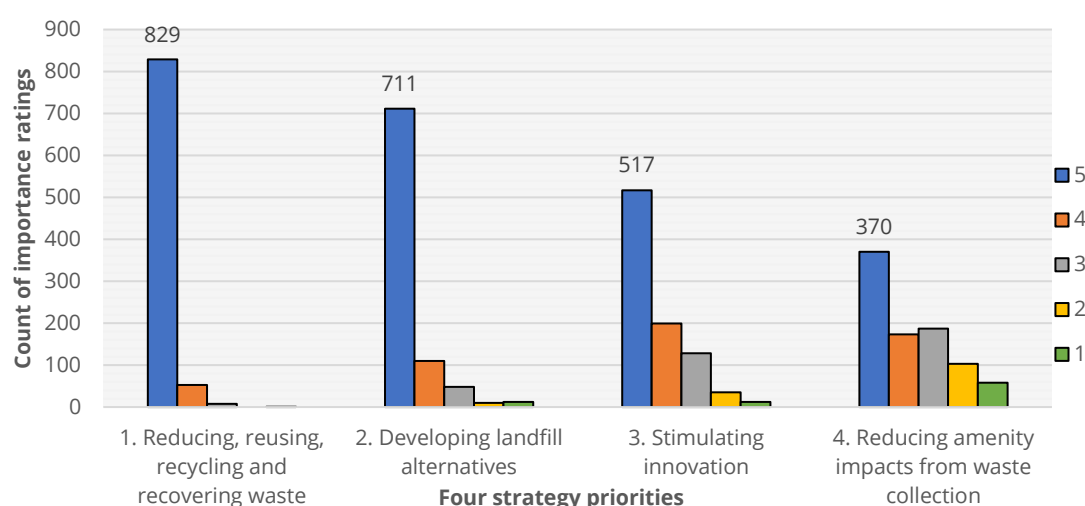


Figure 2: Rated importance of priorities

The number of online survey contributors who rated the importance of each Priority (x-axis) from 1-5 is displayed (1 being lowest priority to 5 being highest priority; colour key shown on right). The number of contributors rating each priority as having high importance (number 5) is presented in the chart, above the blue bars.

ANALYSIS

Contributors' assessment of the importance of priorities:

- **Priority 1: Reducing, reusing, recycling and recovering waste** was the most important priority for respondents:
 - 93% of contributors ranked Priority 1 as number 5
 - 6% of contributors ranked Priority 1 as number 4
 - 1% of contributors ranked Priority 1 as either number 3-1
- **Priority 2: Developing landfill alternatives by establishing large processing facilities for the material that we currently send to landfill** was the second most important priority:
 - 80% of contributors ranked Priority 2 as number 5
 - 12% of contributors ranked Priority 2 as number 4
 - 7% of contributors ranked Priority 2 as either number 3-1
- **Priority 3: Stimulating innovation by providing financial support for businesses, social enterprises and community groups** was the third most important priority:
 - 58% of contributors ranked Priority 3 as number 5
 - 22% of contributors ranked Priority 3 as number 4
 - 19% of contributors ranked Priority 3 as either number 3-1
- **Priority 4: Reducing amenity impacts from waste collection (noise and congestion, bins on the street, dumped rubbish and overflowing bins, vermin and litter)** was the fourth most important priority:
 - 42% of contributors ranked Priority 4 as number 5
 - 19% of contributors ranked Priority 4 as number 4
 - 40% of contributors ranked Priority 4 as either number 3-1

RANKING OF INITIATIVES

Contributors were asked: As a resident, what would help you most to reduce your waste?

Contributors were asked to rank each initiative from 1-9; where 1 is the most helpful initiative to reduce their waste, to 9, the least helpful initiative to reduce their waste.

Initiatives contributors were asked to rank from most to least helpful were:

- A container deposit program for Victoria (e.g. 10 cents for bottles).
- A reuse and repair centre.
- A third bin, for food scraps only.
- A third bin, for food scraps and garden waste.
- Better recycling systems and education for apartment buildings.
- Council taking your rubbish to a high-tech facility to recover materials and/or energy.
- Drop-off locations for food scraps.
- Drop-off locations for soft plastics and polystyrene.
- Education programs about waste avoidance, reuse, and recycling.

ALL RANKINGS FOR ALL INITIATIVES

Figure 3 represents the number of times each initiative was ranked 1 (most helpful) through to 9 (least helpful).

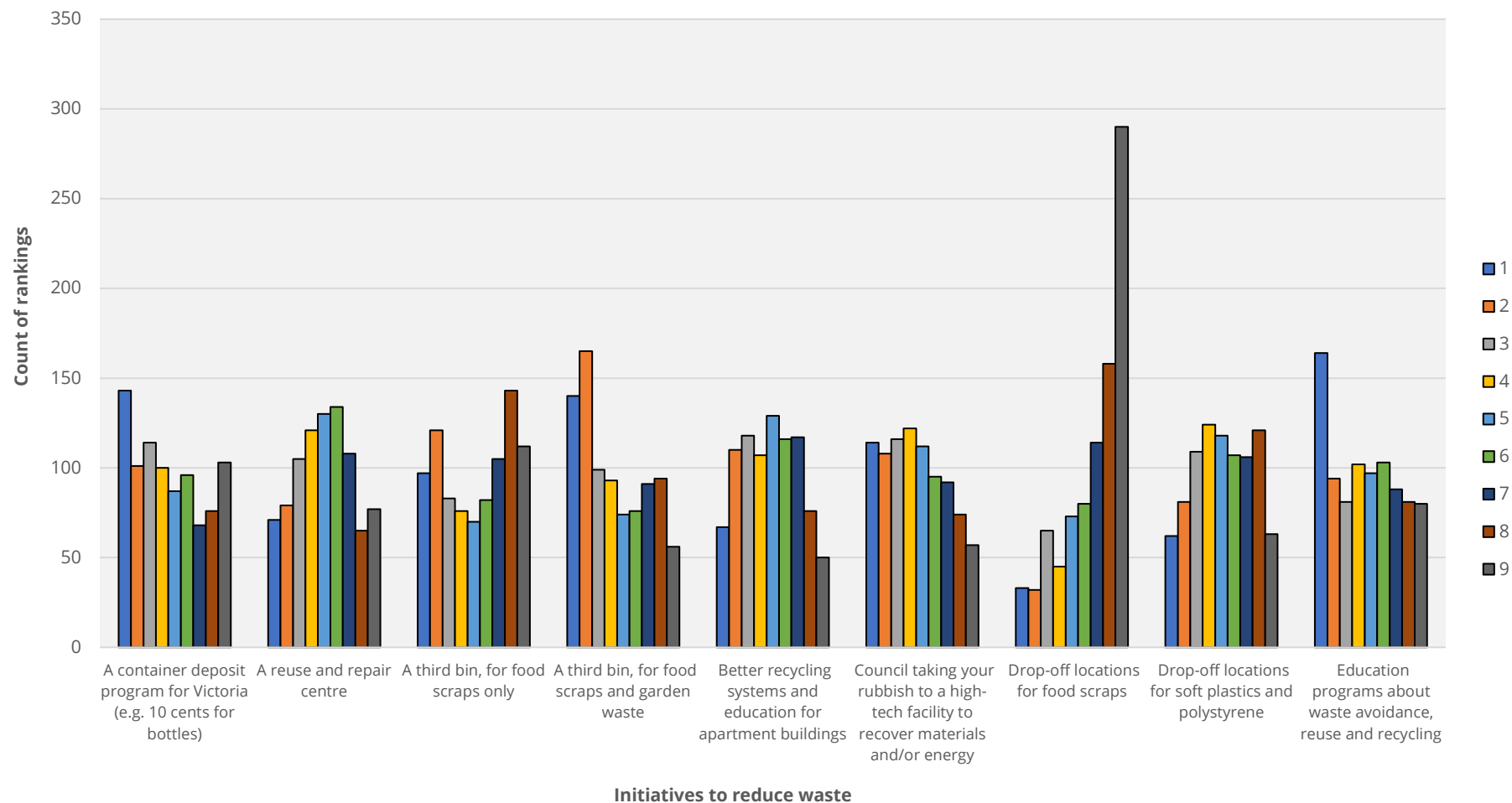


Figure 3: Count of contributor rankings for waste and resource recovery initiatives

The count of the number of online survey contributors' who ranked each initiative (x-axis), from most to least helpful, is displayed (1 being most helpful to 9 being least helpful; colour key on right).

NUMBER OF TIMES EACH INITIATIVE RANKED 1

Figure 4 presents the number of times each initiative was ranked number 1.

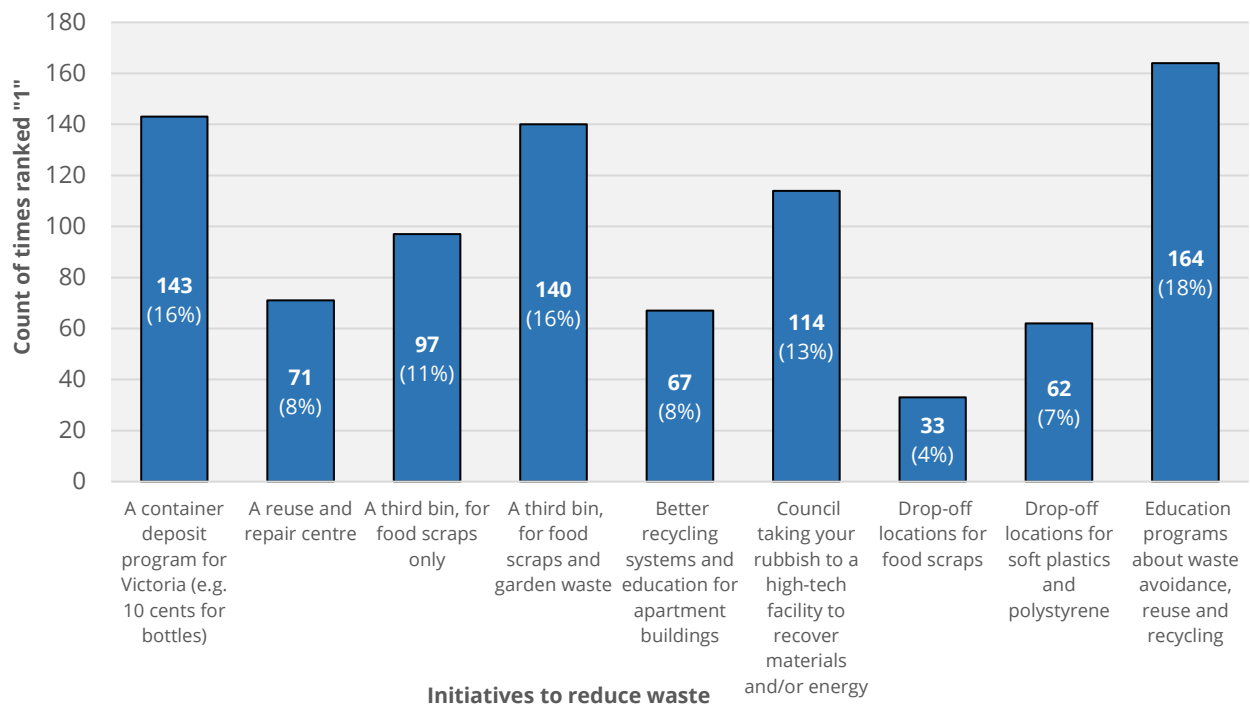


Figure 4: Count of times each initiative was ranked first

The count of the number of online survey contributors' who ranked each initiative (x-axis) as most helpful (1) is displayed in each bar. The percentage of number 1 rankings that each initiative received is also shown.

NUMBER OF TIMES EACH INITIATIVE RANKED 1-3

Figure 5 presents the count of the number of times each initiative was ranked in first to third position.

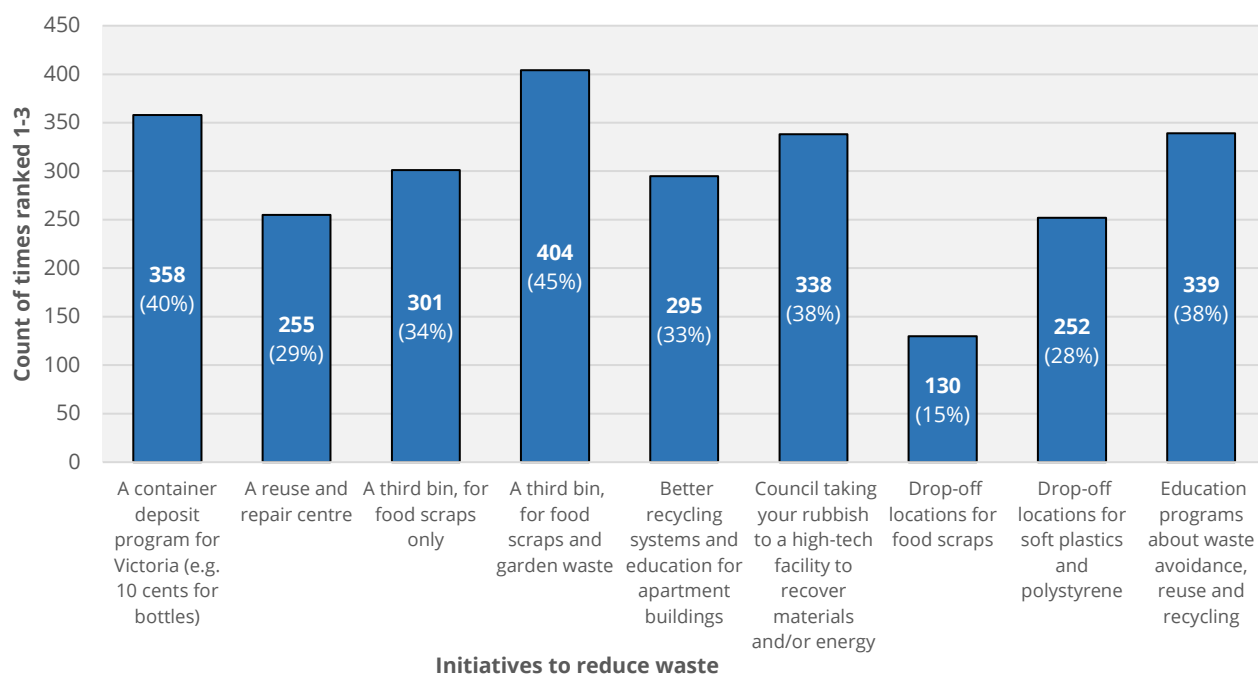


Figure 5: Count of times each initiative was ranked in positions 1-3

The count of online survey contributors who ranked each initiative (x-axis) in one of the first three positions is displayed (rankings 1-3). The number of contributors who ranked each initiative in the first three positions (rankings 1-3) are shown in each bar; the percentage of 1-3 rankings that each initiative received is also shown.

NUMBER OF TIMES EACH INITIATIVE RANKED 7-9 (LEAST POPULAR)

Figure 6 presents the count of the number of times each initiative was ranked from seventh to ninth position.

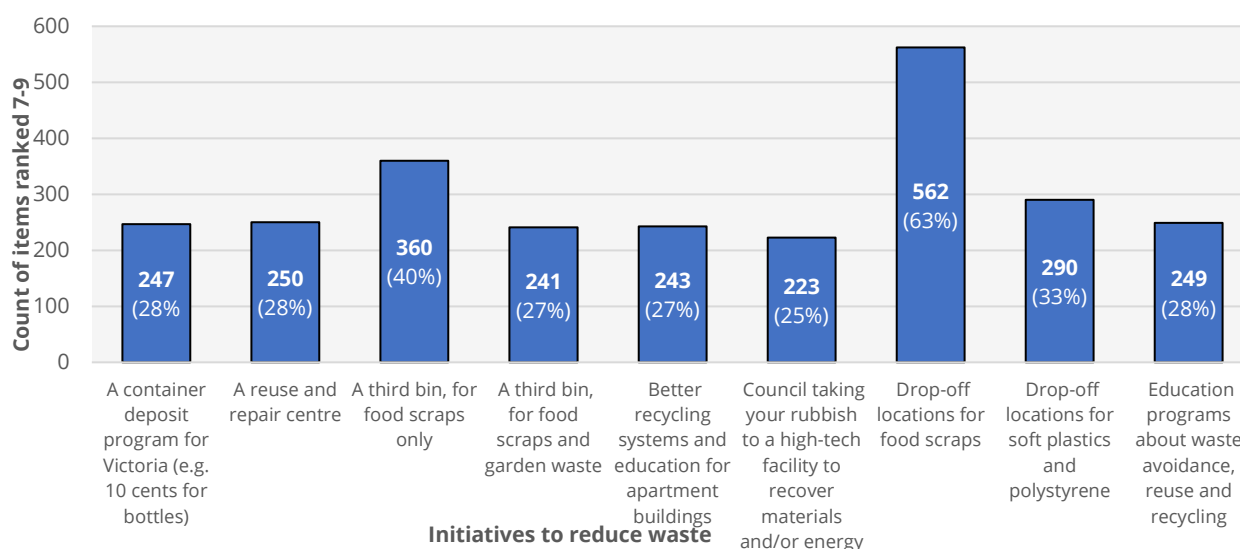


Figure 6: Count of times each initiative was ranked in positions 7-9

The count of online survey contributors who ranked each initiative (x-axis) in the last three positions is displayed (rankings 7-9). The number of contributors who ranked each initiative in the last three positions (rankings 7-9) are shown in each bar; the percentage of 7-9 rankings that each initiative received is also shown.

ANALYSIS

Highest ranked initiatives:

- **Education programs about waste avoidance, reuse and recycling**
 - Most commonly ranked as number 1. Ranked 1 by 162 contributors (18%).
- **A container deposit program for Victoria (e.g. 10 cents for bottles)**
 - Second most commonly ranked as number 1. Ranked 1 by 143 contributors (16%).
- **A third bin, for food scraps and garden waste**
 - Third most commonly ranked as number 1. Ranked 1 by 140 contributors (16%).
 - Received the highest number of 1-3 ranking. Ranked 1-3 by 404 (45%) contributors.

Lowest ranking initiative:

- **Drop off locations for food scraps**
 - Fewest number 1 rankings – Ranked 1 by 33 (4%) of contributors.
 - Received the highest number of 7-9 rankings and number 9 rankings; 562 (63%) contributors and 290 (33%) contributors, respectively.
- **Third bin for food scraps only**
 - Received second most 7-9 rankings; by 360 contributors (40%)

Analysis of contributors' comments

The discussion that follows presents analysis of all written feedback provided to the City of Melbourne on the Draft Waste and Resource Recovery Strategy.

General comments that did not relate to one of the four Priorities have been discussed in the first section. The following sections present all comments regarding each of the four Priorities.

GENERAL COMMENTS

Summary of findings

Overall:

A very large number of comments discussed broad topics outside of the four priorities. There was no overall theme within these comments.

Specific findings:

- Changing behaviour: Contributors believed that the most effective way to change behaviours was through education aimed at schools, businesses and residents. The need to educate on the types of products that could be recycled, and on composting, food waste, and waste reduction generally was also identified. Education programs targeted toward residents, businesses, and schools were sought. Also sought was more information to improve uptake of recycling, composting organic waste, and, waste reduction generally. Contributors also wanted residents to be more connected with their waste and acknowledged difficulties in creating behaviour change.
- Contributors reported on the effectiveness, ambition and leadership of the CoM. Contributors believed that CoM could do more regarding waste and resource recovery management and initiatives. They also wanted CoM to be more ambitious and proactive in setting targets and measuring performance. They also suggested a range of actions that could be undertaken by the CoM such as: supporting businesses in waste resource recovery, collaborating with other Councils, instigating targets and measurements, and changing the CoM procurement policy to be more environmentally conscious.
- Regulation: Introducing new regulations were seen as a way to encourage businesses and residents to better manage their waste. Contributors wanted more effective laws and policies, taxes on waste, fines for non-compliance, and more accountability for businesses and residents with poor waste management practices.
- Environmental impacts: The impacts of waste and litter on the environment, particularly local waterways, was a concern for contributors. Many sought more emphasis on sustainability and protecting the environment.
- Apartments and high-rise buildings: Reported as having insufficient infrastructure to appropriately deal with waste streams. Contributors discussed various ways in which apartments could become better equipped to deal with different waste streams through: communal composting/community gardens and additional recycling and rubbish chutes.
- Specific ideas: A variety of ideas not related to the four priorities were presented; most commonly, contributors sought more community engagement in waste and resource recovery projects or discussed waste hierarchy.
- Examples from outside Melbourne: Contributors thought CoM should implement solutions already successfully running in other locations. Some requested that a wider area of Melbourne should be included within the Strategy, to ensure consistency throughout the region.

Educating and communicating with the public 293 comments

General

A substantial number of contributors provided general comments on education for waste management. Most comments were broad in nature and discussed the value or importance of educating residents to support waste reduction strategies.

A small number of contributors believed there was a need to educate foreigners and international students who may not be familiar with Australian waste management practices. Some contributors believed that this could be addressed through providing signage in multiple languages.

Educate in many languages – I live in a block of flats with lots of international students and they don't know.

A small number also discussed the importance of culture change and behaviour change initiatives, particularly around the use of single-use plastic items. One individual believed that this could be achieved with effective policy and more infrastructure.

I think behaviour change and creative design will occur naturally, the most important thing the CoM can do is make sure that policies and infrastructure support waste reduction and reuse; e.g. banning single use plastic, more waste sorting and landfill alternatives.

In addition, a small number felt that there needed to be more education programs and education around the waste disposal process.

I'd like to see more education for the public on the impact of their daily habits and simple changes they can make that have a big impact.

Education on recycling

A sizable number of contributors wanted more information and awareness around what materials or products could be recycled. Contributors stated that there was not enough information on various aspects of the recycling process. A moderate number of contributors highlighted a lack of awareness around what products could, and what products could not be recycled.

Very clear information postcard that shows exactly what can and can't be recycled. I am still confused

In addition, several contributors were unaware: exactly how to recycle certain products; and, what constituted contaminated recycling. Specifically, more information was sought on the range of items that can be recycled and, whether certain recyclable products needed to be washed before being sent to recycling bins.

Education and awareness should be part of all the strategies. At the moment people are very confused as to what constitutes contamination in recycling, as demonstrated by the number of people who tie their bottles up in plastic bags. Clear communication

should be increased, particularly in the short term when we are not sure if we are doing it right.

There were several contributors who stated that residents needed to be more aware of the recycling process. This included information such as: where recycling waste is sent; where it may end up; and, the consequences if waste was not appropriately sorted by households.

Other educational aspects sought by contributors discussed recycling instructions, particularly on recycling bins. Contributors stated that instructions on recycling bins and packaging were vague or non-existent and more information needed to be provided in a variety of different languages. A couple also wanted more signage in public areas or information sheets that educated residents, communities and businesses on what items could be recycled.

Multi-lingual instructions and signage for recycling bins.

Having clear and detailed information available will reduce confusion about recyclables, decreasing contamination in the recycling process and lessening the amount of recyclable waste put in the landfill bins.

Targeting residents

A substantial number of contributors wanted education campaigns to target communities or residents. Contributors stated that it was necessary to educate residents as they felt many residents discarded waste incorrectly. Specifically, a small number of contributors wanted more education on waste separation and sorting as well as education on the recycling processes as it was thought that this would encourage better waste practices.

almost every person I know doesn't realise you aren't supposed to put food waste in your regular bin and the fact when this breaks down it creates toxic gases. So education is key hot tips for reducing, reusing, recycling

Behaviour change campaigns were also sought by a small number of contributors in order to encourage people to recycle and recover more and thus change social perceptions on waste management.

Contributors also sought clearer communication that catered for different languages with a range of methods such as pamphlets. One individual wanted information sessions to teach city occupants how to recycle properly.

Education and signage in multiple languages and with pictures

Other general comments were discussed by several contributors and included: the importance of education; education is a powerful tool; and, the need for residents to educate other residents.

Targeting businesses

A considerable number of contributors wanted education campaigns or various initiatives to help inform businesses on the best waste management practices. Most comments discussed general measures that could be undertaken to support businesses such as: providing businesses with information on recycling waste; information on separating waste streams; and, encouraging

businesses to reduce consumption and waste generally. One individual wanted businesses to be educated on the potential benefits that could be obtained through operating more sustainably.

Business should be targeted more directly to start separating their waste into different streams (organic/food, recycling, cardboard etc).

A couple of contributors discussed working with high waste industries such as construction, to support them in reducing the amount of waste that was sent to landfill. Two contributors also believed that businesses were not solely responsible for waste. Instead, they suggested that education should be provided for staff and customers to better support separation of waste streams.

Assist companies to complete a waste audit for education purposes and teach staff how to separate waste streams

Targeting schools

A considerable number of contributors wanted to target schools to educate students on appropriate waste management strategies. Several favoured implementing education workshops or school programs that would help to educate both students and families on waste and appropriate waste management.

Implementing education programs for school children to teach them the importance of sustainability. This can range from teaching them how to properly discard rubbish (or how to reuse) when they're younger to more complex programs such as land management/sustainable gardening for those studying in high school. Fostering this knowledge when they're younger will pave the way for future societies to be more responsible for their waste as well as mitigating its impact on our environment.

A small number of general comments were also made that emphasised: the importance of teaching children from a young age; the importance of promoting waste education in schools generally; and, engaging families as well as children.

A couple of contributors were also concerned that international students were not aware of the appropriate waste management and believed that it was important to ensure that students were up to date with the appropriate waste management strategies.

One individual also discussed a more practical measure such as developing field trips where students could travel to either environments impacted by waste or facilities where waste was processed.

Composting food waste

A moderate number of contributors wanted more information on how to manage organic waste streams. Several stated that there needed to be more information and education on how to manage household food waste; and instructions on how they could compost food waste locally.

There was also a desire for information to be more readily available for residents who were interested in managing their waste. Contributors stated that it was difficult to find the information that was needed for composting or establishing worm farms. One individual also wanted clearer instructions on what organic matter could be composted.

There needs to be a raft of initiatives to dramatically reduce Melbourne's waste. From a residential perspective there should be a program, that includes compost bins and worm farms, to support residents accompanied by an active education program and other initiative like composting hubs and street composting currently operating in Kensington

A few contributors discussed encouraging households to self-manage their organic waste. A couple of comments also discussed behaviour change and business practices. One contributor stated that standards for produce needed to be revised in order to prevent food waste.

Change how consumers and supermarkets see 'perfect' produce. On farms so much goes to waste due to supermarkets only buying 'perfect' produce, when majority of the produce is fine!

Waste reduction

A moderate number of contributors discussed strategies to encourage waste reduction. This included mostly non-specific comments around a range of education measures that could be catered toward individuals, communities and businesses. This included information on: what waste could be disposed of and to what bin; general education around reusability to help reduce waste; teaching individuals about their own personal impact on the environment; and, creating more public awareness about waste production.

Other topics on waste reduction discussed generally included: incentives for businesses who reduce their waste; a greater focus on education to reduce waste; and, education on reducing plastic waste (e.g. over packaging).

generate less waste, educate people and generate awareness of the impact we each have on the environment.

Consumers awareness of waste production 26 comments

A considerable number of contributors stated that it was important to connect residents to their impacts. This included comments that called for a range of programs to help consumers see the waste they produced. Those discussed included: garbage tours; education programs; public bins to make waste visible; and providing factual information about waste to households. One individual also highlighted the importance of communities taking responsibility for their own waste.

Allowing communities to actually know what happens to their waste and recyclables and where they go

Acknowledging difficulty in changing human behaviour 15 comments

A moderate number of contributors highlighted some of the barriers to improving residents' waste management practices. Obstacles for better waste management included: laziness; overconsumption; and, general difficulty.

Contributors stated that in order for people to improve their waste management practices, waste needed to be visible. This was so that residents or individuals were able to see the amount of waste

they produced. In addition, contributors believed that any changes to waste management must focus on making it easy for residents to follow in order to be successful.

ultimately, while people want to do good things, we are lazy. I support anything that makes it easier for the average person to make positive changes.

Illegal dumping of rubbish from residents 3 comments

A few contributors discussed illegal dumping of rubbish by residents. One contributor believed that this could be reduced by reducing the cost of hard rubbish collection.

Stop charging for hard rubbish drop-off at the Transfer Centres and that will encourage more use rather than just dumping the rubbish elsewhere

CITY OF MELBOURNE ACTIONS 159 COMMENTS

CoM performance and ambition 86 comments

A sizable number of contributors commented on the performance and ambition of CoM.

CoM performance

Of the considerable number who discussed CoM performance, the majority thought that CoM could have done/could do more regarding waste and resource recovery management and initiatives. A sense of urgency was expressed by a moderate number of contributors; they sought faster implementation of proposed strategies (or any action) aiming to reduce environmental impacts or reduce the volume of resources going to landfill. Some added that there has been enough discussion and planning and it is now time for implementation.

Zero waste is the best aim and achievement. Needed to happen like YESTERDAY. Get cracking.

Some thought that Melbourne needs to “catch up” and be more proactive in their approach to waste and resource recovery and become a “green city”; a couple considered Melbourne to be lagging behind other regions or countries. Another gave the following statement.

Taking 'cost effective' out of the equation - being resourceful with resource recovery will be a more "cost effective" solution long term, however it will need support from council to be kick started and you will need to cop that cost otherwise nothing will happen.

A moderate number of contributors negatively discussed the performance of CoM. Most referred to regulations that inhibit residents, business owners, or communities to develop initiatives that aim to reduce volumes of waste or valuable resources going to landfill. Several referred to hospitality businesses trying to donate unsold or surplus food or the closing of Joost Bakker’s zero-waste café; more support by CoM for these types of initiatives was sought. Other comments asked for CoM to be more responsible and proactive in waste and resource management and initiatives or asked for CoM to be more engaging with the public on these matters.

CoM ambition

A considerable number of contributors thought that CoM should be more ambitious in their approach to reducing waste and valuable resources going to landfill.

You should aim to be as ambitious as possible. Melbourne has wasted far too much time not doing enough on this - you have a lot of catching up to do!

Contributors wanted CoM to be more bold, proactive, and more like other admired councils or countries, particularly European countries. A moderate number thought that CoM should be a global or national leader in implementing efficient and sustainable waste and resource recovery strategies; some called for CoM to take on modern, innovative ideas. Strong leadership, in terms of making bold decisions generally and regarding business practices, was also sought.

Several thought that CoM's proposed targets regarding waste and resource recovery should be more ambitious. Contributors thought that a CoM should aim to reach their targets in a shorter space of time (sooner than 2030) or a greater waste reduction percentage should be aimed for. One noted that more ambitious targets need to be set, otherwise Melbourne will continue to play "catch up". Another thought CoM should make environmental sustainability its top priority.

The City of Melbourne is aiming to reduce waste by only 30% by 2030? I feel this is not taking waste very seriously, since other whole industries are looking at a larger waste reduction. City of Melbourne operations needs to aim for ZERO waste by 2030 to be a role model for others to follow.

Suggested actions for CoM

73 comments

A substantial number of comments were made suggesting broad ranging actions CoM should conduct to improve waste and resource recovery in Melbourne.

Support businesses in waste and resource recovery

A considerable number thought that CoM should provide more support for businesses to responsibly manage their waste. Strategies where the best practice of waste separation and disposal are clearly detailed, and systems are implemented, were sought by a small number of contributors; monitoring, auditing, and enforcing these new guidelines was also suggested. Another small number sought an integrated collection service network for commercial waste; comments discussed the logistics of drop-off locations and CoM support, both financially and in contributing space. As a positive incentive, a small number suggested that waste-responsible businesses should be celebrated and rewarded by CoM.

Establish a list of businesses doing the right thing for others to use/learn from

Collaboration and a supportive relationship between CoM, businesses, and systems were thought to streamline waste management and resource recovery solutions by a small number of contributors.

Other comments on CoM supporting businesses manage their waste included: support individual businesses' sustainability initiatives; waste management plans or investigations for demolition and construction businesses and health services; a tailored approach to specific businesses' "waste streams"; and, promotion of a "waste expo" for facility managers.

Collaboration or advice from elsewhere

A moderate number suggested CoM collaborate with other councils, governments, research institutions, or communities to ensure that the best possible strategies for managing waste and resource recovery are put in place. Contributors' discussions on CoM collaborating or getting advice included: reference to the War on Waste Survey Key Findings and Report document, which investigated "Australia's waste attitudes and behaviours"; other Australian councils that they considered to have good approaches; seeking advice from universities; working with State and Federal governments to introduce laws regarding packaging of goods or to set up waste and resource recovery processing facilities; collaborate with utility services for greener outcomes (e.g. grease traps in hospitality); and, engage and encourage involvement of communities and support their efforts and ideas.

It's helpful knowing what City of Melbourne is in charge of and its limitations but I feel like the council could really try to lead change by bringing all the stakeholders together (Federal, State, Local governments, businesses and manufacturers and end-consumers).

Targets, management, and measurement

Several contributors broadly discussed CoM setting targets for waste and resource recovery strategies, and then implementing management and measurement of those targets. Overall, these contributors asked for all targets to be met. Specific comments included: having immediate goals as well as long-term goals; including specific projects or key performance indicators in the Strategy; conduct research on where waste comes from and how much is generated prior to developing strategies for businesses; methodology of how waste management behaviours and progress data is collected and interpreted; have audits; compare targets and achievements with international best practices; and, use technology to monitor progress.

All the priorities are fine in an abstract way. The proof comes in the specific projects and implementation. We often establish a bunch of priorities without thinking through the fine grain of how to achieve them or what they might really mean. It would be a good test to try to put actual real projects into these priorities.

Procurement

CoM procurement was discussed by several contributors in terms of waste and resource recovery. A wide range of topics were mentioned, including: CoM to foster markets for recycled materials or purchase such goods; increase rates for businesses but supply improved CoM-managed waste collection services; and, implement strategies that provide employment opportunities.

Waste Zero Australia requested that CoM award contracts and grants that focus on sustainability, especially for waste disposal companies, as well as modify procurement policy to "mandate environmental weighting criteria with special focus on recycled content in products".

Other suggested actions

A few other suggested CoM actions included: install more water refill stations to reduce need for purchasing packaged drinks; and, public behaviour and innovation will occur if CoM has policies and infrastructure in place to encourage them.

Law and policy

53 comments

Many contributors wanted stricter regulations that both businesses and consumers would have to abide by. A moderate number stated that they wanted stricter policies on packaging and recycling. Specifically, this would: make it mandatory for businesses to separate waste and recycle; make it mandatory for producers to remove unnecessary plastic on certain items (e.g. fruit and vegetables); and, make it mandatory for producers to use only recyclable products.

Bring in laws that make retailers (eg. Big supermarket) use less plastic packaging. Packaging of fresh produce that doesn't need to be packaged is out of control. Too much unnecessary waste coming from these big corporations.

A small number of contributors stated that regulations ought to go further, such as by banning the production of single use products entirely. A few also wanted to implement mandatory regulation that would require those living in apartments and high-rise buildings to separate their waste streams.

Tax

38 comments

A considerable number of contributors supported taxes on specific items or waste streams to prevent waste from being produced. Several stated that they wanted taxes on non-recyclable products and packaging to deter businesses and individuals from either producing or purchasing items and materials that would be destined for landfill. In addition, a few contributors discussed the possibility of implementing taxes on raw materials and subsidising recycled materials to encourage better recycling practices.

Regulate to force businesses to design and operate sustainably (cradle to cradle rather than cradle to grave) Putting a tax on virgin materials and subsidise recycled materials.

A small number of contributors favoured increasing taxes or levies for: residents or businesses that produced excess landfill; and, increasing the cost for dumping waste at landfill sites.

Fines

33 comments

A moderate number of contributors supported imposing fines to encourage better management of various waste streams. A small number wanted penalties for households and businesses that did not comply with regulations. Comments discussed: imposing fines as a deterrent on households and businesses that did not responsibly dispose of waste; and, increasing penalties for littering or for illegal dumping of rubbish.

Strict penalties in apartment buildings for wrong rubbish dumping. My building is terrible for putting recyclable materials in general waste and vice versa

General

15 comments

General comments from contributors around regulation discussed societal responsibility. A small number of contributors stated that businesses needed to be held more accountable for the waste

they produced; and, a couple believed that landlords and individuals should also be held more accountable for their waste. A few contributors also made non-specific comments around punishment and enforcement.

Individuals and businesses (builders in particular) need to be held responsible for the disposal of their rubbish.

ENVIRONMENTAL IMPACT

56 COMMENTS

A substantial number of contributors generally commented on the environmental impacts of waste and litter. All sought more emphasis to be placed on sustainability and being responsible for the health and preservation of the natural environment. Some stated that caring for the environment should be prioritised regardless of the cost. Plastics and polyester were often negatively referred to.

Ideally we should prioritise sustainability and the environment first. Everything else should come second considering the issues we are facing in the future

Concern regarding the amount of litter was expressed by many of these contributors. A moderate number thought more should be done to protect the waterways from litter and waste, particularly the Yarra River and local beaches; several made similar comments regarding wildlife.

Some thought that the public should be more aware and active in response to reducing waste and littering, with a small number seeking more public clean up days or events. Several expressed their frustrations regarding poor disposal habits of cigarette butts, with many noting the excessive volume in certain areas. One suggested banning smoking in public places, while others sought fines for those who littered. More regulation and enforcement regarding general litter was sought by a few other contributors. Increasing the number of public rubbish bins and how often they are emptied was thought to be an effective solution to reduce littering.

APARTMENTS AND HIGH-RISE BUILDINGS COMMENTS

54

Food waste and compost

24 comments

A moderate number of contributors addressed the effective management of organic waste by apartment residents. Some merely noted that food waste was difficult to deal with when there are no backyards, however, most contributors wanted “viable composting solutions” for those living in apartments. Many contributors provided suggestions as to how this might occur. Ideas included: small bins for homes and large bins to empty these into on the ground floor of apartments; communal or community compost bins; and, some type of collection service. A common sentiment was that there needs to be innovative thinking to solve the issue.

Implement innovative compost locations and strategies for residents living in high rise apartments within the city so that they can compost their kitchen waste locally and

contribute to local and accessible community gardens (ps. as nature time is beneficial for the overall health of a community)

Recycling

12 comments

More or better recycling facilities in apartments was supported by several contributors. In around half the comments contributors noted that the onus should be on developers to provide facilities or space for this to occur at the time apartments are being constructed (e.g. rubbish/recycling chutes). Other comments simply called for the promotion of recycling amongst residents.

Waste

10 comments

Waste disposal was considered an issue for several contributors. Many of the comments suggested that a potential lack of knowledge of waste disposal was the issue for residents of apartments; to this end “waste introduction pack(s)” for residents were suggested. Other comments were about creating better systems in apartments to deal with waste; for a couple of contributors this was viewed as a management issue and suggested that building managers could report on “waste tonnages” with a view to making annual reductions.

General

8 comments

A small number of contributors had general comments. Better solutions, more rubbish collections, and shared facilities were mentioned in relation to waste from high-rise buildings.

A simple way to communicate how buildings and apartments are performing when it comes to waste management, e.g. star ratings.

ABOUT THE PROCESS

51 COMMENTS

A considerable number of contributors discussed the development of the Draft Waste and Resource Recovery Strategy or the public engagement process.

A moderate number sought more involvement with other councils or State or Federal Governments to develop strategies or infrastructure to manage waste and recover resources; this was discussed above in the *Suggested actions for CoM*.

The Draft Waste and Resource Recovery Strategy was discussed by several contributors. A few sought more specific details or projects within the Strategy.

While the strategy appears to be quite comprehensive, I would have preferred to see a more concrete set of recommendations right up-front and a less bureaucratic (ie more business-like) writing style.

Other comments on the Strategy included: the goal stated should be “a city that puts the environment as its top priority”; the figures should be clearer; CoM to include their definition of waste; include emotive images of the impact of waste and litter on wildlife; and, more publicisation of the Strategy to increase public engagement. One contributor provided a detailed discussion and breakdown of the Strategy; CoM can read the entirety of this submission to obtain its detail.

A small number of contributors sought systems that could be easily implemented by residents and communities; simplicity and functionality of the system was preferred.

The simpler the system is for the residents the better - do not rely on everyone sorting and washing their rubbish it doesn't work.

The online survey was referred to by a small number of contributors. A couple disapproved of the wording of question 3, while another wanted to be able to only select two options, rather than completing the list requirements. One wanted to be able to save their progress, and another thought the survey was a “great primer”.

Other comments regarding the process included: one contributor hoped good ideas were submitted; one contributor wanted to attend a public forum; opposition to privatisation; query how this Strategy is related to the “zero net emissions strategy”; and, “have it in break outs – in document”.

GENERAL SUPPORT

44 COMMENTS

A considerable number of contributors provided general supportive comments. Many of these generally stated that they supported CoM efforts to manage waste and resource recovery in a more efficient and sustainable manner; some added that a significant change, such as this Strategy, was required.

This is a fantastic initiative and I look forward to seeing some real, positive action from the Melbourne government.

Several stated that they supported all four priorities, with some noting that they are all equally important. A small number of contributors commended CoM on the Draft Waste and Resource Recovery Strategy; it was described as comprehensive and an “excellent starting point” or “first step”.

Please do all the above. We need to move quickly. Australia is choking in garbage and we need our government to support our wishes for a cleaner country and planet. Future generations and the amazing species of this world are relying on us to act now!

SPECIFIC IDEAS

38 COMMENTS

A considerable number of specific or broad ideas were made that did not directly refer to the priorities discussed above.

Increasing community involvement and engagement was thought to encourage the public or specific groups of the population to take more responsibility and action in reducing waste and improving resource recovery. A small number generally mentioned that more waste and resource recovery initiatives could provide more jobs or could be carried out by prisoners, the homeless, or other groups of people; one added that social services and systems could collaborate with this initiative.

A small number discussed the idea of waste hierarchy, where preferred initiatives or aspects of waste and resource recovery are prioritised over others. Most spoke generally, seeking more emphasis in

reducing disposal and refusing unsustainable options; however, one thought that implementing a waste hierarchy system could limit progress of all levels of the system.

We need to start implementing the Waste Hierarchy. Disposal should be the absolute last thing a business or individual should do with their waste.

A couple referenced the underground automated waste collection system planned for the Sunshine Coast and sought a similar initiative for Melbourne. Implementing rating systems, personal incentives via “green money”, and improved back-hauling systems were suggested each by a couple of contributors. Other specific ideas included: labelling cardboard products that also contain plastic; street lights that monitor when rubbish bins need to be emptied; information on where to dispose of chemicals; supporting the hemp industry; more “onsite micro solutions”; online information regarding waste from retailers; and, creating a “sustainability hub”.

3R Services submitted a couple of documents presenting specific ideas for public waste and resource recovery systems: Smart Cities Waste and Recycling Discussion Paper; and, ASCA Brochure. Both presented a new design of “smart bins” with their associated collection system.

Bin Clock contributed a detailed submission, presenting an idea to help residents remember which wheelie bin to put out for collection each week: a fridge-mounted alter system indicating which bin to put out on which day.

CIRCULAR ECONOMY

24 COMMENTS

A moderate number of contributors discussed the circular economy. Most comments were general and highlighted the importance of the circular economy in reducing waste and enhancing sustainability. A couple of contributors also stated the importance of engaging stakeholders and convincing businesses to adapt to a circular economy model. One individual highlighted the potential opportunities of a circular economy, suggesting that it could represent an extensive new job market.

I am concerned that there is too strong a reliance upon incinerating our waste to create energy when this should be the last option on the waste hierarchy. This will not promote behaviour change but rather reinforce current or higher rates of waste production. More effort needs to be spent on reducing waste and encouraging a circular economy. Councils and the Metropolitan Waste industry can support and facilitate this kind of innovation as well as provide education to reduce waste in the first place. We all need to value waste more and possibly financial incentives / taxes can play a role.

OUTSIDE CITY OF MELBOURNE

18 COMMENTS

A moderate number of contributors made general comments regarding areas outside of the City of Melbourne. Several generally asked CoM to seek ideas and solutions regarding waste and resource recovery from other cities, regions, or countries. Some made comments that CoM does not have to

reinvent the wheel, just research successful initiatives and systems in other locations; European countries were commonly referenced.

A small number asked for the Draft Waste and Resource Recovery Strategy to cover a broader area, rather than just the City of Melbourne. Some of these contributors noted that residential areas and suburbs need to be more sustainable, while others sought consistency of services throughout the greater Melbourne area or Victoria.

PRIORITY ONE: REDUCE, REUSE, RECYCLE, RECOVER

Summary of findings

Overall:

Comments in this section predominantly showed the opinion that waste management needs to emphasise waste minimisation, particularly measures to reduce the production of waste in the first instance. Single-use plastics and consumer packaging were most commonly identified as problematic.

Specific findings:

- **Reduce:** Considerable comment was focused on the reduction of plastic products, particularly single-use products. Items commonly identified as requiring non-waste or biodegradable alternatives were: coffee cups, straws and plastic cutlery. Reduction of single-use plastics and excessive product packaging (i.e. fruit and vegetables) and takeaway food/drink containers was sought. Commonly, the onus was placed on businesses to reduce product packaging and throw-away items at the point of sale.
- **Recycle:** Fundamentally, people wanted a locally managed, efficient, holistic approach to recycling, that returns positive outcomes (i.e. through the re-use of the recycled product and/or a considerable reduction in waste going to landfill). There was consistent support for the recycling of more material, particularly soft plastics, along with the development of more recycling facilities. More recycling guidance and support at facilities for public users, such as cleaning stations was wanted. Increased uptake and promotion of products made from recycled materials (infrastructure, benches from recycled plastic) was also sought.
- **Recover:** A very large majority of recover feedback discussed organic waste. Organic waste was considered both an under-utilised resource and an unnecessary burden on waste collection/transportation systems. Many comments discussed how organic waste can be better recovered, for example: management and collection of commercial (particularly food) waste; the provision of depositories for food and garden material to promote community composting; facilities for particular circumstances, such as apartment complexes. There was a small amount of comment on recovery of other waste, for example commercial building waste.
- **Reuse:** There was less comment on reuse, than the three topics above. Overall, contributors wanted waste to be diverted from the waste stream through continued use. Examples were: reusing plastic as road material; reusing food and beverage containers; repairing damaged goods – electrical appliances, whiteware and furniture. Incentivising reuse was also suggested.

Reduce, restrict, limit or ban single-use products 143 comments

General

There were a considerable number of non-specific comments from contributors on single-use plastic items. Most comments called for bans and restrictions on single-use plastics. Many comments were conveyed with a sense of urgency and passion that reductions need to be made soon. A small number of contributors stated they wanted bans on all non-recyclable or non-biodegradable plastic (e.g. polystyrene), suggesting that it should not be allowed to enter the market. This was a typical comment.

Banning single use lightweight plastic bags is very important and is already implemented. So happened within a very short time period. However it doesn't go far enough. All plastics that are not biodegradable, unrecoverable, and/or unrecyclable should be banned including the fibres that make our clothes.

Non-recyclable cups

The production and use of single-use plastic cups, particularly takeaway coffee cups and lids was a concern for a considerable number of contributors. Several of these discussed the possibility of banning or regulating single-use plastic cups due to their environmental impact. Contributors strongly favoured producing cups that are either biodegradable, compostable, or recyclable. In addition, they also wanted a greater push for BYO coffee cups and for businesses to offer incentives for customers who used them.

I think we need to either implement a way to recycle coffee cups, or advertise the fact that we can't currently recycle coffee cups. I see recycle bins full of coffee cups and it makes me sad. People want to do the right thing, I don't think many realize that they can't be recycled in Melbourne

Cutlery, crockery and straws

Single-use plastic items used for eating or drinking, such as cutlery, crockery or straws, were viewed unfavourably by contributors. A moderate number of contributors wanted tougher regulations on these products. Several contributors called for specific industries, such as hospitality, to change their practices and not supply this type of single-use products to consumers. Others suggested that the use of biodegradable take-away cutlery, crockery, and straws should be promoted.

Please assess how businesses serve the food. All around the city there are food courts where people can actually sit and have lunch, and all the restaurants still use disposable plates and cutlery. They shouldn't be allowed to do that. This is unnecessary waste! There are so many food courts I have been that don't do this and have systems in place to pick up and clean the dishes. Laws are needed.

Containers

A moderate number of contributors expressed concern over single-use plastic and polystyrene containers. They discussed: implementing government bans; encouraging businesses to introduce

additional charges on specific items to reduce consumption; and, promotion of biodegradable takeaway containers.

Businesses in the CBD minimising the sale of disposable containers/bags/cutlery etc for single purchases or adding extra charges for bags etc past 9pm

Plastic bottles

A moderate number of contributors addressed plastic bottles. Concerns were raised over their environmental impact and many stated that they wanted their availability reduced; to achieve this they sought bans on single-use plastic bottles. A small number of contributors advocated for CoM to provide more water fountains throughout the City to help encourage the public to refill their own bottles, rather than buy bottled water.

Banning sale of bottled water in shopping centres and forcing those building to provide free drinking facilities will reduce the amount of plastic that ends up in consumers hands

Reduce Packaging

131 comments

Business practices

A sizeable number of contributors stated that the CoM and businesses must be held accountable for the waste they produce and wanted these organisations to take practical steps to reduce their environmental impact. Contributors were dissatisfied with business practices that used single-use products or did not adequately separate landfill waste. They suggested: phasing out single-use items such as plastic cutlery, crockery, and cups and replacing them with reusable or biodegradable products; and, providing an organic collection service for businesses producing food waste.

Target businesses, as consumers we are not creating as much waste as industry

Consumers, businesses, & councils all need to take responsibility. There needs to be accountability in place at every step. From packaging items (businesses), buying items, discarding items, (consumers) & managing waste (councils/businesses)

Reduce plastic at point of sale

There was a strong desire for plastic packaging on goods to be reduced or eliminated by a substantial number of contributors. Specifically, a considerable number of contributors expressed a level of frustration at what was viewed excessive plastic packaging at point of sale. Others sought more biodegradable packaging to be used.

one of the keys priorities should be reducing the amount of packaging that is distributed in the first place.

Supermarkets were criticised by several contributors for overpackaging goods, and fruit and vegetables. This was a common comment.

Plastic packaging on fruits and vegetables needs to be reduced. Organic waste can be composted and reused but the plastic used is so wasteful and unnecessary

A small number of contributors specifically mentioned reducing the amount of non-recyclable or plastic bottles at the point of sale; primarily supermarkets were mentioned. Reduction of plastic bottles has been discussed elsewhere in this section.

Reduction should be the highest priority 109 comments

A sizeable number of contributors stated that the most important step to managing waste was to prioritise reduction or prevention of waste in the first place. For many this was viewed as a fundamental aspect of addressing the environmental impacts of waste.

I think reducing is so important and needs to be embedded in our culture

Contributors noted methods of waste reduction such as reducing consumption and reducing production of various waste streams. Contributors stated that reduction should take greater priority over reusing or recycling because it requires less energy and averts waste creation. A small number of contributors suggested that providing residents with smaller waste bins would encourage them to send less waste to landfill.

Reducing and recovering materials is the most essential factors. Especially office and construction materials. End users must be more responsible for their waste (eg: a sliding discount scale or end of year incentive bonus scheme for businesses in the City of Melbourne which reduce their landfill). Innovation incentives can be useful, but it doesn't change user behaviour and over-consumption, which is where the real problem lies.

Businesses taking an active role 46 comments

General

A moderate number of contributors were critical of businesses that did not take an active role in reducing their waste. They wanted businesses well known for producing significant waste to be held more accountable. Comments included: implementing enforceable standards on businesses that would require them to alter their practices; providing more support services for businesses (e.g. organic waste collection); and, rewarding businesses that use sustainable practices.

Businesses need to play a more important part with reducing waste. What would help is having colour coded waste bins in the offices to help separate waste. There should also be an education program letting people know what goes into general landfill and what can be recycled.

Barriers for businesses

During the retail and hospitality sector forum event, contributors were asked to list the barriers for reducing their waste. Businesses reported the following barriers: the high cost of waste separation; high cost of training staff to separate waste; a lack of incentives and uncertainty around the benefits of waste separation; a lack of education; a lack of support from landlords; and, a lack of space, or poor ability to retrofit older buildings to reduce waste.

Hard to know what to actually do, lack of clear instructions/info

Reduce or ban plastic bags

45 comments

Contributors stated that there was a need for greater restrictions on single-use plastic bags. A moderate number of contributors discussed regulations to either prohibit or restrict the use of plastic bags. Several contributors felt the onus was on large supermarket chains to implement bans or reduce the supply of plastic bags.

Big supermarket chains to actually ban plastic bags (not introduce a different plastic bag at 15c, there should be NO plastic bag option)

Several suggested that biodegradable bags, bin liners, and dog poo bags should be promoted to reduce the number of plastic bags. One contributor referenced BioGone, a company that produces biodegradable bags (including bin liners and dog poo bags) and suggested CoM use these.

Incentives to reduce

42 comments

A considerable number of contributors discussed a range of incentives to encourage both businesses and consumers to reduce waste. Several discussed the possibility of reducing rates or providing other financial incentives for residents or businesses who reduced their landfill waste each week. Several respondents wanted businesses to provide incentives for customers who reduced waste by supplying a bring your own (BYO) cup or container. Incentives were also sought for producers or businesses that reduced the amount of plastic packaging on certain products.

Incentives to encourage people to reduce takeaway food, bring their own reusable containers to get takeaway.

Reduce or avoid food waste

29 comments

Opportunities and barriers for businesses to reduce food waste

A moderate number of contributors highlighted both the potential opportunities and barriers for businesses taking part in schemes to help reduce food waste. Opportunities for businesses included: having a better reputation among the public; reducing their impact on the environment; and, improved amenity.

Increase reputation and attract more customers

Some contributors also highlighted potential barriers for businesses, which included: limited capacity to implement waste prevention to reduce food waste (due to business demands); and, time and cost barriers.

Time is money for businesses

General comments regarding food waste

Several contributors wanted better methods to both prevent and manage food waste. They suggested: better education around dealing with food waste; food sharing initiatives; better general management of food waste; and, the Council prioritisation of dealing with food waste.

post ads with alternatives to do with food scraps (freeze it, make vege stock etc.)

Specific ideas to reduce

28 comments

Specific ideas from contributors on methods to reduce waste were diverse. A couple discussed the potential to reduce consumption through creating tool libraries or “libraries of things” where individuals could borrow a range of items (tools, household appliances, etc.) rather than purchase them.

A Library of Things” - I lived in a town in the UK where this was so helpful and popular. I think it would do well here in southbank/inner city where lots of people live in small spaces. It really reduces the need to buy things that will be used once or twice, and is great for building community connection. Things I would love to borrow but not own: camping gear, esky, food processor, a muffin tin, canoe, board games, a drill, picnic basket and blanket, party decorations, umbrellas, dumbbells, juicer...

Let's do it!!!! Google Frome Library of Things

Contributors also discussed installing new infrastructure or products that would help reduce demand for single-use plastics. This included an idea from an individual to fund research into biodegradable plastics, while another suggested that CoM build more water fountains throughout the City, so citizens were able to refill reusable water bottles. Another individual discussed reducing demand for single-use plastics through creating “boomerang bags”.

Also how about more "Water Vending" machine, and water fountains to refill water bottle. I (trying to get into the habit), carry my own reusable water bottle on my regular commute and when I go into the city. My problem is finding a free or at least cheap as well as clean and suitable place to refill.

A small number of contributors discussed methods that may help to incentivise households to reduce waste. This included suggestions such as: a user pays scheme, where households pay for the weight of their rubbish; and, reducing the size of the general waste bins. It was expected that this would incentivise households to recycle.

*Weigh our waste and charge by weight, that will encourage reduced waste in land fill.
As per European countries.*

One detailed submission from Min Tech presented more sustainable construction materials, or “Eco Building Systems”, that aim to reduce the construction industry’s carbon and environmental footprint. CoM can see specific details and images within this submission.

Public rubbish-creation reduction

13 comments

There was concern from several contributors about the amount of waste and rubbish produced at large events. Contributors wanted CoM to lead the way and implement better waste management practices to help reduce litter and the number of single-use products sent to landfill. Contributors discussed: reducing the waste produced by events; providing only compostable cutlery, crockery, or cups; and, issuing fines for littering at events. This comment referred to Brisbane’s system.

Council should lead the way as they have done in Brisbane City council and Darebin and eliminate the use of single-use plastics in council operations, venues and events

Other comments

14 comments

Other comments that discussed reduction were varied and included: producing less paper in favour of digital media; providing more incentives for customers that brought reusable containers or ordered smaller portion sizes; and, reducing the regularity of waste collection to incentivise waste reduction. In addition, a few responses simply gave the website addresses of what looked to be recycling companies (see Appendix 3 for list of all websites provided).

RECYCLE

344 COMMENTS

Ability to recycle a broader range of materials 113 comments

A sizeable number of contributors wanted to be able to recycle a broader range of materials. In the majority of cases, contributors expressed their opinion in simple terms, such as “Introduce large recycling bins at the Transfer Stations”, or the following.

Capacity to recycle more items that are currently not being recycled.

Soft plastics were the most frequently cited material in need of recycling. Contributors were also in favour of the ability to recycle the following materials: hard plastics; dental hygiene products; cooking oil; electronic items; metals; “foam” products; clothing; batteries; and, polystyrene.

In addition, several wanted: recycling bins that accept a greater variety of recycled goods in the Central Business District and other public areas; and, more local Melbourne recycling facilities. A small number of contributors also believed that bins needed more instructions on what can or cannot be recycled to ensure that items were being appropriately recycled.

Making the recycling bin available for more materials, and/or offer more drop off locations for materials that can't be recycled or put into the normal bin - I'm thinking toothpaste tubes, make up containers, CLOTHES, shoes, electronic waste

In order to increase the capacity to deal with waste, contributors stated that it was necessary to have the facilities to deal with recyclable materials. Several wanted either: an expansion of the Degraves recycling hub; a higher number of facilities located throughout the City of Melbourne district, or more efficient facilities that had the capacity to deal with a broader range of materials. Frequently, these contributors sought facilities to process recyclables locally; some added that this could increase job opportunities.

There is a national urgency for actual recycling facilities to be built and run. I believe City of Melbourne should be pushing (alongside other councils), for state / federal funding to create these facilities so that all waste processing is completed in Australia. Spin it as an employment increase if needed.

Suggested ideas and initiatives

55 comments

A substantial number of contributors suggested ideas and initiatives regarding recycling.

More recycling bins were sought by a considerable number of contributors. Comments generally requested more recycling bins to increase sorting of recycling from waste or different types of recyclable materials. A moderate number sought more recycling bins in public places, usually requesting recycling bins next to general waste bins; one added that food scrap bins and washing stations could be adjacent to public recycling bins to reduce contaminated material going into recycling. A small number of these contributors expressed frustration over the removal of public recycling and/or rubbish bins in Melbourne City.

Increase number of recycling bins throughout CBD -- there should never be a rubbish bin without recycling.

A small number of contributors suggested modern public recycling bin systems, often referencing examples from Europe or the City of Gold Coast with underground recycling and waste systems.

A few suggested increasing popularity (through marketing) or usage of goods made from recycled materials, with one adding that these should be viewed as “premium product[s]”. A couple suggested that businesses that produce recyclable waste, such as supermarkets, should have recycling bins on their properties.

Other ideas regarding recycling included: promoting APCO’s packaging program; export recyclable material to willing countries; a method to compact soft plastics for easier storage and transportation; cleaner recycling streams to reduce contamination; bottle crushers to reduce volume of bottles; and, one individual suggested coffee cup recycling bins as they cannot be recycled with other recyclable materials and are a significant source of litter in Melbourne City.

Container deposit schemes

46 comments

A considerable number of contributors supported a container deposit scheme, similar to one implemented in South Australia. Specific ideas on how a container deposit scheme may be implemented mostly favoured a reverse vending machine where coins were given when a user deposited a plastic bottle.

A couple of contributors suggested vouchers (e.g. for movies, power credits, or train travel) or bus credit could be given instead of coins. A few contributors were opposed to a container deposit scheme, they believed that it may increase waste (e.g. by people searching kerbside recycling bins for containers worth a deposit fee and discarding remaining recyclable items to landfill) or encourage anti-social behaviour (e.g. encourage people to search through bins).

I think the state government needs to have the container deposit system like SA has, I still can't understand why we don't have this across the whole of Australia yet! Landfill should only be used as the last resort for waste that can't be reused, recycled, composted, etc.

General comments

31 comments

A considerable number of contributors spoke generally about recycling. The majority were supportive of recycling, or that more needed to be done or else that recycling initiatives should be more highly prioritised. Some referenced European examples of successful recycling schemes.

Prioritising recycling was important for a moderate number of contributors. Most comments were general and emphasised the importance of having an efficient and effective recycling system. Managing recycling waste was also discussed by two contributors. One suggested recyclable waste should be managed and processed onshore whereas the other suggested it was important to find new countries willing to accept recyclable waste.

Given that China has recently raised the standard of accepted imported recycling products, I think our main priority in Australia is to research and implement viable, onshore waste management processes. This should include soft plastics, as well as the current recycled materials accepted in Australian bins.

A few were opposed to aspects of recycling. A couple thought that improving recycling facilities and the ability to recycle materials was not the correct approach to reduce waste overall. Another was opposed to implementing recycling drop-off points, claiming that people required a lot of motivation to use these facilities.

People are lazy. Even if there were drop-off locations, would people go? People don't like even going to the bin areas in apartment buildings. Good luck with getting them to go to drop-off locations. What would be the incentive? Say it's better for the environment has been done and dusted and has not worked.

Incentives to recycle

28 comments

A moderate number of contributors discussed providing incentives to either businesses or residents to encourage more recycling. A small number wanted to reward businesses who used recyclable materials or provide subsidies to businesses to help them innovate and use more sustainable practices.

In addition, contributors were supportive of a container deposit scheme or reward programs, where recyclable materials could be returned to a specific location for a small cash refund.

One individual suggested gamification of a recycling system, where users can achieve badges or new levels the more they recycle. Another suggested increasing the fees to send waste to landfill and using the additional funds to subsidise recycling.

I think that the reimbursement programs would have the most impact, perhaps a small reimbursement per kg of clean soft plastics returned to a drop-off point, and things like tax incentives or rebates for companies if they use recycled plastic in their products.

Importance of management and processing

27 comments

A considerable number of contributors highlighted the importance of ensuring recycling processes were managed effectively. Contributors discussed implementing enforcement and regulation around recycling to ensure recycling centres were appropriately sorting waste streams. A few contributors also stated that waste should be processed and managed locally.

Important to also incorporate strategies to encourage the use of, and demand for, recycled products (eg making it cheaper to companies to make new products from recycled materials than from virgin materials)

Capacity for electronic waste recycling

20 comments

Several contributors raised the issue of electrical goods; there was consensus that there is a lack of suitable places to recycle these products. Several wanted more drop-off locations or facilities to deal with electronic waste such as batteries, handheld devices, accessories, computers and mobile phones. The lifespan of (some) appliances and computers was thought too short, resulting in unnecessary waste. One suggestion to address this follows:

Also, I would also recommend that manufacturers of electrical items should be made responsible for the entire lifecycle of their product. Consumers should be able to return an electrical appliance to the manufacturer once it is no longer needed. This will encourage manufacturers to ensure their product is fully and easily recyclable.

Barriers for businesses to recycle

17 comments

Contributors from the business community were asked to identify the barriers that prevented their businesses from recycling. A small number of contributors stated that cost was the most significant barrier to recycling. This included costs of: alternatives to plastic products; cost of recyclable materials; and, cost of collection services. Other barriers included: difficulties with building managers; lack of space for recycling facilities; a lack of access to facilities; bio-products not biodegrading; and, risk of damage to reusable products (e.g. plates or cups getting chipped).

Co-mingling

7 comments

A small number of contributors discussed co-mingling waste bins. A couple were opposed to co-mingled waste bins, believing that they encouraged error. One contributor provided general support. Contributors appeared to have a different understanding of co-mingled waste, with some suggesting that co-mingled waste should include everything except organic waste and others suggesting that it contained only various recyclable waste.

Co-mingled bins should go! Need multiple recycling bins – let the people sort and teach them how. Glass – Alum – Plastic and paper.

Waste Zero Australia sought co-mingled compactors to be more straightforward to use to ensure source-separation processes were more efficient.

RECOVER

312 COMMENTS

Organic waste

279 comments

Recovering resources from organic waste was discussed by a very large number of contributors. A large majority of these contributors expressed support for such strategies or sought more emphasis, action, or support from CoM in this area.

Food waste should also be a priority in all areas of the supply chain, from the farm down to landfill. Food waste should go back to the earth in a sustainable way that doesn't result in methane production.

Generating compost from food waste and/or reducing the volume of organic matter sent to landfill were the primary reasons contributors sought improved management of organic waste. Contributors most commonly discussed residential organic waste, often expressing the importance of providing options for those who live in inner city or apartment buildings where individual composting is challenging. A moderate number suggested organic waste could be used to generate compost for public parks or gardens, donated or sold to farms, or sold to fund waste and resource recovery actions; collaboration with neighbouring councils to implement systems and facilities, as well as processing organic waste into compost, was also suggested.

All food scraps should be collected from homes, restaurants and cafes. Also coffee grains should be included. such "rubbish" would make excellent compost for parks, gardens, etc etc

Commercial organic waste

A sizable number of contributors sought action to recover commercial organic waste or unusable food. Many expressed frustrations over the large volume of commercial food or organic waste (particularly from the hospitality industry) that is taken to landfill when it could be recovered, primarily to be converted into compost or donated.

...We produce a ridiculous amount of reusable waste in just one day, one restaurant.

Many sought additional or separate strategies for recovering commercial organic waste over those aimed at residential waste. A moderate number suggested that businesses should have compost bins or that organic drop-off facilities be set up in areas with a high density of hospitality or food-related businesses. Several others sought an improved organic waste collection service for businesses.

Melbourne could have mass composting facilities where businesses and individuals could send their food scraps if they don't have room for a compost/alternative on their property. Personal composting should be encouraged if they have the space and resources, though.

A substantial number of contributors described, or suggested initiatives aimed to recover usable food or organic waste. A moderate number sought recovery and distribution of edible food to organisations or charities serving those in need, such as the Foodbank. A couple disapproved of supermarkets throwing away a lot of produce that is not considered "perfect"; one added that the attitude of buying perfect produce needs to change.

More powers for businesses to donate additional food that is still 100% edible to Food banks and other NGOs.

Several contributors thought that more education and collaboration between CoM and businesses would divert more food waste from landfill to be converted to compost; ensuring that businesses understand best practices and have plans in place. Putting regulations in place and conducting audits

was suggested by several contributors, including a couple who thought an organic waste management audit could be conducted alongside other inspections.

So many teams of CoM visit businesses, better integration across services. Include waste mgmt investigations/educations/questions into the work done by other CoM teams like Health inspectors

Several sought more support for business initiatives and “zero-waste” hospitality businesses, with many particularly mentioning Joost Bakker’s café, Brothl. A small number of contributors sought more financial support from CoM to incentivise businesses to make the effort to responsibly dispose of their organic waste so that it can be recovered. A few contributors sought alternatives to reduce the volume of edible food thrown away in hospitality businesses by encouraging them to allow customers to take their uneaten food away with them or providing smaller meal sizes.

Other ideas included: promotion of technology to track food wastage in hospitality businesses, such as the “LeanPath food waste smart tracker” or weighing devices in bins; funding for incinerators in hospitality businesses; a “Pay-As-You-Feel” initiative in some supermarkets; distributing items such as oyster shells back into their original environment; and, compost bins near normal public rubbish bins in hospitality-business hotspots.

Residential compost bins or worm farms

A substantial number of contributors discussed individualised residential management of organic waste, primarily in terms of residential compost bins or worm farms. The majority of these contributors sought action to reduce the volume of organic waste going to landfill when it could be used to generate compost; dealing with organic waste at its source was considered the best option.

Processing organic waste into a useful end product is one of the easiest things residents can do. We should rather be encouraging people to process their own food scraps not providing them with another plastic bin (high in embodied energy) and transport miles (adding to carbon emissions) and processing/landfill.

Commonly, contributors requested that CoM encourage the use of or supply compost bins or worm farms to residents, along with education on how to correctly use the bins. Several contributors acknowledged the challenges faced by those residing in the inner city or apartments to responsibly manage their organic waste, so suggested that community or apartment gardens with compost systems could be encouraged or mandated. Some thought that this could promote community interaction and that residents (and their community gardens) would directly benefit from their composting. Several sought CoM support for products such as Bokashi bins, or “Compostas”, including providing locations to deposit the generated compost. HomeBiogas systems, which use organic waste as fuel for stove tops and also as liquid fertiliser; adding compost bins or “hungry bins” (worm farms) alongside public rubbish bins; and, CoM to subsidise worm farms and/or compost bins were also suggested.

Discount for people on compost bins/wormfarms if they are not already available through there councils. Some sort of reward/incentive (financial?) for creating less waste.

Residential collection service

A substantial number of contributors discussed the implementation of a residential organic waste collection service. The majority supported or sought a collection service so that organic waste could be converted into compost. Contributors primarily mentioned collection of organic waste bins, while a few suggested compostable bags.

A kitchen caddy (with cornstarch bag or similar) that can be used to collect food scraps (ie. lemon peel/bones/scraps) that can be collected separately in a Green Waste bin. The bags will be essential, to reduce fruit flies and bugs and stop the bins from stinking. This can then be turned into compost and reduce waste.

Several stated that a solution is needed for those whose living situation means they cannot compost organic waste, such as apartment or inner-city living. It was noted that for effective implementation and community participation of an organic waste management system, it needs to be as simple as possible; one added that dealing with organic waste needs to be as simple as throwing it into the normal waste bin.

As an apartment resident, I feel that there is a huge opportunity for reducing waste going to landfill through reducing the amount of food waste that ends up in bins. Having a bin just for food waste would help...

Several contributors expressed support of other councils or countries that already collect organic waste, with some adding that CoM is “lagging behind”. One contributor stated that an organic waste collection service would not require significant investment or technology due to CoM already collecting household waste.

A small number of contributors expressed concerns regarding an organic waste collection service, including: the cost; unpleasantness of having a food waste bin; and, lack of space for an extra bin.

Residential drop-off location

Support for residential organic waste drop-off facilities was expressed by a substantial number of contributors; these comments were typically simple in nature. Contributors favoured the idea of taking food waste to common collection points, to generate compost that would be either sold or distributed throughout public gardens.

Having collection points for kitchen scraps could help people keep them from going into general waste. I take my scraps to my community garden, but a more industrial composting solution would turn over scraps quicker.

Several contributors discussed having community gardens or parks as locations where residents could bring their organic waste; some noted that this could foster more community involvement and spirit, as well as encouraging residents to be more responsible and proactive regarding waste management. Examples of locations where contributors liked the organic waste drop-off system, such as Chippendale in Sydney or certain composting centres, were provided by a small number of contributors.

Composting is another issue. Residents need to be encouraged to compost their organic waste and one way of doing this is to promote community gardens where residents can be in contact with the growing process of their own leafy greens.

A small number of contributors opposed or expressed concerns about community organic waste drop-off facilities. These contributors did not think such facilities would be well utilised, and a more impacting action is required; one stated that they could not justify the time or effort to travel to common composting facilities, so preferred a collection service. A couple of contributors thought that the unpleasantness of taking waste to these facilities and the facilities themselves would reduce use.

Other comments and ideas

A moderate number of other comments and ideas for how to recover resources from organic waste were made. While some gave general examples of other areas where composting solutions worked, specific ideas included: putting strategies in place for people to donate unused food for homeless people or those in need; experimenting with new worm farming methods; community members should decide the best way to manage their own organic waste; providing public green waste composting bins for people to use when they are out (example of Monash University); using earthworms to decompose waste; using San Francisco's system as the "gold standard"; using television programs to educate residents about organic waste; generating biochar; companies making compostable nappies; paying by weight of waste was thought to increase usage of organic waste recovery systems; and, the following.

Social enterprise to employ people to collect food waste for reuse or composting/biofuel

Suggested recovery ideas

12 comments

Several ideas focusing on recovery were submitted. A small number suggested that recycled plastics or glass could be used for roading infrastructure (including tarmac, markings, and signs), with some adding that other countries have been experimenting with this approach. A few contributors thought that recycled plastics could be used in building materials, such as building blocks; some noted that this was being done in Mexico. Other recovery-focused ideas included: using recycled plastics in 3D printers; encourage goods to be made from recycled plastics; using recycled waste to generate products such as toilet paper or packaging; and, generating furniture from recycled products.

Many countries are looking at ways to use plastic for roads building and other infrastructure why is Melbourne not looking into this

Commercial and construction industries

8 comments

Several contributors commented on recovery of commercial or construction industry waste. These comments were broad, referring to waste from a wide range of industries. A couple of contributors thought that improving the understanding of what is in particular sector(s) or commercial waste, where it comes from, and the environmental impacts of it, before developing resource recovery strategies with businesses, was required.

Other comments included: recovery of useful building materials; reducing cost of repair compared to cost of new items; CoM to develop system to recover unused soap from accommodation businesses;

improved collection of hard waste so that it is recovered in better condition (for donation); and, initiatives for businesses to have their unwanted goods recovered and reused.

Other comments

13 comments

A moderate number of other broad comments referring to resource recovery from waste were provided. Overall, these contributors sought more implementation of systems and infrastructure or action from CoM to recover useful resources from waste. Many also sought reduction of environmental impacts and volume of waste going to landfill, or they expressed opposition to wasteful actions and attitudes. Some sought prioritisation of recovery over other initiatives, such as AWRRT that converts waste to energy or recycling. A few referenced international examples of successful recovery initiatives. One commented that rate payers would not mind paying a bit more if CoM introduced a “cleaner and greener waste and resource recovery strategy”. Another thought that resources in waste should be more highly valued.

make waste products into commodities (eg: sell your waste to a collector! Don't pay them to take it away)

REUSE

88 COMMENTS

Resale or repair

43 comments

Comments about the resale or reuse (through repair) of goods were made by a substantial number of contributors. Several contributors wanted to prevent hard rubbish (e.g. furniture, whiteware, electronics) from being sent to landfill; these goods were viewed as having the potential to be salvaged. Repair centres or “repair cafés” could be established to repair products if this were feasible. One contributor believed that these centres could be staffed by volunteers who could share their expertise with the community. Contributors believed that this would help to foster more sustainable living.

Recycling and repurposing of larger waste items such as white goods and computer should also be a priority

A small number of contributors, including one substantial submission from the Kensington Community Network (KCM), expressed support for the development of the Kensington Repair Hub. This Hub would be a location where tools, facilities, and teachers are present to aid the public or groups in repairing damaged goods; mentoring programs to educate people, particularly youth, how to repair and reuse machinery, electronic equipment, and other goods would also be run here. This initiative was supported as it reduces hard waste going to landfill, reduces consumerism, provides vulnerable communities with repairing skills, and improves “repair economy”. The KCN requested funds to conduct a feasibility study for the Kensington Repair Hub.

Reusing waste

34 comments

General

Contributors expressed the need to reuse items instead of throwing them away into general waste or recycling bins; this was thought to reduce landfill waste volumes. Support and encouragement of businesses and residents to reuse items was commonly sought by these contributors; some explained

that promotion of reuse or having facilities and services available was required. Encouragement of “upcycling” was also noted.

Food and beverage containers

Several contributors stated that they want businesses and companies to reuse containers and bottles (e.g. glass jars or bottles) that are sent to recycling facilities. They also wanted businesses to provide incentives such as discounts for customers who brought their own reusable cups or containers to their outlets.

Bring back REUSED glass bottles and jars. All that needs to be done to them is to have them washed and sent back to the factories where food is packaged. The only costs will be transport, and washing facilities. Glass jars and their metal lids will last hundreds of times and are very safe and hygienic to reuse for food storage many many times.

Specific examples of reuse

A small number of contributors discussed the different possibilities of turning different waste streams into useful products. Examples included: sewing groups to make reusable bags from donated materials; and, increasing the market for reuse of large furniture, whiteware items, or computers.

Incentives to reuse

7 comments

Contributors also sought incentives that supported facilities for repairing and reusing. Commonly discussed was a repair café or hub where consumers could return faulty goods to be repaired rather than sending them to landfill. A few contributors stated that these should be subsidised.

Divert landfill by advocating repair cafes and recycling hubs and providing financial support for them.

Suggested ideas

4 comments

A small number of contributors suggested ideas to promote reuse of products. These were: “community swap” meetings; “female-orientated education” to encourage reuse of clothing; encourage washing plastic goods to reuse them and develop legislation to make businesses use packaging that can be reused (e.g. Tupperware-type containers); and, encourage businesses to reuse packaging and boxes for transportation of goods.

GENERAL SUPPORT

26 COMMENTS

A moderate number of contributors generally expressed support for Priority 1 or initiatives within this Priority. Overall, these contributors supported efforts, infrastructure, and services to encourage reducing, reusing, recycling and recovering resources; some thought that the implementation of more facilities and services in this area would create jobs.

I read a quote by Pete Seeger, "If it can't be reduced, reused, repaired, rebuilt, refinished, resold, recycled or composted, then it should be restricted, designed or

removed from production." This is absolutely the fact of it. We need genuine leadership on this.

Reducing the volume of waste going to landfill, particularly if it contains valuable resources, was the primary concern for these contributors. Some sought more effort from CoM to put initiatives in place (such as the actions described under Priority 1), while others thought that Melbourne residents need to be more responsible for their waste.

Diverting waste from landfill is priority. If that means more bins on the street and relying on residents to sort their waste then so be it.

OTHER COMMENTS

7 COMMENTS

Other comments relating to Priority 1, or generally regarding reducing, reusing, recycling, or recovering waste and resources were made by a small number of contributors. Comments included: storage for more bins for businesses; management of waste on-site; more options for public rubbish disposal and collection services; more sustainability-focused waste and resource recovery facilities for apartment buildings; use of re-usable plastic crates to transport goods into and out of Melbourne to reduce cardboard box use; and, one thought that more knowledge regarding sector and industry waste, including how much waste and where it comes from, was required prior to developing management strategies for businesses.

PRIORITY TWO: DEVELOPING LANDFILL ALTERNATIVES

Summary of findings

Overall:

Development of landfill alternatives were typically discussed favourably by a considerable number of contributors. Overall, these comments were generally supportive or suggestive in nature, seeking environmentally sustainable methods to minimise waste to landfill and recover useful resources.

The most commonly discussed alternative waste and resource recovery technology (AWRRT) was a waste to energy system. While many were in favour of developing this technology and/or system to reduce the volume of waste going to landfill, others expressed concerns that this was not an environmentally sustainable option (due to pollution of burning waste and discouraging reduction of waste generation).

A small number of contributors supported waste sorting AWRRT, while others suggested other ideas to divert waste going to landfill.

Specific findings:

- Value was seen in harnessing the energy within waste into a useable form.
- It was acknowledged that AWRRT, such as those that produce energy from waste, would require innovative and novel approaches.
- Specific suggestions to develop landfill alternatives included using elements of waste as fill for roading and using green waste for agricultural purposes.

AWRRT

68 COMMENTS

AWRRT Waste to Energy

61 comments

A considerable number of contributors expressed support for AWRRT (alternative waste and resource recovery technology). Converting waste into a valuable resource and diverting it from landfill was the primary reason for supporting this initiative. Contributors primarily mentioned burning waste as a method of energy generation, while a couple discussed anaerobic digestion. Several made note of successful international examples of using waste to generate energy, European countries were most commonly mentioned. Some contributors felt that Australia was lagging behind other countries' efforts to reuse landfill waste to produce energy. One suggested that more research should be done into the efficiency of methane-converting facilities.

Building 0 waste facility for destruction of land field garbage and accumulation of energy, similar to one in Norway! Number one priority!

Concerns regarding waste to energy AWRRT were raised by a moderate number of contributors. Some supported efforts to reduce landfill volume; however, they sought reassurances that any implemented

waste to energy system produced “clean” or “green” energy. Others were strongly opposed to this initiative as they did not consider it a long-term environmentally sustainable or recovery-efficient option; reduced public incentive to responsibly manage waste was noted. A couple commented on the negative impacts of a waste-to-energy facility on residential amenity, while others noted that it is being phased out in other countries.

Please don't turn waste to energy through incineration, it will increase air pollutants and add mercury into the toxic mix. It is not a path for sustainability, it is a short term solution to a long term problem.

AWRRT Sorting

7 comments

A small number of contributors discussed sorting AWRRT. Accurately sorting waste, either prior to collection or in processing facilities, was thought to reduce the volume of recyclable material being sent to landfill. One suggestion was to distribute rubbish bins equipped to sort waste into distinct compartments; another noted that this could increase rubbish bin numbers, but that more waste would be recycled. Sending sorted recyclable waste overseas was suggested by an individual. Having a separate disposal system for hazardous materials was suggested once.

OTHER COMMENTS

12 COMMENTS

General support

6 comments

A small number of contributors expressed general support for efforts to develop landfill alternatives. Some sought more prioritisation or proactive actions to reduce the volume of waste and reusable resources going to landfills.

I think this is one area where government really is going to have to take the lead - individual efforts can only do so much within existing infrastructure and options for waste reduction/disposal. To this end the development of landfill alternatives and better local recycling options (including for organic waste) should take priority.

New ideas

3 comments

Alternative ideas to reduce reusable resources going to landfill were provided by a small number of contributors. A variety of ideas were suggested, including: generating fuel from coffee waste; use method of diverting food from landfill like City of Yarra in 2013-14 (no specifics given); and, promotion of food waste smart trackers within hospitality businesses, such as “LeanPath”.

LeanPath food waste smart tracker (www.leanpath.com). Is used by businesses including PwC at Souhbank and Monash Health to help prevent food waste. Novotel Brisbane has used LeanPath to reduce food costs by 80% by preventing pre-consumer food waste

Other concerns

3 comments

Concerns regarding landfill alternatives were expressed by a few contributors, including: consideration of processing plants’ environmental impacts should be included in decision-making processes; odour and vermin issues associated with food drop-off collection points; and, concern that large processing facilities just support big businesses.

PRIORITY THREE: STIMULATING INNOVATION

Summary of findings

Overall:

Contributors had faith in innovative ideas being a solution to waste problems in future, however, these comments were relatively few compared to other topics.

Food waste from hospitality and commercial food production was viewed as problematic. Unused food was viewed as a resource, the distribution of which was perceived to reduce waste to landfill.

Specific findings:

- Applications (apps) were viewed as an innovative way to facilitate the distribution of food, and other items of potential use to others.
- Technological innovations were suggested, as well discrete ideas such as large-scale composting, the dehydration of organic waste.
- A considerable number of contributors provided specific innovative ideas regarding waste and resource recovery.

SPECIFIC IDEAS

33 COMMENTS

Hospitality and food waste

9 comments

Several contributors shared their innovative ideas regarding the hospitality industry and commercial food waste. A small number of contributors suggested mobile phone apps to notify people when businesses had excess food to be sold cheaply, identify businesses that are waste-responsible, or to assist staff to monitor kitchen waste. Other ideas included: edible utensils; small-scale solution of dehydrators for hospitality businesses; deposit system of re-usable takeaway bags, containers, and utensils for events and businesses; and, support for businesses that use unwanted food (e.g. soup kitchens using bones and vegetables from other restaurants).

I mentioned to our CoM table rep.....open air events held at Fed Square + Birrarung Marr sidewalk could benefit from having reusable takeaway bags and attempt to replace plastic serving ie cutlery plates and take home chopsticks. They pay a stall holder fee so maybe a portion of the fee could go into a fund and CoM subsidise the remanies monies to buy in bulk and distribute to foodies each time an event is on. The foodie win by not having the expense of purchasing plastics and helps our environment by reducing plastic waste

Technology

7 comments

Innovative ideas utilising modern technology were provided by a small number of contributors. A few ideas utilised 3D printers and/or discussed substrate options, including: plastic bottles; and, cement.

Revise the prescriptive standards on structural cement to allow chemistries that can stably entomb incinerator ash, such as calcium Sulpho aluminate to ettringite, which would also create a local supply for 3D printing cement.

A couple made suggestions regarding apps or websites; one suggested an app to connect people and businesses to reuse items, while the other proposed a website to direct residents to locations where they could dispose of their non-recyclable waste. Note that a small number discussed apps relevant to the hospitality industry, which are discussed above.

A suggestion for a machine that scans deposited plastic bottles and remakes them into new bottles was made, while another generally sought improved use of technology in waste recovery efforts.

Organic waste

7 comments

Innovative ideas to reduce or reuse organic waste were suggested by a small number of contributors. These ideas included: use of organic waste dehydrators; large scale composting facilities to service city gardens; fuel generation from coffee waste; black soldier fly larvae to process food waste and then be used as stock feed; crop food waste to be better utilised (e.g. human or pet food); and, CoM to provide information and products on their website to help public self-manage their food waste.

Other ideas

10 comments

Several other innovative ideas were submitted.

A small number mentioned large-scale innovative initiatives, including: composting facilities; thermal or solar glass recycling plant; use of (suggested) waste tax to build a large recycling facility; and, one sought small-scale facilities as well as large-scale ones.

An individual suggested looking for ideas outside of typical government or council models for ideas, while another thought “inter-council competition” would produce innovative solutions.

Other ideas included: community projects to reuse commonly recycled products (e.g. weather shelters or community glass houses from plastic bottles); use of greener alternatives such as “paper, glass, and hemp”; and, recycling deposits at schools of unusual recyclable items (e.g. toothpaste tubes).

GENERAL SUPPORT

15 COMMENTS

Support for stimulating innovation was expressed by a moderate number of contributors. Encouraging innovation of solutions to waste and resource recovery was viewed positively and as a forward-thinking, sustainable approach.

If Melbourne city wants to be a global leader and not a global follower in waste management, than the most important thing is innovation, we need to do something

that is brand new in the waste management industry in a scalable fashion such that others can follow

Some thought that stimulating innovation and implementation of these ideas could be a community-minded effort, while a few noted that this could create jobs. A small number sought more emphasis on innovation regarding waste and resource recovery efforts or encouragement of the community to get involved with providing and implementing new ideas. One sought Melbourne to be a leader of innovation regarding waste and resource recovery strategies.

This is a real opportunity for the state of Victoria to lead the way and come up with innovative solutions that provide real benefits for the environment and also encourages innovation, entrepreneurial spirit and creates jobs.

FUNDING INNOVATION

15 COMMENTS

A moderate number of contributors suggested providing funds to stimulate innovation of new ideas or methods to manage waste and resource recovery. Many suggested seed funding businesses or education providers to encourage the innovation, implementation, and upscaling of new ideas; this was considered a proactive approach. Investment to support innovation of methods to recycle or reuse plastic was commonly sought by these contributors.

There are many innovative groups that could revolutionise the way we treat waste, but no-one is willing to gamble on them. I would like to see a open and merit-based assessment of proposed solutions, with funding \$\$\$ going to the ideas and skillsets that are truly radical (rather than the 'least risky')

A couple of contributors suggested that more provisions for innovative research of waste and resource recovery strategies should be made available. Another couple specifically requested that financial support to stimulate innovation should come from CoM or the government.

QUESTION INVESTMENT

7 COMMENTS

A small number of contributors questioned the need for (or investment in) stimulating innovation around waste and resource recovery. One thought that creative designs would “occur naturally” if support in the form of infrastructure and services was in place. Comments from contributors included: a couple who questioned the monitoring of financial support for businesses and the support of innovation for sustainability purposes; one who sought innovation outside of classic models, forums, and action plans (that supporting innovation is good, but may not be enough to change consumerism and resident behaviour); and, one who made the following comment.

In regards to "Stimulating innovation by providing financial support for businesses, social enterprises and community groups". I think the council would be better off by just installing better systems for waste management, particularly food waste. Rather than paying people to do it for them.

PRIORITY FOUR: REDUCING AMENITY IMPACTS FROM WASTE COLLECTION

Summary of findings

Overall:

There were amenity concerns about waste collection processes; these were mainly in the form of the unsightly or obstructive nature of bins, and noise from collection vehicles. Only a few contributors expressed an opinion to the contrary.

Larger waste bins (i.e. skips) were identified as unsightly when left unemptied for extended periods, and in some cases too large for the space they occupied.

Specific findings:

- Full waste bins, and bins obstructing business operations were viewed unfavourably.
- Waste collection vehicles operating within set time frames was desired to minimise noise.

AMENITY

20 COMMENTS

Negative impacts on amenity

16 comments

A moderate number of contributors expressed frustration over the impacts of waste or associated infrastructure on residential amenity. A small number noted that the noise from collection vehicles driving on residential roads or collecting waste was a “big problem”; particularly, noise at early hours of the morning or from multiple collection companies over the course of one day.

Personally as a resident in the CBD I find the noise from the collection of waste to be an issue along with overflowing bins and waste from collection vehicles. The noise generated from collection may be difficult to improve on, particularly the noisy glass in recycling collection

Unsightly rubbish bins were an issue for a small number of contributors, primarily due to them overflowing, or due to their positioning on the footpath or in front of retail businesses, attracting vermin, or graffiti. Other impacts on amenity caused by waste, or its collection or associated infrastructure, included: volume of waste on Punch Lane due to the increasing number of business; waste fluid from bins not being collected and spilling onto road and into drains (reported as an amenity and environmental concern); amenity issues at Dynon Road waste disposal complex; cardboard boxes on Flinders Lane; and, the possibility of odour and vermin issues at food waste collection points.

Amenity is not a problem

4 comments

A small number of contributors did not think that waste-related impacts on amenity were a problem. Reducing the environmental burden of waste and promoting responsible waste management were

more important for a couple of contributors over amenity. Another contributor stated that noise was just part of city living.

I don't really get the fourth priority? It will certainly make living more convenient, but I don't see how it will make people want to play a greater role in being environmentally friendly. I think a big part of seeing the bins on the street, and seeing the trucks come through the neighbourhood is a huge reminder about our waste and our responsibility to be environmental. ...

NEW IDEAS

16 COMMENTS

Bins and compactors

9 comments

A small number of contributors offered ideas regarding waste bins/skips or compactors. A couple considered compactor bins to reduce amenity; one suggested smaller compactor bins in laneways, while another suggested underground bins. Improved bin ownership accountability and ownership was sought by a couple of contributors. Regarding on-street bins, one sought more consultation with business owners about placement of bins and another requested locked bins. Other ideas included: bins for cardboard on Flinders Lane; and, improved coordination with "Planning around storing bins onsite".

Technology

3 comments

A few comments suggested implementing technological approaches to waste and resource recovery management. These comments were: trucks with "smart-sensor technology", making them quieter, reducing contamination and escaping litter, or require someone to move bins into place; "smart bins", which can put themselves away after being emptied; and, the following comment.

Use of an app as alert system to collect waste. Employ local unemployed people and equip them with bikes

Other ideas

4 comments

Other ideas included: promoting residents to manage their organic waste to reduce the number of collection trucks; to enforce local laws, introduce more CCTV; and collaboration with "QVM redevelopment" to reduce waste impacts.

COLLECTION

15 COMMENTS

A moderate number of contributors discussed the process of waste collection in terms of amenity. Many reported issues with collection vehicles: noise produced by vehicles driving and collecting waste, both in terms of frequency and time of the day or night; and, environmental impacts caused pollutants released from poor vehicle upkeep or unsecured litter.

The trucks are old, polluting, and incredibly noisy. Ruining the dining experience for all those in the area.

To reduce the negative impacts on residential amenity, and to improve collection efficiency, a small number supported efforts to collaborate or coordinate collection services. Consolidation of waste and/or recycling collection companies to reduce the number of vehicles and collection occurrences was requested; consolidation of collection services was sought for high-rise apartments and the point was made that this should occur at a “reasonable” hour.

by encouraging and combining waste and recycling services within high rise developments - hopefully this also means collection of waste can be coordinated to minimise number of separate service providers collecting waste at all different times and reducing noise from waste collection companies

To improve collection, a few provided some suggestions, including: zones for collection; reducing frequency of collection to increase residential responsibility of their waste; and, improved waste collection system for businesses managed by CoM.

GENERAL SUPPORT

7 COMMENTS

Comments providing a positive sentiment towards efforts to reduce negative impacts of waste on amenity, or expressing support for Priority four, were made by a small number of contributors. These comments were general and simple in nature, supporting this Priority. One contributor sought more effort to reduce the impact of waste and resource recovery on amenity.

Appendices

APPENDIX 1: ANALYSIS OF CONTRIBUTORS' RESPONSES, FROM CONNECTION TO MELBOURNE GROUP PERSPECTIVES

Aim of this analysis: To determine if contributors with different connections to Melbourne commented on certain priorities or aspects of the Draft Strategy, differently.

Note: only respondents who completed the Participate Melbourne online survey are included within this analysis. Each respondent could select multiple connections – therefore there are more connections than number of online survey contributors.

SUMMARY

The overall aim of this analysis was to determine if the connection-to-Melbourne groups discussed each Priority or aspects of Priority 1 differently.

Key findings were:

- Contributors most common connection to Melbourne was living there, followed by working in or visiting Melbourne.
- Proportion of comments on each priority was typically consistent between groups.
- Priority 1 was the priority most commonly commented on by all groups.
- Proportion of comments on Priority 1 topics was typically consistent between groups.

COMPOSITION OF ONLINE SURVEY CONTRIBUTORS

Contributors who completed the Participate Melbourne survey were asked: What is your connection to Melbourne?

Contributors' answers to this question were used to classify contributors into connection-to-Melbourne groups, which were then used to complete this analysis.

Results

Figure 7 presents the Participate Melbourne Website online survey contributors' connection to Melbourne; these will be referred to as connection-to-Melbourne groups throughout this section.

Note: This figure has also been presented as Figure 1, but has been repeated here as the data directly relates to the rest of the analysis below and is useful to visualise when interpreting this data and analysis.

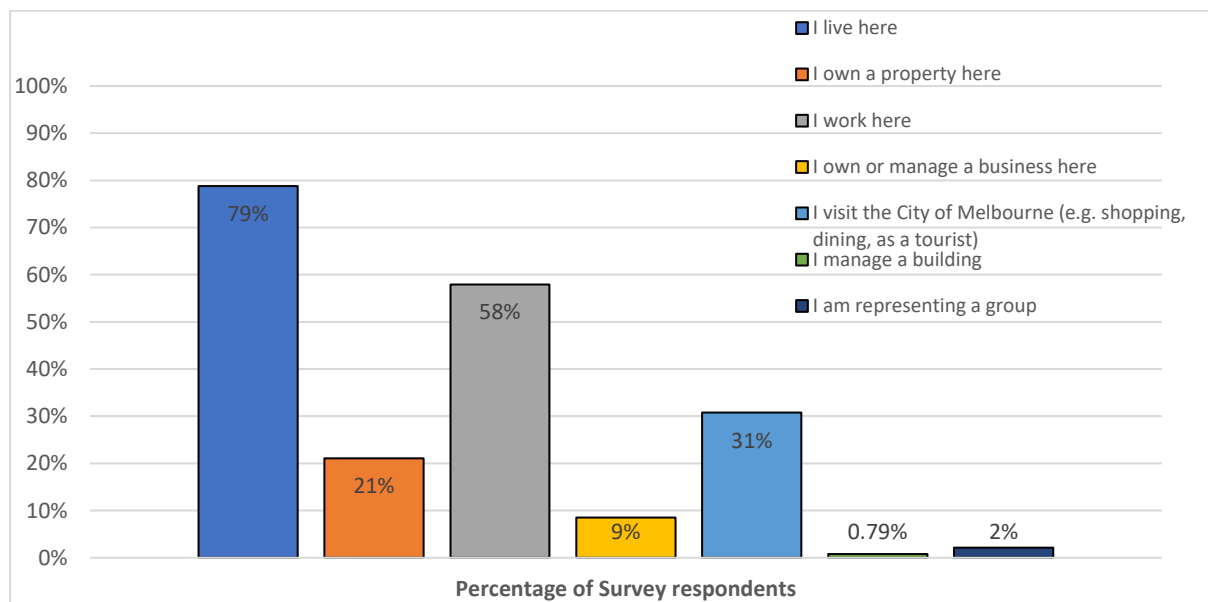


Figure 7: Repeated figure of contributors' connection to Melbourne

The bar chart displays the percentages of online survey contributors' connection(s) to Melbourne. Note that respondents could have more than one connection to Melbourne. Key (right) indicates the colour of each connection type. Percentage of each connection is displayed in the corresponding bar; percentages rounded to nearest whole number.

Analysis

Contributors' connection(s) to Melbourne:

- **Contributors' most common connection to Melbourne:**
 - 79% of contributors (702) live in Melbourne.
 - 58% of contributors (516) work in Melbourne.
 - 31% of contributors (274) visit Melbourne.
- **Contributors' least common connection to Melbourne:**
 - 1% of contributors (7) manage a building in Melbourne.
 - 2% of contributors (19) represented a group from Melbourne.

WHAT EACH GROUP DISCUSSED

To determine if there were any differences in what each connection-to-Melbourne group discussed, the number of comments made on each topic were counted, proportional to the size of each group.

Results

The number of comments made by each connection-to-Melbourne group on each Priority were counted; Figure 8 presents the number of comments made, while Figure 9 shows the proportion of comments made on each Priority, by each connection-to-Melbourne group.

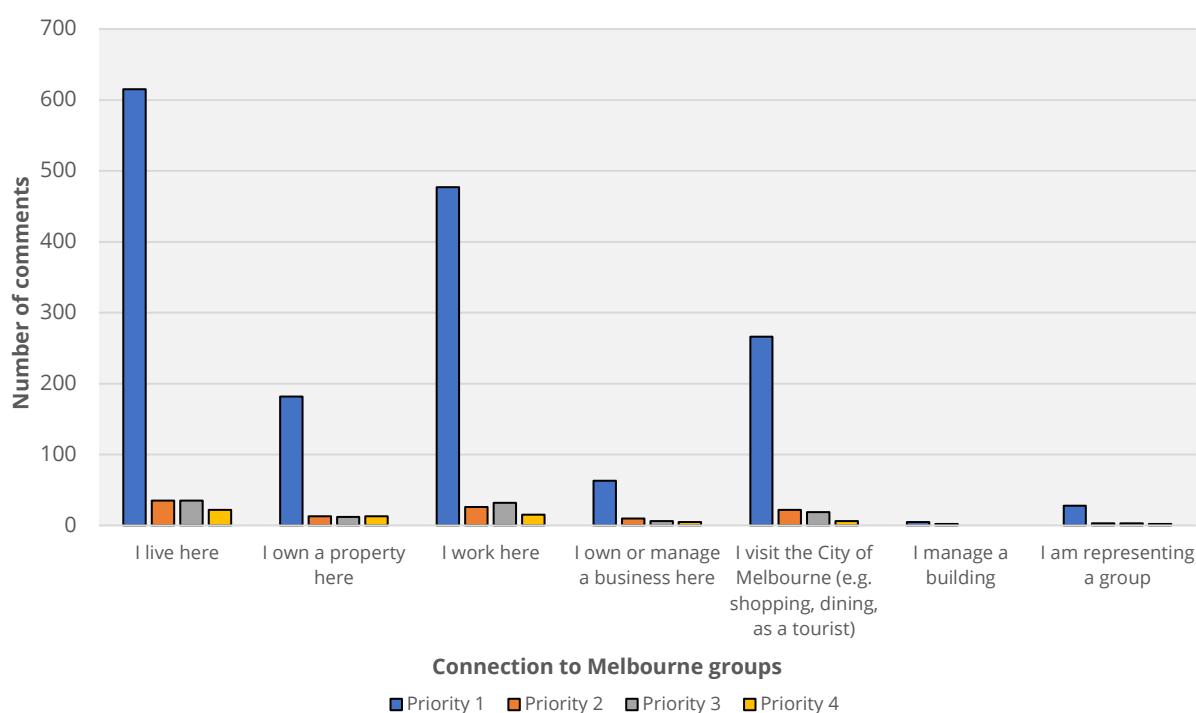


Figure 8: Number of comments on each priority per connection-to-Melbourne group

Number of comments (y-axis) regarding each Priority per connection-to-Melbourne group (x-axis) is displayed; colour key (below) indicates priorities.

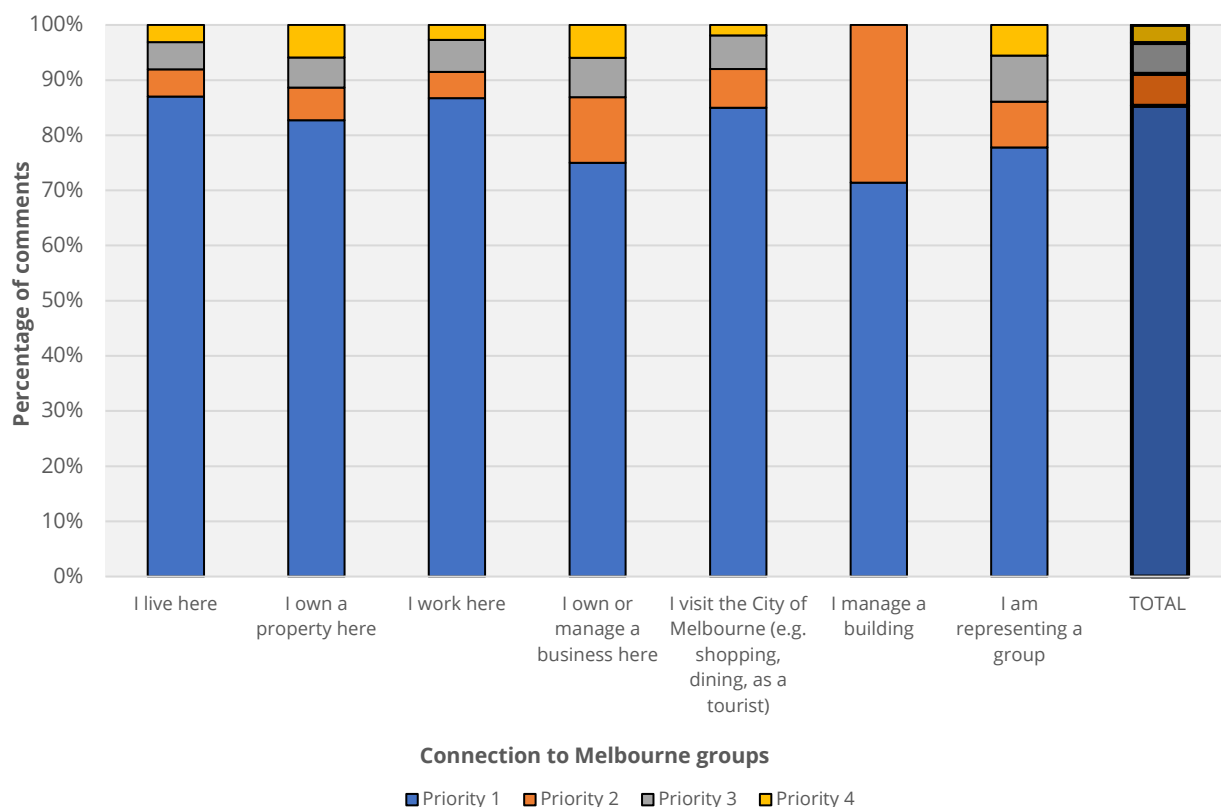


Figure 9: Proportions of comments on priorities were consistent across connection-to-Melbourne groups

Percentage of comments (y-axis) made on each Priority by each connection-to-Melbourne group (x-axis); colour key (below) indicates Priority. The percentages of all comments from all groups is labelled "TOTAL" (darkened bar).

Analysis

Predictably, the number of comments made by larger connection-to-Melbourne groups (Figure 1 and 7) made more comments than other groups; for example, those that live in Melbourne made more comments than those who own property in Melbourne (Figure 8).

All groups most commonly commented on Priority 1, with at least 70% of Priority comments made by every group being on Priority 1. Priorities 2-4 were discussed significantly less by all groups (all received 35 comments or fewer).

Overall, there were few differences in the proportion of comments made by each group on each Priority (figure 9). One difference observed was in the groups "I own or manage a business here" and "I manage a building", which had higher proportions of comments on Priority 2 (Developing landfill alternatives) compared to other groups. However, due to the small number of contributors from these groups (Figure 1 and 7), caution is advised regarding this finding.

DISCUSSION OF PRIORITY 1 BY GROUPS

Due to the large number of comments made on Priority 1 by all connection-to-Melbourne groups, further analysis was conducted to identify if any groups made proportionally more comments on certain topics within Priority 1, compared to other groups, such as: reduce; reuse; recycle, recover; general supportive comments; and, other comments were determined.

Results

The number of comments made on each of Priority 1 topic by each connection-to-Melbourne group was identified (Figure 10), after which, the proportion of comments made on each topic by each group was determined (Figure 11).

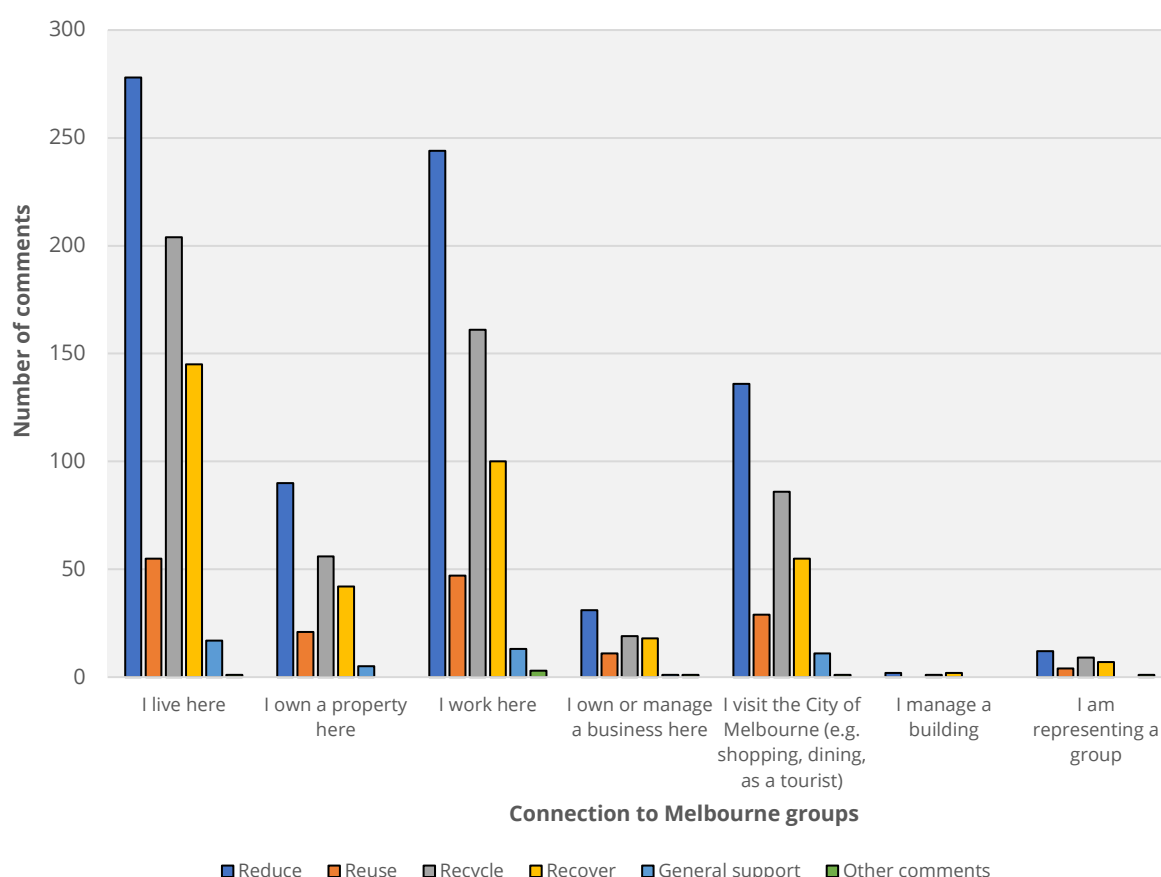


Figure 10: Number of comments made by each group on priority 1 topics

Number of comments (y-axis) made by each connection-to-Melbourne group (x-axis) on Priority 1 topics; colour key (below chart) corresponds to topics of Priority 1.

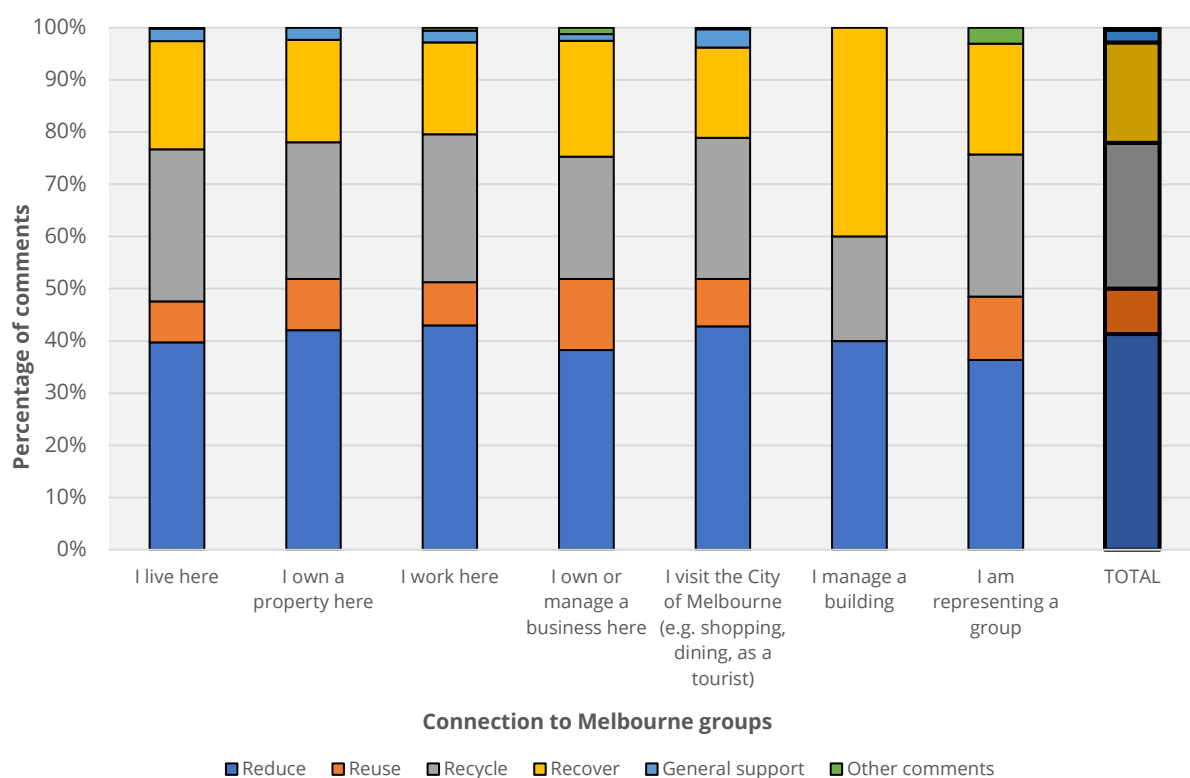


Figure 11: Topics of priority 1 were consistently commented on by connection-to-Melbourne groups

Percentage of comments (y-axis) made by each connection-to-Melbourne group (x-axis) on topics within Priority 1; colour key (below chart) indicates topics. The percentages of all comments from all groups is labelled "TOTAL" (darkened bar).

Analysis

Across all connection-to-Melbourne groups, the most commonly discussed topic was Reduce, followed by Recycle and then Recover; this was consistent with the amount of discussion on each topic contained in the body of the report.

The proportions of comments made by each group on Priority 1 topics was typically consistent between groups and compared to the total (all groups combined) (Figure 11). One exception was the "I manage a building" group, which had a higher proportion of comments on Recover compared to other groups; however, due to the small number of contributors within this group (7 contributors; Figure 1 and 7), this finding should be considered cautiously.

CONCLUSION

Contributors who completed the Participate Melbourne online survey were asked what their connection to Melbourne was. This information was used to determine if contributors with different connections to Melbourne commented on different aspects of the Draft Waste and Resource Recovery Strategy, or commented more or less on particular topics.

The majority of Participate Melbourne online survey contributors lived (79%), worked (58%), or visited (31%) Melbourne. Very few contributors connected to Melbourne through managing a building (1%) or represented a group from Melbourne (2%).

As expected, more comments were provided by larger connection-to-Melbourne groups than smaller groups. Priority 1 was most commonly discussed by all groups; at least 70% of comments made by each group on a Priority discussed Priority 1 topics. Due to this, the number of comments made on Priority 1 topics by each group was investigated to find out if different topics within Priority 1 were discussed in different amounts by different connection-to-Melbourne groups. 'Reduce' was most commonly discussed by all groups, followed by 'Recycle' and then 'Recover'. These findings were consistent with the level of discussion in the body of the report.

The proportion of comments made on the Priorities and Priority 1 topics were consistent between groups. This indicates that contributors with different connections to Melbourne discussed particular Priorities and topics within Priority 1 similarly.

APPENDIX 2: IMPORTANCE OF PRIORITIES AND RANKING OF INITIATIVES, PRESENTED AS TABLES

ANALYSIS OF OPTION SELECTION QUESTIONS

The tables below present the data used to generate various figures within the body of the report; Table 1 presents data of Figure 2, and Tables 2 and 3 present data of Figures 3-6.

Table 1: Counts and percentages of ranked importance of each Priority

	Number of responses				Percentage of responses			
Importance rating ⁺	Priority 1: Reducing, reusing, recycling, and recovering waste	Priority 2: Developing landfill alternatives	Priority 3: Stimulating innovation	Priority 4: Reducing amenity impacts from waste collection	Priority 1: Reducing, reusing, recycling, and recovering waste	Priority 2: Developing landfill alternatives	Priority 3: Stimulating innovation	Priority 4: Reducing amenity impacts from waste collection
5	829	711	517	370	93%	80%	58%	42%
4	53	110	199	173	6%	12%	22%	19%
3	8	48	128	187	0.9%	5%	14%	21%
2	0	10	35	103	0.0%	1%	4%	12%
1	1	12	12	58	0.1%	1%	1%	7%
TOTAL	891	891	891	891	100%	99%*	99%*	101%*
Footnotes: ⁺ Number 5 ranking represents the most important Priority to number 1 being least important Priority. [*] Percentages displayed do not add to 100% due to rounding to whole numbers.								

Table 2: Percentages of each ranking for each initiative

	1	2	3	4	5	6	7	8	9	TOTAL*
A container deposit program for Victoria (e.g. 10 cents for bottles)	143	101	114	100	87	96	68	76	103	888
A reuse and repair centre	71	79	105	121	130	134	108	65	77	890
A third bin, for food scraps only	97	121	83	76	70	82	105	143	112	889
A third bin, for food scraps and garden waste	140	165	99	93	74	76	91	94	56	888
Better recycling systems and education for apartment buildings	67	110	118	107	129	116	117	76	50	890
Council taking your rubbish to a high-tech facility to recover materials and/or energy	114	108	116	122	112	95	92	74	57	890
Drop-off locations for food scraps	33	32	65	45	73	80	114	158	290	890
Drop-off locations for soft plastics and polystyrene	62	81	109	124	118	107	106	121	63	891
Education programs about waste avoidance, reuse and recycling	164	94	81	102	97	103	88	81	80	890
Footnotes: * Totals are not all the same because not all respondents answered all questions.										

Table 3: Percentages of each ranking for each initiative

	1	2	3	4	5	6	7	8	9	TOTAL*
A container deposit program for Victoria (e.g. 10 cents for bottles)	16%	11%	13%	11%	10%	11%	8%	9%	12%	101%
A reuse and repair centre	8%	9%	12%	14%	15%	15%	12%	7%	9%	101%
A third bin, for food scraps only	11%	14%	9%	9%	8%	9%	12%	16%	13%	101%
A third bin, for food scraps and garden waste	16%	19%	11%	10%	8%	9%	10%	11%	6%	100%
Better recycling systems and education for apartment buildings	8%	12%	13%	12%	14%	13%	13%	9%	6%	100%
Council taking your rubbish to a high-tech facility to recover materials and/or energy	13%	12%	13%	14%	13%	11%	10%	8%	6%	100%
Drop-off locations for food scraps	4%	4%	7%	5%	8%	9%	13%	18%	33%	101%
Drop-off locations for soft plastics and polystyrene	7%	9%	12%	14%	13%	12%	12%	14%	7%	100%
Education programs about waste avoidance, reuse and recycling	18%	11%	9%	11%	11%	12%	10%	9%	9%	100%
Footnotes: * Total percentages do not equal 100% due to rounding to whole numbers when taking decimal places into account, total is 100%										

ANALYSIS OF CONTRIBUTORS CONNECTION TO MELBOURNE (APPENDIX 1)

Table 4 presents the count and percentages of contributors' connection to Melbourne; this data is presented in Figure 1 and 7 in the report body and appendix 1, respectively. Note, contributors could have multiple connections to Melbourne.

Table 4: Contributors' connection to Melbourne		
Contributors' connection to Melbourne	Number of contributors	Percentage of all contributors
I live here	702	79%
I own a property here	188	21%
I work here	516	58%
I own or manage a business here	76	9%
I visit the City of Melbourne (e.g. shopping, dining, as a tourist)	274	31%
I manage a building	7	1%
I am representing a group	19	2%

Table 5 presents the connection-to-Melbourne groups' comments on the four Priorities; both counts, and percentages are presented. This data is displayed as charts in Figures 8 and 9.

Table 5: Connection to Melbourne groups' comments on Priorities					
Connection to Melbourne	Count of comments on Priorities				
	Priority 1	Priority 2	Priority 3	Priority 4	TOTAL
I live here.	615	35	35	22	707
I own a property here.	182	13	12	13	220
I work here.	477	26	32	15	550
I own or manage a business here.	63	10	6	5	84
I visit the City of Melbourne (e.g. shopping, dining, as a tourist).	266	22	19	6	313
I manage a building.	5	2	0	0	7
I am representing a group.	28	3	3	2	36
TOTAL	1636	111	107	63	1917
Connection to Melbourne	Percentage of comments on Priorities				
	Priority 1	Priority 2	Priority 3	Priority 4	TOTAL
I live here.	38%	32%	33%	35%	37%
I own a property here.	11%	12%	11%	21%	11%
I work here.	29%	23%	30%	24%	29%
I own or manage a business here.	4%	9%	6%	8%	4%
I visit the City of Melbourne (e.g. shopping, dining, as a tourist).	16%	20%	18%	10%	16%
I manage a building.	0%	2%	0%	0%	0%
I am representing a group.	2%	3%	3%	3%	2%
TOTAL	100%	101%	101%	101%	99%

Table 6 presents the connection-to-Melbourne groups' comments on Priority 1 topics; both counts, and percentages are presented. This data is displayed as charts in Figures 10 and 11.

Table 6: Connection to Melbourne groups' comments on Priority 1 topics							
Connection to Melbourne	Count of comments on Priority 1 topics						TOTAL
	Reduce	Reuse	Recycle	Recover	General support	Other comments	
I live here.	278	55	204	145	17	1	700
I own a property here.	90	21	56	42	5	0	214
I work here.	244	47	161	100	13	3	568
I own or manage a business here.	31	11	19	18	1	1	81
I visit the City of Melbourne (e.g. shopping, dining, as a tourist).	136	29	86	55	11	1	318
I manage a building.	2	0	1	2	0	0	5
I am representing a group.	12	4	9	7	0	1	33
TOTAL	793	167	536	369	47	7	1919
Connection to Melbourne	Percentage of comments on Priority 1 topics						TOTAL
	Reduce	Reuse	Recycle	Recover	General support	Other comments	
I live here.	40%	8%	29%	21%	2%	0%	100%
I own a property here.	42%	10%	26%	20%	2%	0%	100%
I work here.	43%	8%	28%	18%	2%	1%	100%
I own or manage a business here.	38%	14%	23%	22%	1%	1%	100%
I visit the City of Melbourne (e.g. shopping, dining, as a tourist).	43%	9%	27%	17%	3%	0%	100%
I manage a building.	40%	0%	20%	40%	0%	0%	100%
I am representing a group.	36%	12%	27%	21%	0%	3%	100%
TOTAL	41%	9%	28%	19%	2%	0%	100%

APPENDIX 3: WEBSITE LINKS PROVIDED BY SUBMITTERS

Table X presents websites provided by contributors. Many show specific examples of waste and/or resource recovery initiatives or infrastructure. Contributors' method of submission and, if appropriate, the corresponding comment to the website link.

Table 7: Submitted websites and links		
Submission type	Comment	Website/link
Participate Melbourne online survey	Please check out this link, this is what Melbourne should adopt, as the most livable city and leading in innovation. Melbourne need to step up the game and go outside the box and become a real model city for not just Australia but the world.	http://www.abc.net.au/news/2018-05-20/kamikatsu-the-japanese-town-with-45-different-recycling-bins/9776560
Participate Melbourne online survey	Compost facility so food & green waste can be collected and processed from CoM and other surrounding councils, it could be a joint council initiative to make the investment worthwhile - I think looking to San Francisco is great as the 'gold standard'	https://www.theguardian.com/environment/2014/jun/17/san-francisco-zero-waste-recycling-composting
Participate Melbourne online survey	City of Gold Coast are doing this- please do this in Melbourne:	http://www.goldcoast.qld.gov.au/mobile/environment/recycle-street-44936.html
Participate Melbourne online survey	It should look at the bigger cities in the world to understand what would happen if we fail now. A look at Perungudi Dumping Yard ,Chennai, India	http://www.thehindu.com/news/cities/chennai/perungudi-dumpyard-smoulders/article3466737.ece
Participate Melbourne online survey	Support local Kensington residents who are actively wanted to establish a Repair Hub to prevent hard rubbish going to landfill and teach repair skills to provide employment and ultimately 2nd stage recycled goods for sale see link	https://www.weforum.org/agenda/2017/04/recycled-shopping-centre-sweden-plastics-circular-economy/?utm_content=buffer1d753&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer
Participate Melbourne online survey	There are good schemes out there that are not well advertised, for example www.sharewaste.com , which is how we manage our food scraps despite the fact that we live in apartment with no garden for compost.	www.sharewaste.com
Participate Melbourne online survey		http://www.abc27.com/news/harrisburg-street-lights-to-get-smarter-collect-data-on-anything-from-traffic-to-trash_20180313091317349/1037012401
Participate Melbourne online survey	This should be a priority	https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Infrastructure-Projects/Automated-Waste-Collection-System
Participate Melbourne online survey		https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Infrastructure-Projects/Automated-Waste-Collection-System
Participate Melbourne online survey		https://www.eastbayexpress.com/oakland/oakland-homeless-resident-organizes-green-teams-to-clean-the-city/Content?oid=17480138

Participate Melbourne online survey	In line, we have recently proposed assembling a state-wide task force to help industry and agriculture to reduce their environmental footprints, while sustaining profitability. This is based on the general strategy from our new book, "Saving Planet Earth: Why agriculture and industry must be part of the solution." See:	http://www.connorcourtpublishing.com.au/Saving-Planet-Earth-Why-agriculture-and-industry-must-be-part-of-the-solution_p_120.html
Participate Melbourne online survey	I find that most people don't really understand what can properly go in a recycling bin. The Guardian had a quiz on line and I was surprised and the things that even me (a conscientious recycler was getting wrong). The council needs to educate people more about what can and can't be recycled:	https://www.theguardian.com/environment/2018/jul/01/think-you-know-how-to-recycle-take-the-quiz
Participate Melbourne online survey	... And Melbourne city council can organise to manufacture and sell those worm farms so it's the cheapest price available to Melbourne residents and perhaps make a profit too, as nowadays worm farms are pretty expensive, a lot of margins on the product ... And it' s one of the best ones out there, so maybe the council instead of wasting money on compostrevolution.com.au subsidising such highly margined prices, make their own product for their citizens to use.	http://www.hungrybin.co.nz/
Participate Melbourne online survey	Also, start to experiment new ways such as having a vertical worm farm(similar to vertical farming https://www.youtube.com/watch?v=-_tvjtUHNmU), fly larvae, for converting organic waste directly back into food. Research into inventing new ways to cook the worms for humans(as they' re very nutritious) so they can be a food source both for humans too and not just chickens/fish.	https://www.youtube.com/watch?v=-_tvjtUHNmU
Social media post (current recycling challenges)	Reusable Collapsible leakproof coffee cups for a start. 50,000 an hour in Australia on a weekday morning!	www.nixcups.com
Social media post (food waste)	Support innovators via seed funding / support? create a showcase / food-lab that gives agency to test / bend the rules - thinking Joost Bakker's Brothl.	https://www.broadsheet.com.au/.../joost-bakkers-brothl-close
Social media post (waste to energy)	Trying to avoid these products [non recyclable plastic packaging on food] in the first place is best, of course, but there is also a great program called RedCycle that recycles soft plastics. They have bins in most Coles and Woolworths supermarkets that take plastic bags and many other soft plastics...	www.redcycle.net.au
Social media post (waste to energy)	We need to build one of these...	https://www.ted.com/talks/mike_biddle/up-next
Social media post (waste to energy)	Oslo Waste to Energy Plan (OV)	https://www.youtube.com/watch?v=2dkmjjZD9_M&app=desktop
Social media post (world environment day)	City of Gold Coast is addressing the environment with a recycle street- maybe Melbourne should follow suit:	http://www.goldcoast.qld.gov.au/.../recycle-street-44936...
Retail and hospitality forum event		www.trashlesstakeaway.com.au
Emailed submission (Kensington Repair Hub)	Creating Wealth from Waste	https://www.demos.co.uk/files/Creatingwealthfromwaste.pdf
	This discussion paper addresses the Waste and	https://www.tccs.act.gov.au/_data/asset

Emailed submission (3R Waste and Recycling Discussion Paper).	Recycle Management Code (for the ACT) Version 2 – Revision 1 – October 2016 Sections 2, 3 and 4. The code can be found here -	s/pdf_file/0003/1126983/Waste_Code_Version2_October_2016.pdf
	Revised residential allocations (Appendix 3) within the code can be found here -	http://www.tccs.act.gov.au/_data/assets/pdf_file/0007/1085245/Engineering-Advisory-note7-Revised-Waste-and-Recycling-Allocation.pdf
	Reference is also made to Better Ways With Waste – Discussion Paper, Transport Canberra and City Services, ACT NOWaste October 2017. The Discussion paper can be found on the your say link here -	https://www.yoursay.act.gov.au/application/files/7215/0958/8125/DCC_Review_Discussion_Paper_Final_for_website.pdf
	This Discussion paper also addresses other waste management areas that are not covered by any design code within the ACT, including public spaces, recreation areas waste and recycling bins and the Recycling Drop Off Centres (RDOC's) managed by TCCS. Information for the RDOCs can be found here –	https://www.tccs.act.gov.au/recycling-and-waste/drop-off
	The ACT can lead the way for Australia with real waste and recycling innovation gaining higher rates of recycling, increased safety and lower costs whilst significantly lowering emissions. Further information can be found here	https://www.youtube.com/watch?v=HreHWMK2ovg
Emailed submission	LeanPath food waste smart tracker... Is used by businesses including PwC at Souhbank and Monash Health to help prevent food waste. Novotel Brisbane has used LeanPath to reduce food costs by 80% by preventing pre-consumer food waste. The Savings in the City program helped some of Melbourne's largest hotels to divert waste from landfill, but to prevent commercial food waste we need to enable people with technology.	www.leanpath.com
Emailed submission (3R Services)	...Also, the Nord Engineering containers transform recycling outcomes, so I have also provided for info here - Nord Easy System info here on U Tube	https://www.youtube.com/watch?v=nkHSnZlI6U

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