

Frankston City Council Waste Minimisation and Management Plan

2015–2020



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1 EXECUTIVE SUMMARY

This *Waste Minimisation and Management Plan* is a five year plan to guide Frankston City Council in improving the management of municipal solid waste, to increase environmental sustainability, protect human and environmental health, meet the Frankston City community's need for efficient and accessible waste services, while remaining cost-effective for the community. The *Plan* was developed in close consultation with the Frankston City community and outlines Council's priorities over the next five years.

To support the reduction of Frankston City's waste, Council has also committed to establishing the *Frankston Regional Recycling and Resource Recovery Centre* in Skye. The \$12.3 million dollar centre will open in October 2015 and will accept hard waste, green waste and recyclable material, but not food waste, asbestos, and hazardous, liquid and medical waste. Items that can be reused or recycled from the Centre will be diverted from landfill, enhancing resource recovery in the region.

Council has adopted the following vision, mission, focus areas and aims for the *Waste Minimisation and Management Plan*. The aims are supported by targets, accompanied with an action plan, which outlines Council's priorities for delivering waste minimisation and management services over the next five years.

Vision	To enhance the sustainability of Frankston City through provision of innovative, creative, socially-responsible and cost-effective services that lead to reduction of waste, recovery of more resources and empowerment of Council, households and businesses to use resources more efficiently		
Mission	For Frankston City Council to act as a leader in the sustainable use of resources, by providing best practice waste and recycling infrastructure and services, and by inspiring and empowering the community to act more sustainably		
Focus areas	1. Provide the Frankston City community with best practice and cost-effective infrastructure and services	2. Inspire and enable the Frankston City community to reduce waste through avoidance and reuse	3. Demonstrate leadership in resource recovery to conserve resources and divert waste from landfill
Aims	<p>1.1 Ensure that future local waste and resource recovery infrastructure is developed to meet best practice standards, requirements and community needs</p> <p>1.2 Ensure residential kerbside infrastructure meets community needs and encourages waste recovery</p> <p>1.3 Ensure future waste contracts maximise environmental outcomes and cost-effectiveness for the community</p> <p>1.4 Ensure the hard waste collection is cost-effective and meets community needs</p> <p>1.5 Manage closed landfills in accordance with existing plans and State Government requirements</p> <p>1.6 Improve infrastructure and services to discourage litter and illegal dumping</p> <p>1.7 Ensure that Council's activities provide a best practice example to the community</p>	<p>2.1 Improve the reuse of materials and items</p> <p>2.2 Reduce disposal of food waste and support the community to avoid food waste</p> <p>2.3 Reduce the impacts of packaging</p> <p>2.4 Support local businesses and community groups to reduce waste generation</p>	<p>3.1 Increase resource recovery from the residential kerbside waste stream</p> <p>3.2 Continue to improve recycling education and communication</p> <p>3.3 Continue to provide and improve disposal alternatives for problem wastes and recycling services for specialty items</p> <p>3.4 Improve recycling in public places</p> <p>3.5 Support local businesses and community groups to enhance resource recovery</p>

The targets and measures adopted for the Waste Minimisation and Management Plan are as follows:

Targets and measures								
No.	Key Performance Indicator	Baseline 2013-14	Target 2015-16	Target 2016-17	Target 2017-18	Target 2018-19	Target 2019-20	Measurement
1	Kerbside garbage sent to landfill	8.43 kg / tenement / week	≤8.5kg / tenement / week	≤8.4kg / tenement / week	≤8.3 kg / tenement / week	≤8.2 kg / tenement / week	≤8.1 kg / tenement / week	Tonnage of kerbside garbage waste stream only. Note: Tenements refers to households and businesses which have a kerbside garbage service through Council.
2	Contamination rate of kerbside recycling bin stream	Single dwelling – 11.4% by weight Multi-unit dwelling – baseline to be determined	≤12% Establish baseline and targets	≤11% To be determined	≤10% To be determined	≤10% To be determined	≤10% To be determined	Subject to results of an annual kerbside waste composition audit (to be modified to include additional data needs) (2015-16).
3	Kerbside organic waste sent to landfill from the garbage stream	55% by weight (2014-15 data)	≤55%	≤55%	≤55%	≤55%	≤55%	Council's annual kerbside waste composition audit.
4	Recovery rate of incoming material at Council's new Frankston Regional Recycling and Recovery Centre	Not applicable (based on Centre opening in 2015-16)	≥40% of incoming material is recovered	≥50% of incoming material is recovered	≥55% of incoming material is recovered	≥60% of incoming material is recovered	≥65% of incoming material is recovered	Includes materials recycled and/or reused. Key performance indicator for contractor – reporting to Council.
5	Community satisfaction level with Council's kerbside waste services	95%	≥95%	≥95%	≥95%	≥95%	≥95%	Council's annual community kerbside collection survey.

Targets and measures									
No.	Key Performance Indicator	Baseline 2013-14	Target 2015-16	Target 2016-17	Target 2017-18	Target 2018-19	Target 2019-20	Measurement	
6	Community awareness of the following services: <ul style="list-style-type: none"> Disposal alternatives for hazardous materials Reuse and recycling alternatives for specialty materials and hard waste Disposal pathways for hard waste 	Not applicable – baseline to be determined	Establish baseline to improve community awareness	≥2% above baseline	≥4% above baseline	≥6% above baseline	≥8% above baseline	Subject to results of Council's annual community kerbside collection survey (to be modified to include additional questions) (2015-16).	
7	Provide community outreach to the Frankston City community about different waste services	32% of households	≥30% of households	≥30% of households	≥30% of households	≥30% of households	≥30% of households	Includes households which have been audited by Bin Cop, Halve Our Waste participants, Detox Your Home, as well as workshop attendees.	
8	Incidence of illegal dumping	Not applicable – baseline to be determined	Establish an improved reporting system for better data on the incidence of illegal dumping	≤1% below baseline	≤1% below baseline	≤1% below baseline	≤1% below baseline	Subject to further analysis of Council's illegal dumping data and preparation of Council's Litter Prevention Action Plan (data due 2015-16).	
9	Waste sent to landfill from Council staffed properties	42.3 tonnes per annum (2014-15 data)		≤10% below baseline (≤38.07 tonnes per annum)		≤20% below baseline (≤33.84 tonnes per annum)		Waste audit of selected Council facilities, conducted every two years.	

In order to meet each target over the life of the *Plan*, new actions have been proposed. These new actions may have associated costs and paybacks (outlined in *Section 14: Action Plan*). The costs of the new actions, as outlined in the following table, are expected to be mitigated by the predicted savings from implementing the *Plan*.

Five Year Cost Projection – Implementation of the Waste Minimisation and Management Plan				
Year of completion	High priority Actions	Medium priority Actions	Low priority Actions	TOTAL
1	\$2,500	\$20,000		\$22,500
2	\$2,500	\$115,267	\$25,000	\$142,767
3	\$32,500	\$11,667		\$44,167
4	\$2,500	\$56,667		\$59,167
5	\$2,500	\$15,000		\$17,500
SUB-TOTAL	\$42,500	\$218,600	\$25,000	\$286,100

Should Council choose to implement all of the recommend actions, it is predicted that the resulting landfill disposal savings would equate to an estimated \$300,382, essentially making the Plan cost neutral.

2 INTRODUCTION

Waste is an issue that affects us all. Waste was once a word used to describe unwanted materials or objects that we “disposed” of. The *Environment Protection Act 1970* defines waste as, ‘any matter, whether solid, liquid, gaseous or radioactive, which is discharged, emitted or deposited in the environment in such volume, constituency or manner to cause an alteration to the environment.’

Today the term waste has a much broader meaning. Waste now contains a complex mix of materials including plastics and precious metals. We now recognise that what was once considered ‘waste’ now includes valuable resources and recyclable materials.

We also recognise that too often, to produce a single product there is a global trail of finite resource usage. When we choose not to purchase products we don’t need and reduce the amount of waste we create, we also reduce the effects on those resources both locally and globally. Proper waste management is a key element to ensuring resource efficiency and sustainable growth.

The traditional role of local government has been to collect, dispose of and manage waste. Now, with the broader understanding of waste considered, Frankston City Council has developed its *Waste Minimisation and Management Plan*.

Council is committed ensuring equitable and sustainable access to waste and recycling for all its residents. Council will continue to advocate for innovative solutions in best practice waste management and reduction. We will also work alongside Federal and State Government agencies to adopt appropriate local solutions, while considering the broader state-wide reforms required to manage waste more sustainably into the future.

This *Waste Minimisation and Management Plan* outlines the strategic direction for waste minimisation and management in Frankston City for the period of 2015–16 to 2019–2020. It will guide Frankston City Council’s resources to achieve the best possible outcome for improving environmental sustainability, while remaining cost-effective for our community.

The development of the *Waste Minimisation and Management Plan* was achieved through consultation and engagement with Frankston City’s Councillors, Hyder Consultants, government agencies and our local community.

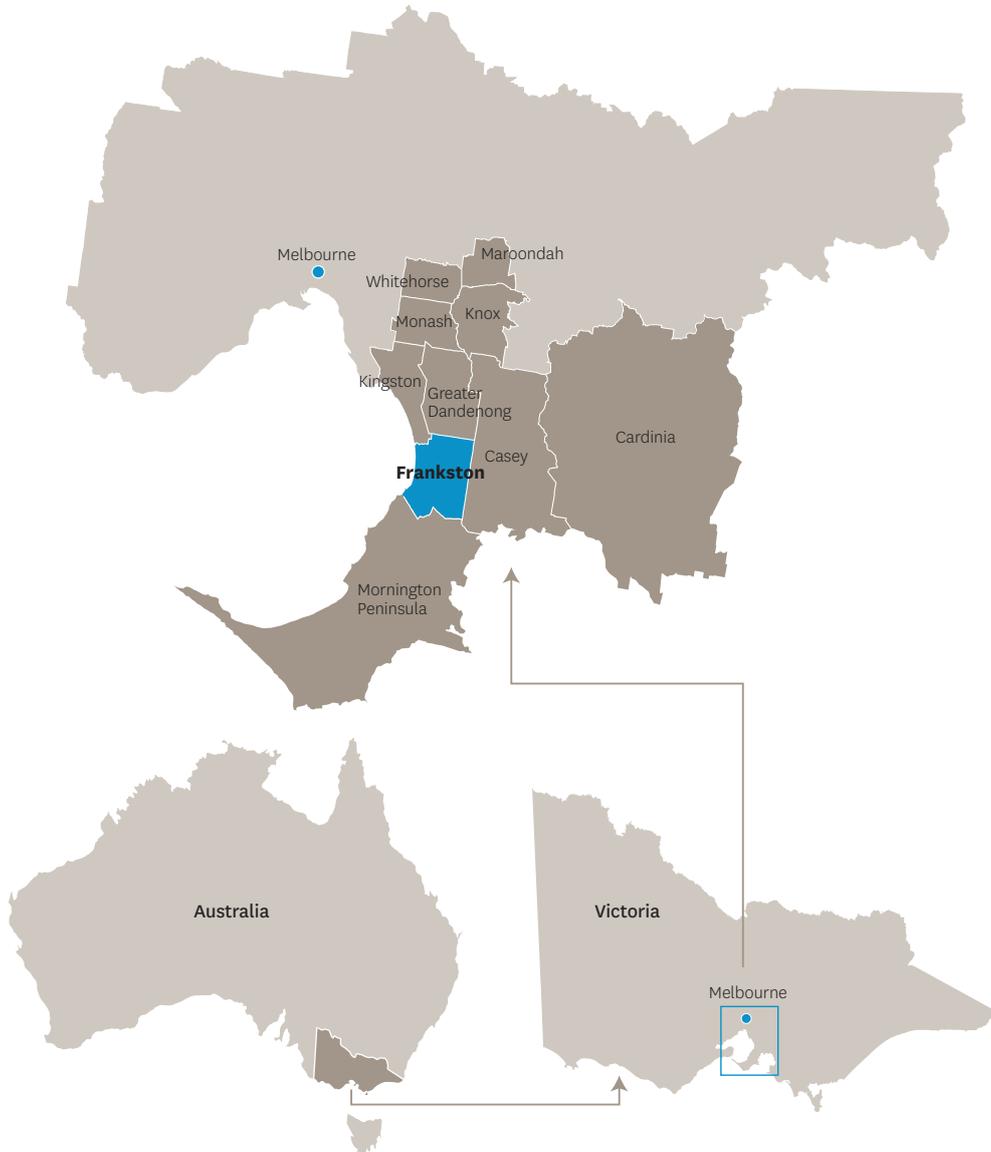
3 SCOPE

The *Waste Minimisation and Management Plan* covers the key areas of Frankston City Council's waste and recycling services, including:

- Kerbside garbage, recycling and green waste 'garden organics' service
- Kerbside hard waste annual and at-call collection service
- The Frankston Regional, Recycling and Recovery Centre (FRRRC - in development)
- Specialty Recycling (e.g. Specialty Recycling Hubs, Detox Your Home)
- Waste education and advocacy
- Public place waste and recycling
- Waste management in new developments (planning applications)
- Closed landfill management

During development of the *Plan*, there was consideration given to the management of littering, and in particular, illegal dumping, including its inter-relationship with waste. However, more detailed analysis of these issues, including future management actions, will be addressed in the development of Council's new Litter Prevention Action Plan.

4 OUR COMMUNITY



Frankston City is located approximately 45 kilometres south of Melbourne. The municipality is within metropolitan Melbourne and covers an area of about 131 square kilometres from Seaford Wetlands in the north, to Mt Eliza in the south, and the Western Port Highway in the east. The western boundary of the City is made up of about 10 kilometres of coastline along Port Phillip Bay.

Frankston City comprises of the suburbs of Frankston, Frankston South, Frankston North, Seaford, Carrum Downs, Langwarrin, Langwarrin South, Karingal, Sandhurst and Skye.

Demographics

In 2011, the population of Frankston municipality was 130,055. It is estimated that by 2021, the Frankston City population will increase to 141,843, with 56,922 households living in 59,878 dwellings.

The average household size in 2011 is 2.51 people. It is estimated that this will drop to 2.46 in 2021.

Eighty five per cent of residents in the municipality speak only English. Nine per cent speak a second language and only one per cent do not speak English.

This gradual increase in population and decrease in household size is the predicted ongoing trend into the foreseeable future and has implications for the way in which we manage our waste.

Table 1 outlines the composition of dwelling types in Frankston City in 2011 from the Australian Bureau of Statistics, with projections for 2031 from the Frankston Housing Strategy.

This information is important because waste and resource recovery infrastructure and service needs differ between dwelling types. For example, semi-detached / terrace houses usually have limited waste and recycling bin storage space and apartment buildings may have garbage chutes and shared bins.

Table 1 Composition of dwelling types in Frankston municipality 2011 and projections to 2031

Dwelling	2011	2031
House	82.30%	55%
Semi-detached or townhouse	6%	23%
Flat, unit or apartment	9.9%	22%
Other	0.9%	N/A

5 STRATEGIC CONTEXT

Within Australia, each tier of government (Federal, State, Local) plays an important part in guiding how waste is managed at a local level. This *Waste Minimisation and Management Plan* has been produced to align with Federal, State and local policies, targets and objectives.

The following is a summary of key documents that influence this *Waste Minimisation and Management Plan*.



Table 2 Government agencies governing waste in Australia and their related policies and plans

Federal Government	Victorian Government	Frankston City Council
National Waste Policy: Less Waste, More Resources	Environment Protection Act 1970	Frankston City Community Plan
Product Stewardship Act 2011	Local Government Act 1989	Frankston City Council Plan 2013-2017
Australian Packaging Covenant	Getting Full Value: the Victorian Waste and Resource Recovery Policy	Frankston City Council Environmental Sustainability Policy 2010
	State-wide Waste and Resource Recovery Infrastructure Plan (SWRRIP) 2013-2043	Frankston City Council Greening Our Future: Environment Strategy 2014-2024
	Metropolitan Waste and Resource Recovery Strategic Plan 2013 - Consultation Draft	Waste Minimisation and Management Plan (this Plan)
		Litter Strategy (currently under review)
		Carbon Neutral Action Plan 2012-2016

National Waste Policy: Less Waste, More Resources

The National Waste Policy, published in 2009 by the Federal Government, outlines the plans for waste management in Australia through to 2020. While the change of government in 2013 has led to uncertainty surrounding implementation of actions under the Policy, the desired outcomes of the Policy should steer the direction of waste management by all lower tiers of government.

Product Stewardship Act 2011

The Product Stewardship Act 2011 establishes a framework for the implementation of product stewardship programs. The aim of such programs is to move away from ‘end of pipe solutions’ and to share the burden of appropriate end-of-life management of targeted materials across manufacturers, retailers and users, rather than the general community.

Australian Packaging Covenant

The Australian Packaging Covenant (APC) is an initiative which encourages industry, governments and community groups to work together to create solutions to address sustainable packaging, recycling rates and packaging litter.

Environment Protection Act 1970

The *Environment Protection Act 1970* is the primary piece of legislation for waste management in Victoria. The Act aims to manage the environment in a holistic and integrated way and is focused on outcomes and the concept of preventing pollution and environmental damage through setting environmental quality objectives and establishing programs to meet them.

Landfill Levy – The landfill levy, under section 50S of the Act, is designed to encourage waste generators to reduce the volume of waste disposed to landfill. The levy is applicable to all waste disposed of at a licenced landfill in Victoria and the funds are used to promote best practice waste management, sustainable resource use and environmental protection.

Local Government Act 1989

The *Local Government Act 1989* is the Act which governs the powers and functions of local government in Victoria. In relation to the objectives of a council, it states:

‘The primary objective of a council is to endeavour to achieve the best outcomes for the local community having regard to the long term and cumulative effects of decisions.

Getting Full Value: the Victorian Waste and Resource Recovery Policy

Getting Full Value: the Victorian Waste and Resource Recovery Policy (Getting Full Value) outlines the State's intentions for waste and resource recovery in Victoria through to 2043 and outlines policy priorities to guide actions up until 2023.

State-wide Waste and Resource Recovery Infrastructure Plan (SWRRIP) 2013-2043

The State-wide Waste and Resource Recovery Infrastructure Plan 2013-2043 (SWRRIP) sets out a direction for investment in waste and resource recovery infrastructure in Victoria, with the intention that the system will be able to cope with the greater volume and different types of wastes expected to be produced across industry, government, households and businesses.

Metropolitan Waste and Resource Recovery Strategic Plan 2013 - Consultation Draft

The Metropolitan Waste Resource and Recovery Group (previously Metropolitan Waste Management Group) released the Metropolitan Waste and Resource Recovery Draft Strategic Plan for consultation in 2013. The draft Plan provides a strategic plan for the infrastructure required to manage Melbourne's solid waste over the next 30 years. This draft Plan is designed to support the Victorian Government's Getting Full Value Policy and Sustainability Victoria's draft State-wide Waste and Resource Recovery Infrastructure Plan (SWRRIP).

Frankston City Council Plan 2013-2017

The Frankston City Council Plan 2013-2017 aims to set out the direction for Frankston City Council through to 2017.

Frankston City Council Environmental Sustainability Policy 2010

Council's Environmental Sustainability Policy contributes to the *Waste Minimisation and Management Plan* by demonstrating the importance that Council places on environmental sustainability.

Greening our Future – Environment Strategy 2014-2024

Frankston City Council's 10-year Environment Strategy provides the direction for Council's environmental sustainability actions through to 2024, including those that relate to the wise use of natural resources and minimising environmental impacts.

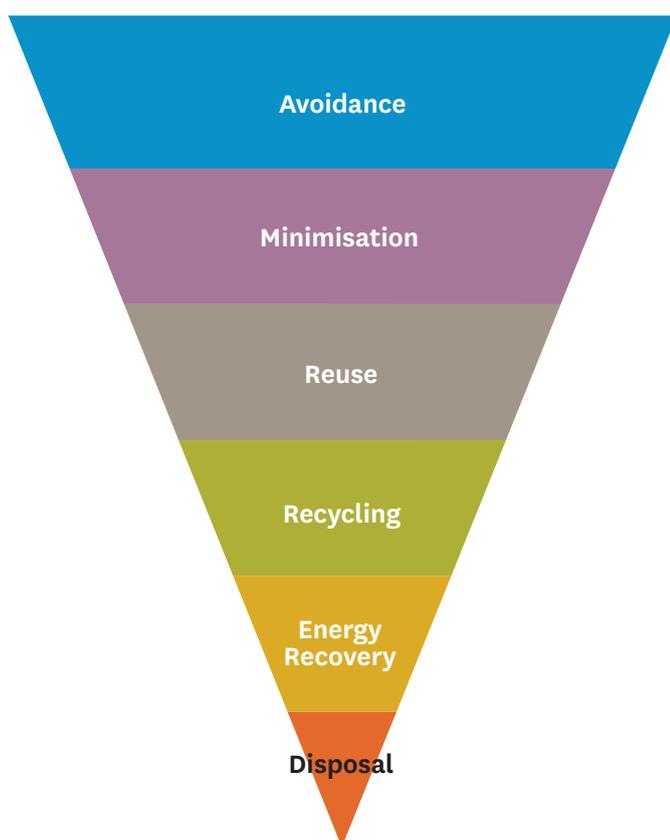
Carbon Neutral Action Plan 2012-2016

Council's Carbon Neutral Action Plan 2012-2016 relates to waste minimisation and management, for corporate, community and commercial and industrial emissions that are generated from the waste stream.

6 BACKGROUND

The waste hierarchy below is commonly adopted by governments across Australia as the ideal structure for moving towards sustainable resource management.

The hierarchy places waste avoidance and reduction as the most important option, and disposal as the least. This hierarchy is continuously developed to reflect our current understanding of waste and how it can be avoided.



The waste hierarchy shows that it is possible to greatly reduce waste by considering the alternative options for a resource. All products and services have some kind of environmental impact. Raw materials are used for production, manufacturing, distribution and disposal. Currently in Australia, the main avenue for the disposal of waste is landfill.

The potential for waste recovery is significant. For example, each household in Frankston municipality generates around 1,057 kilograms of waste per year. There are also unknown quantities of waste from commercial and construction sources.

It is also a priority to keep materials such as food and garden waste from entering landfill. The air tight environment of a landfill means that organic (food and plant based waste) decomposes in an anaerobic (absence of oxygen) environment. As a result, the greenhouse gas, methane is created. Methane is 20 times more damaging to the environment than carbon dioxide.

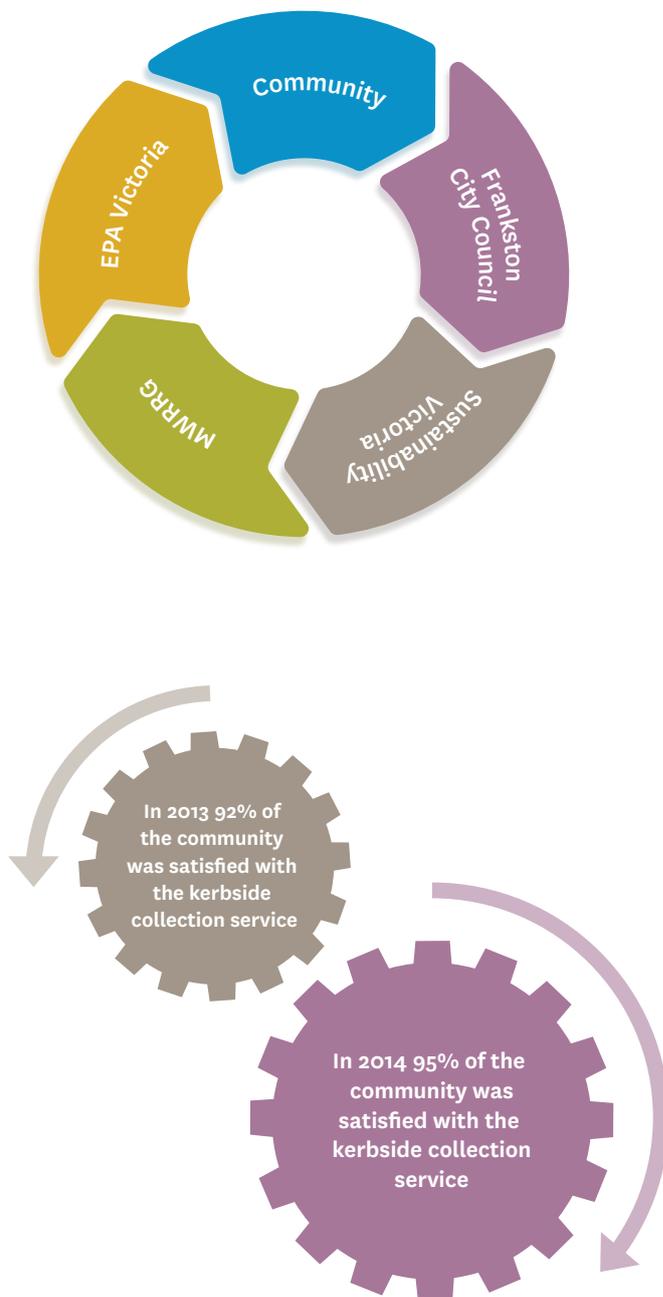
While disposal of materials in landfill is not ideal, landfills across Melbourne and Victoria-wide are strictly regulated by the Environment Protection Authority (EPA) Victoria. Today, landfills are required to use the latest technology and best practice methods to treat waste. The landfill operator currently used by Frankston City Council, that is, Hampton Park Landfill, is a long-term best practice landfill. They capture a large portion of the methane gas created in the landfill; this is then converted to electricity, reducing its environmental impacts.

Frankston City Council's management of residential waste (and some business waste) consists of a large portion of the annual budget and therefore requires careful consideration. Due to the State Government's Landfill Levy, the costs of waste disposal will further increase (see *Chapter 10: Financial Considerations*).

7 CONSULTATION AND ENGAGEMENT

Key stakeholders involved in the development of the *Waste Minimisation and Management Plan* include the local community, Frankston City Councillors and staff, as well as government agencies involved in waste management policy. Consultation involved a series of meetings,

workshops, focus groups and community surveys. The outcomes of the consultation have been incorporated into the development of the Plan.



The consultation process for the *Waste Minimisation and Management Plan*



Community survey and focus groups

To inform the development of the *Waste Minimisation and Management Plan*, Council conducted an online community survey in September and October 2014. The survey was promoted through Council's networks and email lists, including to residents and businesses. The survey received 258 responses.

In addition, Council hosted three focus groups with community members, to discuss current waste and recycling practices. The focus groups were held in October 2014. Twenty one people attended the focus group meetings.

Key points:

- 81% of survey respondents stated that they were 'highly active' or 'active' in current waste minimisation and recycling practices.
- The most common practices included recycling (plastics, paper/cardboard), green waste, composting or worm farming. The least common practices included purchasing products only with recyclable materials or products with minimal packaging.
- The biggest challenges to recycling and waste minimisation were access/distance to recycling or reuse facilities (such as waste transfer stations) and lack of product availability without excess packaging and convenience. During the focus groups, participants also identified a lack of education or misinformation as a barrier to increased recycling and waste minimisation. Some residents found recycling complicated and were unsure as to whether materials were recyclable or not.
- Most residents source their information on recycling and waste minimisation from the Council's website, Frankston City News (Council's newsletter) and Enviro News (Council's environment e-newsletter). Residents would prefer to receive information in the future via Council's website, Enviro News and Frankston City News.
- Residents and businesses were also asked whether they would be willing to pay for a higher level of waste services, with 76% saying they would not be willing to pay more, and 24% willing to pay more.
- The most popular actions Frankston City Council could do to enhance residents/businesses ability to recycle and/or minimise waste included providing access to a transfer station, better access for speciality recycling and recycling information and lowering the cost of the green waste bin.

8 CURRENT WASTE MANAGEMENT

Frankston City Council offers a dark green-lidded kerbside mobile garbage waste bin. Collected weekly, Frankston City residents have the option of either an 80 litre or a 120 litre sized bin. The waste is currently disposed at the Hampton Park Landfill, operated by SUEZ environnement.

Residents are also provided with a yellow-lidded 240 litre co-mingled recyclables bin which is collected fortnightly. Additional recycling bins are also available to residents at a reduced cost, or are fully subsidised by Council to some households if they meet certain criteria. In 2015, the recyclables were taken to the Polytrade Recycling Materials Recovery Facility (MRF) in Dandenong for processing.

An optional light green-lidded 240 litre garden organics bin is available at an additional cost to residents and is collected fortnightly. It is envisaged from 2019-20, that garden organics from Council's kerbside collection will be processed through a new contract. This contract will

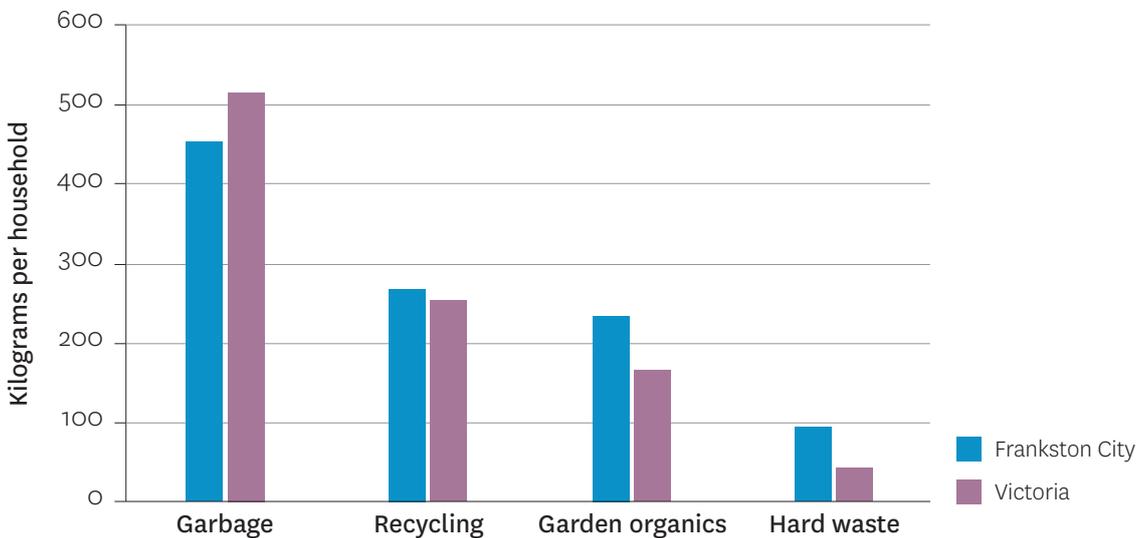
involve processing both food waste and garden organics from eight councils by three operators (currently addressed in the South East Metropolitan Organics Tender).

Garbage, recycling and garden organics collections are also available to businesses.

Each eligible household also receives one scheduled hard waste collection per year. Residents are able to dispose of up to two cubic metres of waste through this collection. For a fee, residents also have access to one additional subsidised at-call collection. After that, residents can organise an at-call collection at full cost.

Also see *Section 8.10: Other Waste Services for the Frankston City Community* for an outline of Council's waste education and specialty recycling initiatives.

Diagram 1 Frankston City's household waste, recycling and garden organics (2013-14) compared to the Victorian average



Frankston City's household waste streams compared to the Victorian Average

In 2013-14, each household in Frankston City produced on average 1,057 kilograms (kg) of waste, comprising of:

- 455 kg of garbage
- 270 kg of recyclables
- 237 kg of garden organics (also referred to as 'green waste')
- 95 kg of hard waste (of which 80 kg was landfilled)

When compared to the Victorian average (Diagram 1), Frankston City residents recycle more (5.5% more than the Victorian average), produce less kerbside waste (13.8% less than the Victorian average), produce more garden organics (41% above the average) and put out more than double the amount of hard waste for collection.

8.1 Kerbside Services

Table 3 outlines the total services delivered to the Frankston City community by Council for kerbside waste, recycling and garden organics collection from 2010-11 to 2013-14, including residential and commercial properties.

Table 3 Quantities of kerbside services delivered to the Frankston City community 2010-11 to 2013-14

Service Collection (Quantities)	2010-11	2011-12	2012-13	2013-14
Residential Kerbside Waste	51,998	52,758	53,419	54,070
Commercial Kerbside Garbage	749	803	818	1,009
Residential Kerbside Recyclables	51,998	52,758	53,419	54,070
Commercial Kerbside Recyclables	860	919	964	1,009
Residential Kerbside Garden Organics	29,606	31,464	32,969	34,338
Number of properties with access to the annual hard waste collection	55,204	56,713	55,848	57,849
Hard waste at-call services provided	409	1,030	1,281	1,782

Table 4 below outlines the tonnages collected through Council's kerbside bin collection, from 2010-11 to 2013-14. In 2013-14, 53,781 tonnes of material were collected, with a kerbside diversion rate of 52.7%. This means that Council is recovering around half of the kerbside waste.

Table 4 Tonnes collected through Frankston City Council's kerbside bin collections 2010-11 to 2013-14

Waste Stream	2010-11	2011-12	2012-13	2013-14
Garbage	24,454	23,952	24,395	24,519
Recyclables recovered	14,953	15,056	15,312	15,077
Recyclables contamination	1,614	1,625	696	686
Garden organics recovered	12,328	12,497	12,269	13,257
Garden organics contamination	290	294	111	242
Total Kerbside (tonnes)	52,638	53,424	52,784	53,781
Frankston City Kerbside diversion rate	51.8%	51.6%	52.3%	52.7%
<i>Metropolitan Melbourne average diversion rates</i>	49.9%	46.4%	N/A	N/A

In 2013-14, Council recovered around half of the residential waste, mostly through the kerbside recycling and garden organics collections.

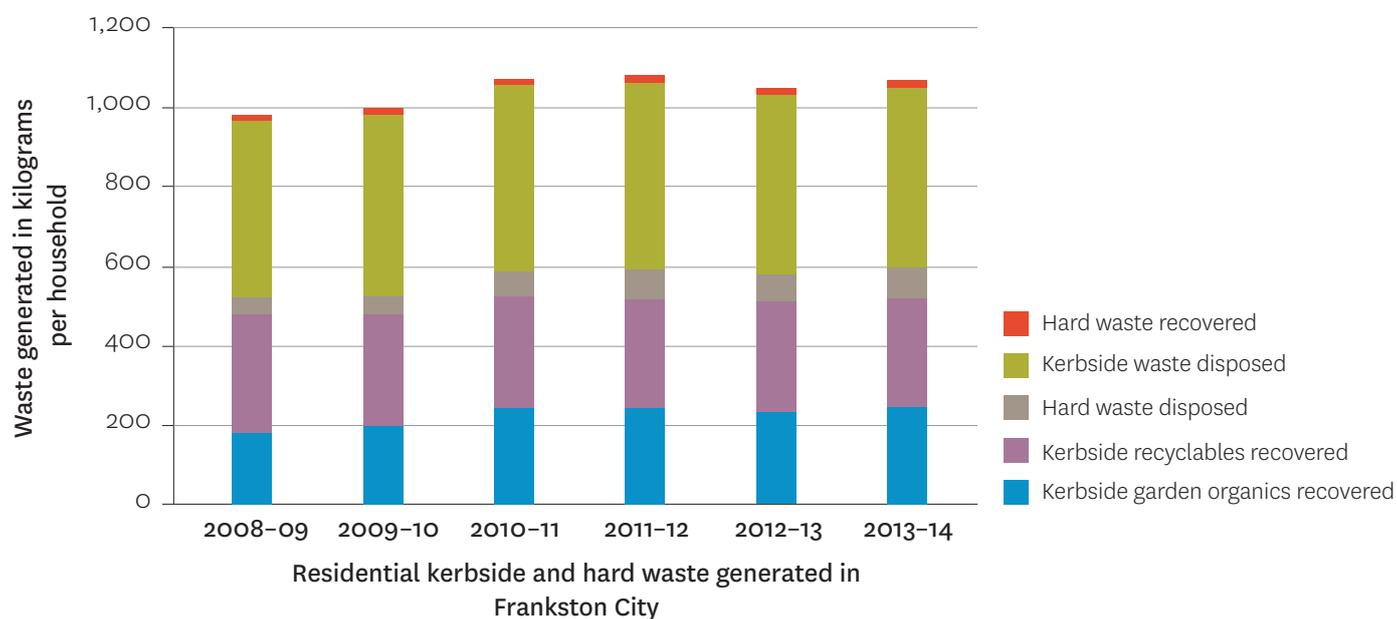
8.2 Waste and Recycling in Frankston City – An Overview

Total household waste generation

Diagram 2 outlines the total amounts of each waste stream generated each year on average for a Frankston City household. Total household waste generation has increased over the past six years; although this is mostly due to an increase in garden organics being collected and

recovered through Council's kerbside green waste service. In 2013-14, on average each Frankston City household produced 1,057 kilograms of waste, of which 535 kilograms (51 per cent) was sent to landfill (including hard waste).

Diagram 2 Total residential waste (kilograms) generated per Frankston City household 2008-09 to 2013-14



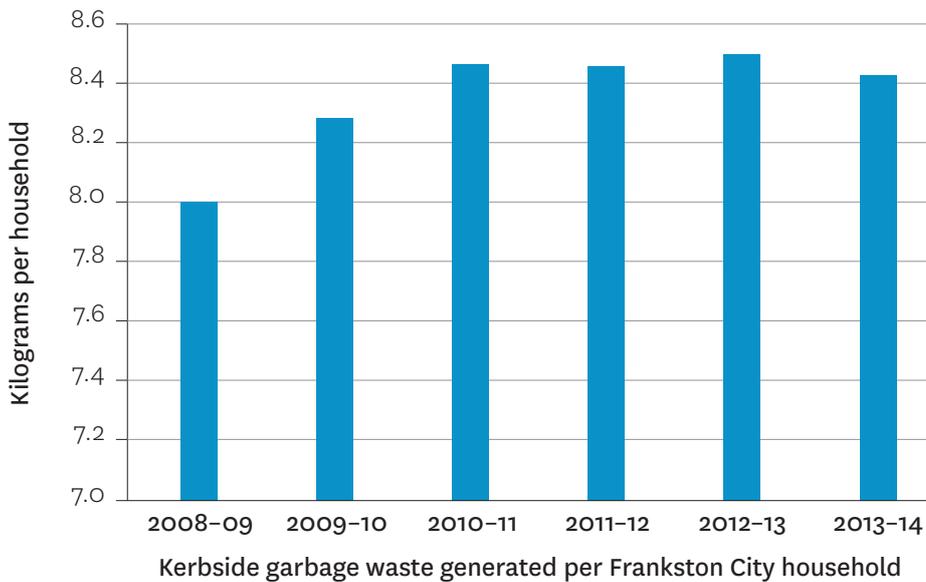
Household garbage waste sent to landfill

On average, Frankston City households sent 8.4 kilograms of kerbside garbage waste to landfill each week (2013-14). Diagram 3 shows the amount of waste sent to landfill from the kerbside garbage collection has increased from 8 kg per household per week in 2008-09 to 8.4 kg per household per week in 2013-14 (an increase of 5% over six years), however has remained relatively stable between 2010-11 and 2013-14. It is possible that the closure of the

former Waste Transfer Station in Frankston in 2010 has also impacted on the amount of household waste going to landfill.

In comparison, Victorians average 9.4 kg per household per week, demonstrating that on average, Frankston City households are producing less garbage than the Victorian average.

Diagram 3 Frankston City kerbside garbage waste per household per week (kilograms) 2008-09 to 2013-14



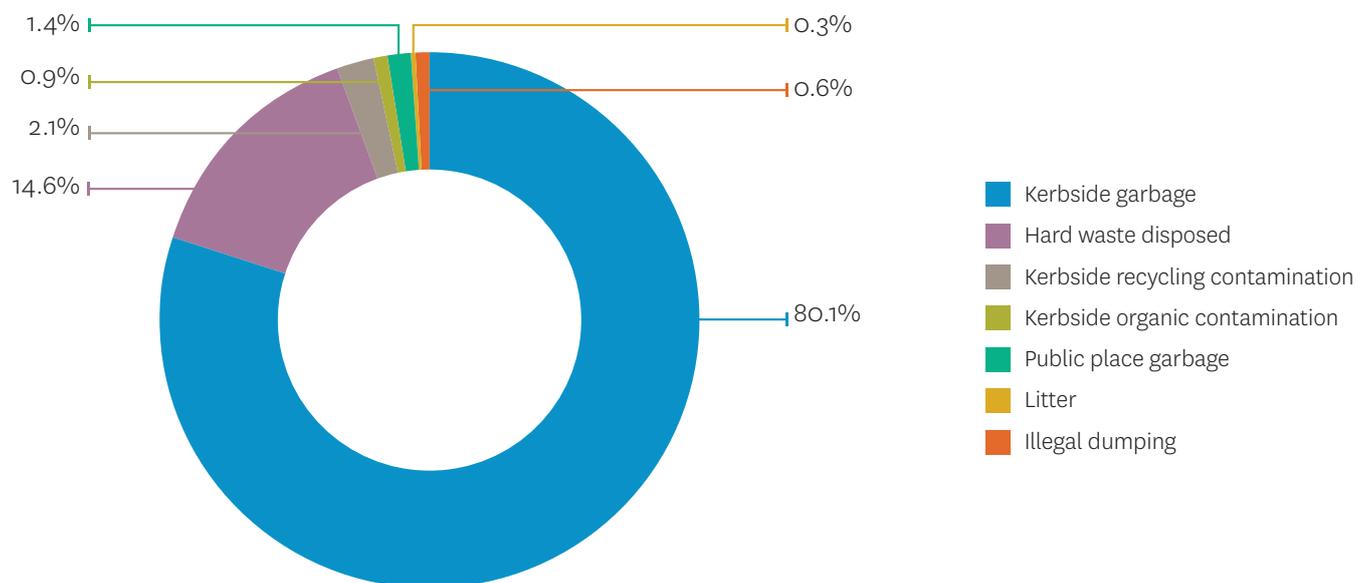
Total waste generation

Council also manages waste from public garbage and recycling bins, illegally dumped materials, litter as well as Council's operational waste.

While a significant proportion of Frankston City's kerbside and public place recycling materials is recycled, over 30,000 tonnes is disposed of to landfill (based on known data sources)¹. Diagram 4 shows the composition of Frankston City's waste which is currently sent to landfill, from Council's waste and recycling services. It is clear that garbage from kerbside bins is the most significant component and therefore presents the greatest opportunity for improvement in recovery².

1. A significant amount of waste is also produced from construction and demolition (C&D) and commercial and industrial (C&I) sources, however little data is available on these waste streams as this waste is managed by private operators.
2. 'Recovery' or 'resource recovery' refers to both recycling and recovering energy from waste.

Diagram 4 Composition of Frankston City waste, by weight, collected by Council and sent to landfill in 2013-14



As shown in Diagram 4, over 80% of waste sent to landfill in 2013-14 came from kerbside garbage bins – this equated to over 24,500 tonnes.

8.3 Composition of Kerbside Waste

Regular audits are conducted by Frankston City Council on the composition of materials in Frankston City’s kerbside garbage bins. The results provide vital information on how to improve resource recovery.

Diagram 5 shows the results of a kerbside waste audit conducted by Council in 2013. It demonstrates over half of the garbage bin waste in Frankston City is materials which could be recycled – including dry recyclables such as paper, plastics and glass, as well as organics. The audit showed the organics component (33%) is mostly food organics and some garden organics.

While Council offers a collection service to recycle garden organics, there is a pending tender which will help initiate municipal food waste recycling within Frankston City within the next 5 years.

In 2013, Sustainability Victoria also conducted an audit and gathered detailed information about the food waste component of Frankston City’s kerbside garbage stream, with the results shown in Diagram 6. The audit demonstrated that around 66% of the food waste thrown out by Frankston City households was actually avoidable. The largest components of this avoidable section were meals (18%), fresh vegetables (13%), bakery items (12%) and fresh fruit (10%). Types of food waste termed as ‘unavoidable’ included vegetable peelings, bones, egg shells and coffee grounds.

Diagram 5 Composition of an average Frankston City kerbside waste bin by weight (2013)

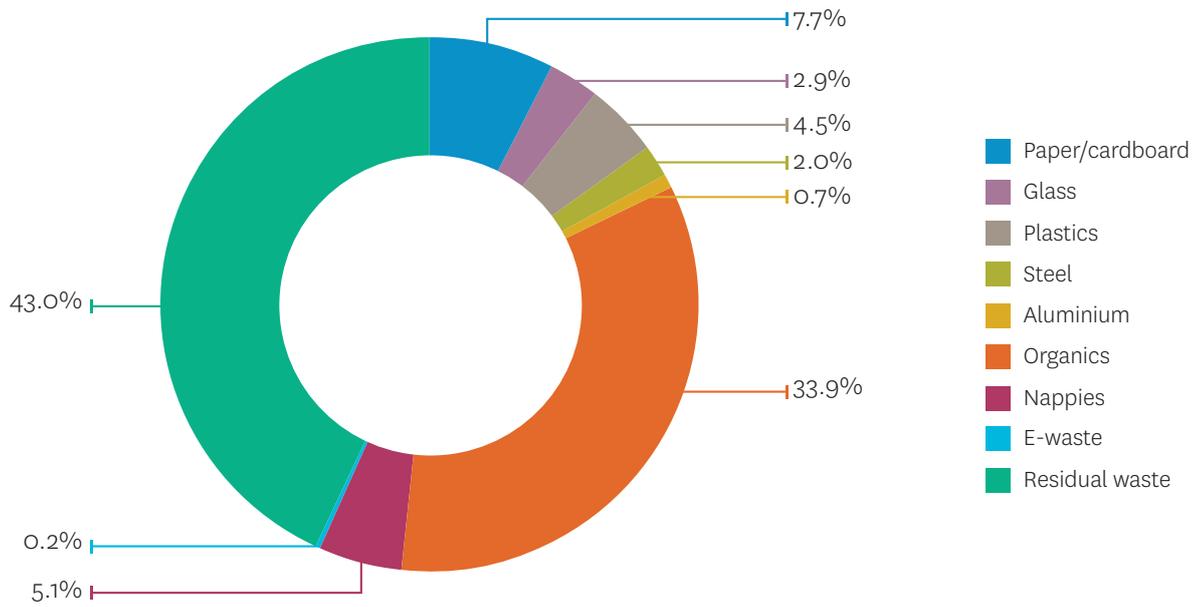
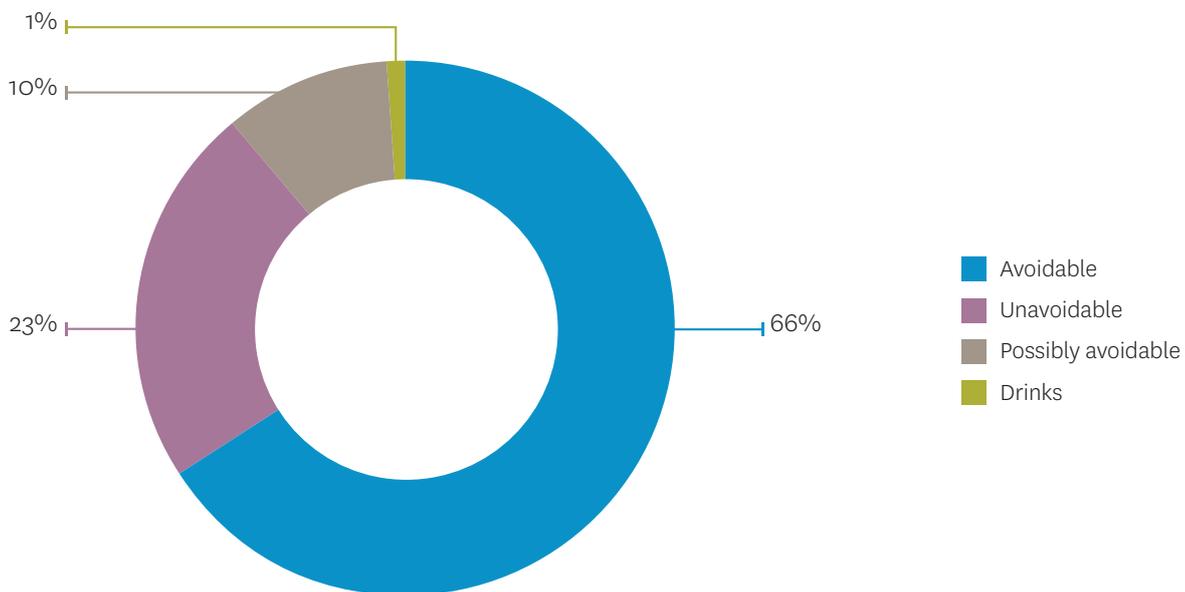


Diagram 6 Composition of Frankston City's kerbside food waste by weight (2013)



8.4 Kerbside Recycling

Diagram 7 Total tonnes collected from Frankston City's kerbside recycling service (2013-14)

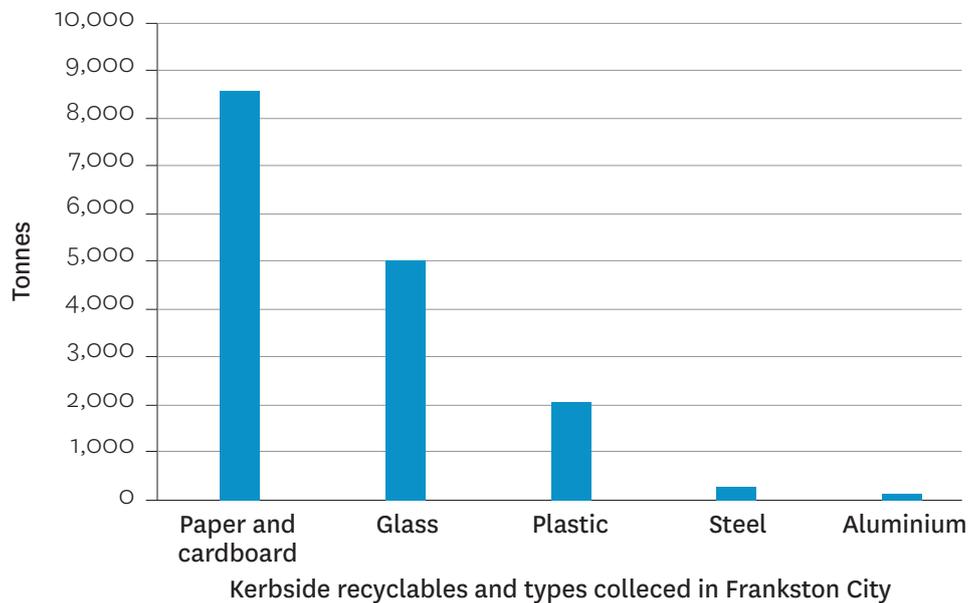


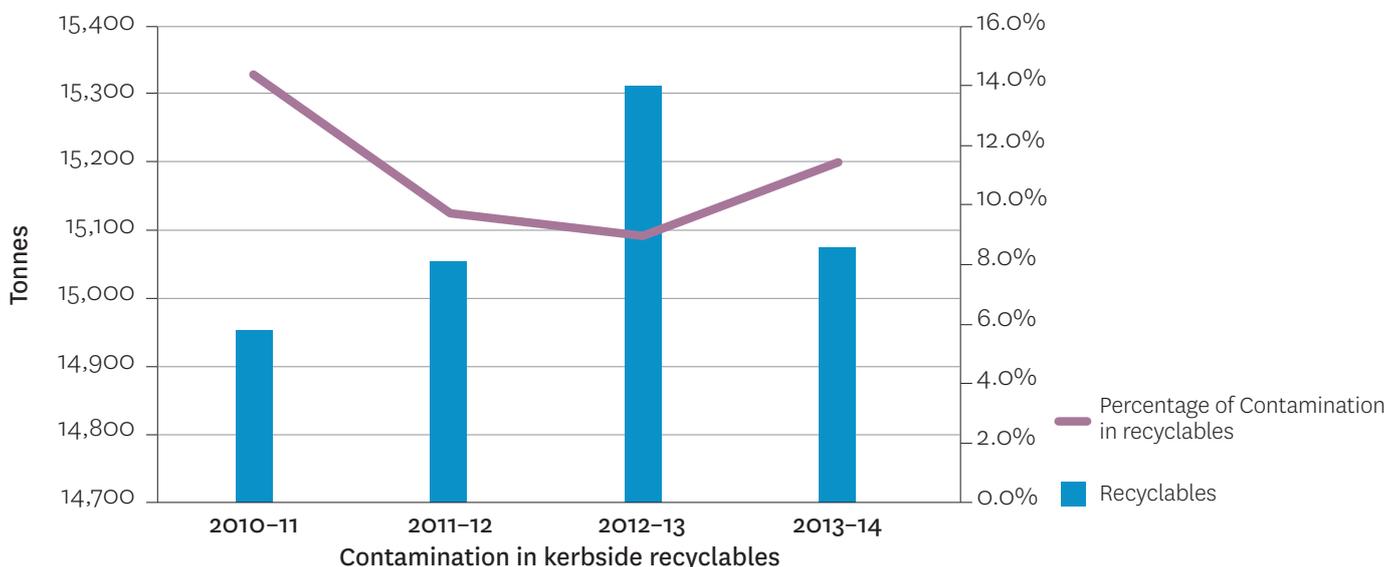
Diagram 7 gives an overview of the kerbside recycling materials collected in Frankston municipality in 2013-14. Approximately 8,588 tonnes of paper and cardboard were collected, followed by 5,032 tonnes of glass, 2,068 tonnes of plastic, 298 tonnes of steel and 126 tonnes of aluminium. All of these materials were recycled, keeping precious resources out of landfill.

In 2015, the material in Frankston City Council's kerbside recycling bins was taken to Polytrade Recycling Materials Recovery Facility (MRF) in Dandenong South. This facility separates and sorts all the materials and reprocesses them for manufacturing.

On average, Frankston City households produce approximately 22 kilograms of recyclable materials each month. In 2014, the average contamination rate for Frankston City's 240 litre recycling bin was 11.4%, which has improved considerably since 2011 when it was 14.4%. Although this is low compared to some councils, it represents that further improvements can still be made to reduce contamination in the recycling bin.

Diagram 8 shows that from 2010-11 to 2012-13, Frankston City residents both recycled more and contaminated less. In 2014, fewer materials were collected in the kerbside recycling bin and contamination increased slightly.

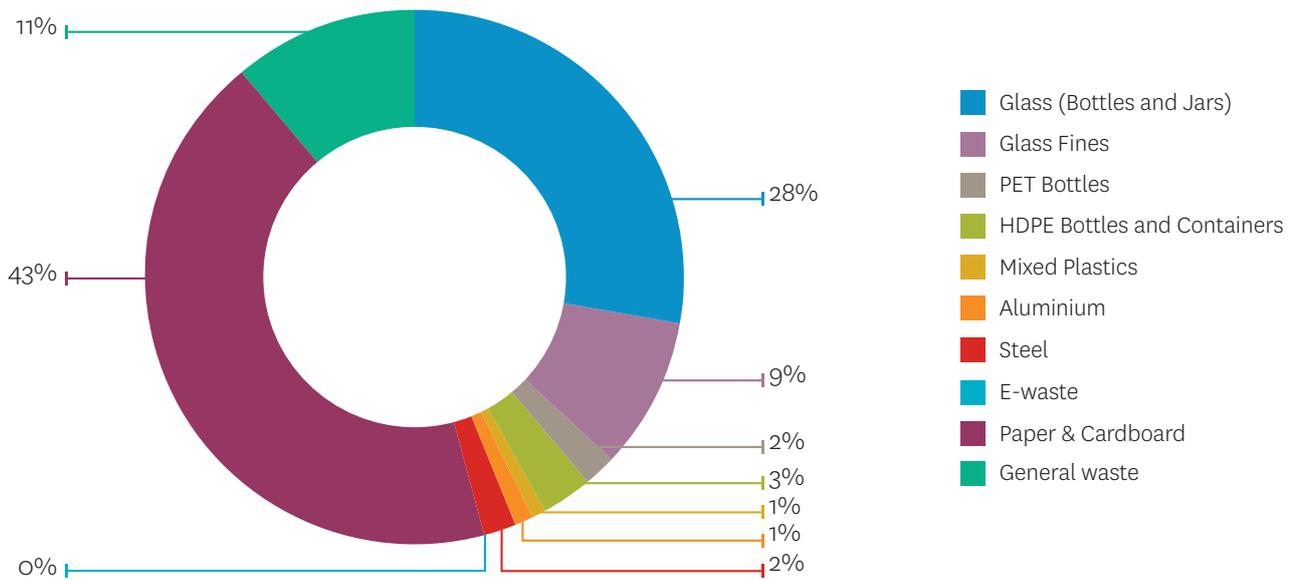
Diagram 8 Total tonnes collected from Frankston City's kerbside recycling service and contamination rates 2010-11 to 2013-14



8.5 Composition of Recycling Bins

Diagram 9 shows the composition of an average Frankston City kerbside recycling bin. The largest percentage is comprised of paper and cardboard (43%), followed glass bottles and jars (28%) and general waste (11%). Common contaminants in the recycling bin include bagged recyclables, e-waste, clothing/textiles and non-recyclable plastics such as soft plastics.

Diagram 9 Composition of an average Frankston City kerbside recycling bin by weight (2014-15)



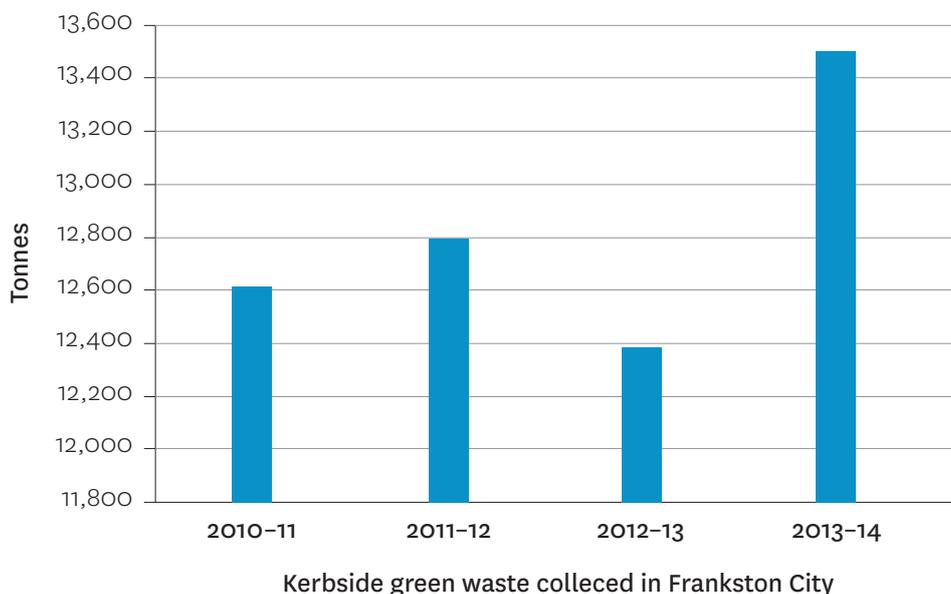
8.6 Kerbside Green Waste

Frankston City Council provides a kerbside green waste collection service, to collect garden organics. It is a ‘user pays’ service and it is an optional addition to the kerbside garbage and recycling bins. In 2013-14, 64% of Frankston City households utilising the kerbside garbage collection service also chose the optional user pays green waste service.

Council’s kerbside green waste materials are composted to Australian Standards and used to create compost, mulch and soil conditioners which return carbon and other vital nutrients back into the soil.

In 2016, Council plans to participate in the South Eastern Organics Processing Contract to establish facilities in the south east of metropolitan Melbourne to increase the recovery, processing and beneficial use of the organic waste (garden and food). However, until such time that a facility in the south east region opens; there are limited options for processing large volumes of Frankston City’s food waste.

Diagram 10 Frankston City’s kerbside garden organic waste processed into compost (tonnes) 2010-11 to 2013-14



In 2010-11, Council collected 12,613 tonnes of green waste (garden organics) from Frankston City households, through the kerbside green waste collection service. In 2013-14, this increased to 13,498 tonnes, an increase of 7% over the four years. This is a positive outcome for Frankston City, as the gardens organics is converted into compost and keeps this valuable resource out of landfill.

The contamination rates of Frankston City’s kerbside green waste bin are very low. Audits conducted in 2011 showed a contamination rate of 2.3%, in 2013 contamination rates were 0.9% and in 2014 contamination rates were 2.1%.

8.7 Hard Waste

Annual Hard Waste Collection

Frankston City Council currently offers residents one annual blanket hard waste and bundled green waste collection service at no cost, and one subsidised at-call collection. Additional at-call collections are available at full cost. Items collected through the kerbside hard waste collection service include whitegoods and metals, televisions and computers, general household furniture and mattresses (with mattresses at an additional cost).

The tonnages collected through Frankston City’s annual hard waste collection service, from 2010-11 to 2013-14 are outlined in Table 5 below. In 2013-14, Council collected 4,791 tonnes of hard waste from the annual collection. Of this amount, 14.8% was either reused or recycled, representing a diversion rate of 14.8%.

Since 2010-11, the Frankston City community has increased the amount it disposes through the City’s annual hard waste collection from 3,915 tonnes to 4,791 tonnes, an increase of 22%. This in part corresponds to the closure of the former Waste Transfer Station in 2010.

Table 5 Frankston City's annual hard waste collection (tonnes) 2010-11 to 2013-14

Waste Stream	2010-11	2011-12	2012-13	2013-14
Residual	3,256	3,897	3,557	4,083
Garden organics	103	111	124	116
Metal	383	271	270	229
Mattresses	172	127	149	153
Refrigerators	-	13	8	16
E-waste	-	243	86	194
Other Recycling	-	-	-	-
Total Annual Hard Waste	3,915	4,662	4,195	4,791
Annual Hard Waste diversion rate	16.8%	16.4%	15.2%	14.8%

At-call Hard Waste Collection

Tonnages collected through Frankston City's at-call hard waste collection, from 2010-11 to 2013-14, are shown in Table 6.

Table 6 Frankston City's at-call hard waste collection (tonnes) 2010-11 to 2013-14

Waste Stream	2010-11	2011-12	2012-13	2013-14
Residual	81.1	179.5	235.2	374.6
Green Waste	-	1.34	0.9	2.4
Metal	-	41.3	43.5	69.7
Mattresses	-	0.5	2.3	5.8
Refrigerators	-	5.9	4.6	12.3
E-waste	-	5.4	10.2	15.9
Other Recycling	-	0.2	0.2	3.3
Total At-call Hard Waste	81.1	234.1	296.9	483.9
At-call Hard Waste diversion rate	0%	23.3%	20.8%	22.6%

Since 2010-11, the Frankston City community has increased the amount it disposes through the City's at-call hard waste collection from 81 tonnes to 483 tonnes in 2013-14, an increase of 496%. There may be several factors that have influenced such a large increase in tonnages.

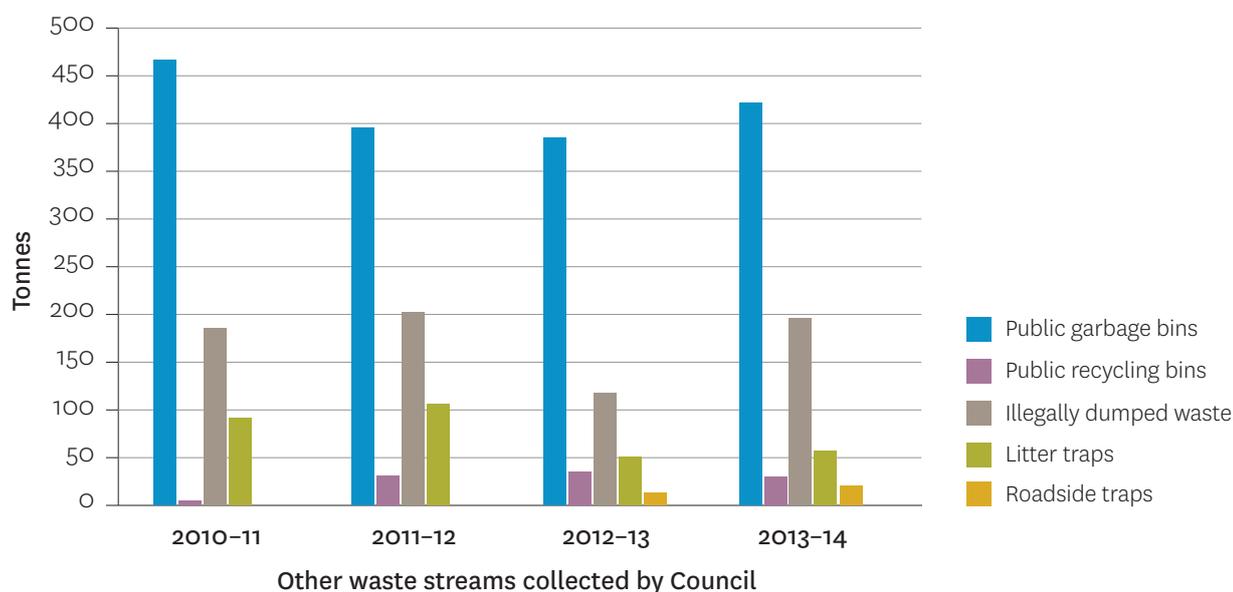
Frankston’s former Waste Transfer Station was closed in 2010 due to the construction of Peninsula Link. With this disposal option removed, it meant that residents depended on their hard waste collection to dispose of excess waste materials. The increase in tonnages also might include factors such as inconsistent data keeping, increased prosperity in Victoria and the increased cost of waste disposal through landfill levies.

In 2013-14, Council collected 483 tonnes of hard waste from the at-call collection service. Of this amount, 22.6% was diverted from landfill, either reused or recycled. The diversion rate is higher for at-call collection compared to the annual hard waste collection. This may be due to materials being left on the nature strip for long periods of time during the annual collection, which can result in people collecting the recyclable materials (such as steel) before the hard waste collection contractor, who would then record lower recovery rates.

8.8 Other Waste and Recycling Services

Frankston City Council manages waste from other streams, such as public place garbage and recycling bins, illegally dumped materials, litter, as well as Council’s operational waste.

Diagram 11 Tonnes of “other” types of waste collected by Frankston City Council 2010-11 to 2013-14



In 2013-14, Council collected 725.5 tonnes of waste from ‘other’ waste streams (Diagram 11), of which 58% was collected from Council’s public place garbage bins, 27% from illegally dumped materials, 8% from gross litter traps, 4% from public place recycling bins and 3% from roadside litter.

To reduce the incidence and impact of litter on the municipality, Council plans to review its Litter Prevention Action Plan in 2016.

8.9 Illegally Dumped Rubbish and Roadside Litter

Illegally dumped rubbish and roadside litter is an increasing problem for Frankston City Council, as well as other local government organisations across Victoria (see *Section 9: Waste Challenges*). Illegal dumping occurs on roadsides, the foreshore, nature strips, near waterways, laneways and in our parks and open spaces.

Increases in waste disposal costs (such as Victorian Landfill Levy) and the availability of inexpensive goods with short life spans also contribute to illegal dumping. Dumping is also common near multi-unit dwelling (MUD) developments, especially when a tenant moves out.

The cost of managing illegal dumping has a significant impact on Frankston City Council and its local communities. Not only can illegal dumping impact on

the environment, particularly through the illegal disposal of hazardous materials, it is also a significant cost to Council. In 2013-14, Council spent approximately \$396,000 on managing illegal dumping. The cost has risen steadily from 2011, when Council spent approximately \$266,000 (an increase of 49%).

On average, Council receives 126 customer service requests per month for the removal of illegally dumped rubbish and roadside litter. In 2014, Council issued 108 penalties for illegally dumped rubbish in the community. Council collected the following tonnes of dumped rubbish from 2010-11 to 2013-14:

Diagram 12 Tonnes of illegally dumped rubbish collected by Frankston City Council 2010-11 to 2013-14

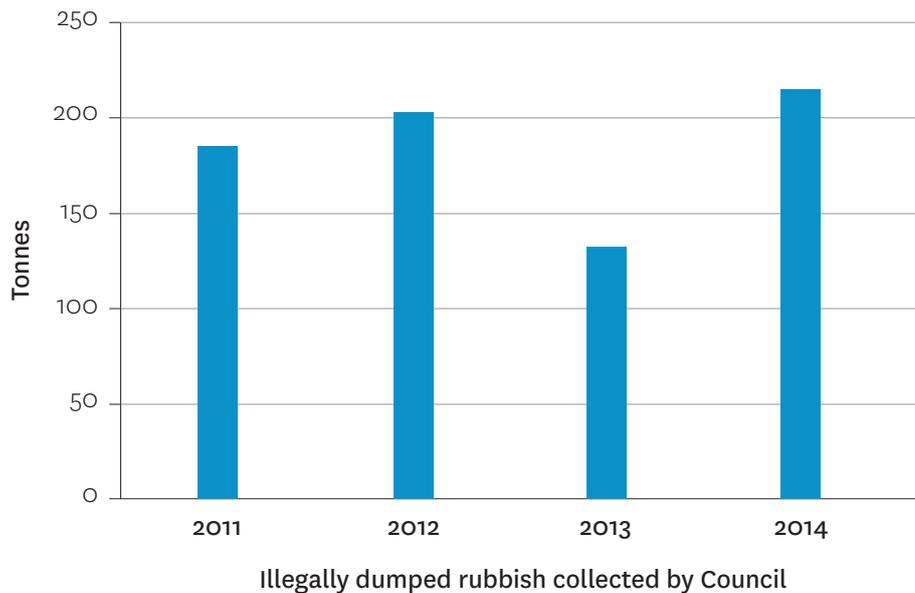
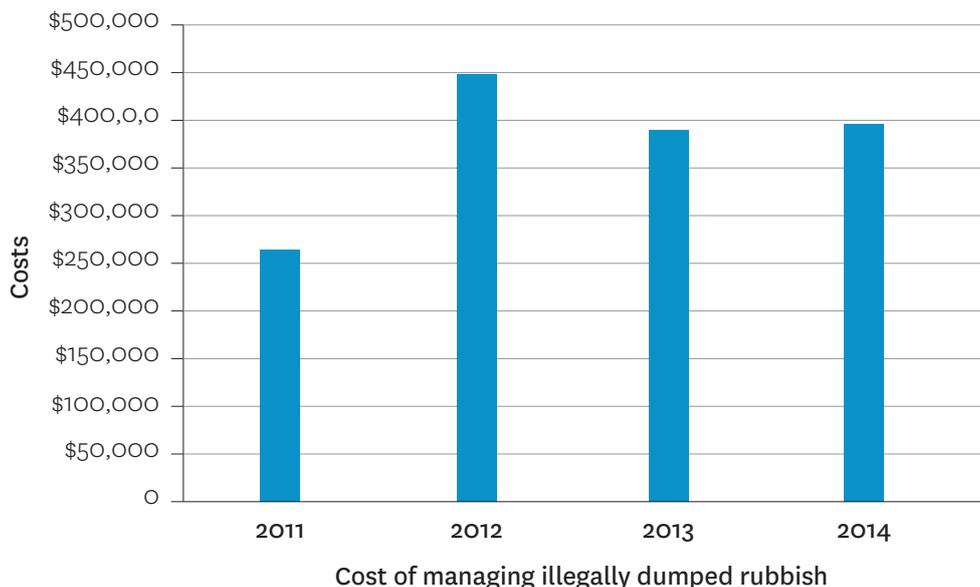


Diagram 13 Frankston City Council's costs of managing illegal dumping in Frankston City 2010-11 to 2013-14



Dumped rubbish and littering is the result of a complex array of social and economic factors. Lack of awareness, unwillingness to pay for disposal, and anti-social behaviours are just a few of the reasons behind dumping and littering.

Reducing the amount of illegal dumping and littering include a combination of actions such as providing the services and options for alternative disposal (e.g. resource recovery), education to raise awareness, social marketing to introduce positive social norms, as well as enforcement. Another important feature is building knowledge through research and data collection, particularly for measuring performance. These issues will be further addressed in the development of Council's Litter Prevention Action Plan.

8.10 Other Waste Services for the Frankston City Community

Frankston Regional Recycling and Recovery Centre (local waste transfer facility)

Council is currently constructing a new Frankston Regional Recycling and Recovery Centre (FRRRC) in Skye to support the reduction of Frankston City's waste and the recovery of important resources. The new facility, expected to open in October 2015, is a result of feedback from the community who identified it as a major priority for Frankston City.

Council has invested \$12.3 million dollars to provide residents and the surrounding community with this new modern local waste transfer facility.

Specialty Recycling

In addition to the kerbside garbage, recycling and green waste collection service, Frankston City Council supports a number of initiatives to encourage the recycling of specialty materials, which cannot be recycled in the kerbside recycling bin collection.

a) Specialty Recycling Hubs

In response to community demand, Council is conducting a trial of Specialty Recycling Hubs in the Civic Centre and Frankston Library. The Hubs accept a number of household items for recycling, including household batteries, light globes, mobile phones, soft plastics, x-rays, cassette tapes and CDs / DVDs. Whilst the Hubs have become increasingly popular and used regularly by residents, Council often struggles to find alternative sustainable end markets for the materials that are collected.

b) Recycling and Safe Disposal Directory

Council developed the innovative *Frankston City Recycling and Safe Disposal Directory* in 2012 to provide the community with localised information on where to recycle, reuse and dispose household items and materials which are best kept out of the kerbside bin system. The *Directory* is available on Council's website. See: frankston.vic.gov.au The *Directory* is a popular resource and includes comprehensive information on recycling and disposal alternatives for items such as bicycles, batteries, plastic bags, timber and whitegoods.

c) Detox Your Home

Council holds one mobile Detox Your Home – Household Chemical Collection Day per year, in association with Sustainability Victoria. Residents from Frankston municipality and nearby councils are able to drop off unwanted household chemicals, which ensure this waste is disposed of safely. In 2014, approximately 247 residents (147 from within Frankston City) utilised this service.

In 2014, the Victorian Government discontinued the collection of household paints, batteries and fluorescent lights as part of the mobile collection. In line with this change, participation rates in the annual day has decreased (for example, 247 residents in 2014, compared to 680 participants in 2012).

Community Education

In addition to providing infrastructure and services to manage waste and recycling, it is also Council's responsibility to provide education to the Frankston City community about using the infrastructure and services correctly.

a) Communications

Council uses a variety of channels to communicate waste minimisation and recycling messages, including an Annual Recycling and Garden Waste Collection Calendar, Recycling and Green Waste Guide, fact sheets, an environmental workshop series, articles in Frankston City

News, Enviro News e-newsletter, local newspaper articles, hard waste brochures, as well as Council's website and social media.

b) Community Workshops

Council regularly hosts free community workshops on waste minimisation topics. The workshops are well attended throughout the year. Past workshops have included Follow Your Waste tours, composting and wormfarming, resourceful gardening, modern cloth nappies, frugal cooking and ethical shopping. The workshops connect like-minded people together and help to provide useful tips and resources to reduce waste and encourage resource recovery.

c) Halve our Waste (HOW) program

The Halve our Waste program is aimed at reducing household waste. The program is targeted at Frankston City families and large households that have potential to significantly reduce their waste, including reducing food waste and improving recycling. Utilising State Government grant funding through the MWRRG, 1000 households are taking part in the HOW program which includes households receiving either a free compost bin or subsidised worm farm, a free kitchen caddy, educational resources (including composting workshops) and an optional fortnightly collection of their garbage bin. The program was also delivered to schools and preschools. Preliminary results have shown that the program supported the reduction of household waste by 13%; however, it has not been as effective in reducing food waste.

d) Bin Cop

Council employs the services of a 'Bin Cop', a contractor who examines Frankston City's household garbage, recycling and garden organics bins for contamination and places rejection or warning stickers on bins if contamination is found. The stickers also aim to inform the household to discourage contamination occurring again. The Bin Cop operates ten days per month and checks nearly 30% of Frankston City household bins every year.

e) Schools support

Council provides support to local schools to assist them in the waste reduction efforts. Limited seed funding is available each year to help schools embed waste minimisation activities into their school curriculum (e.g. sponsorship for ResourceSmart Schools program). Council also provides each school with two free recycling bins and a collection service, to help schools commence their waste reduction journey.

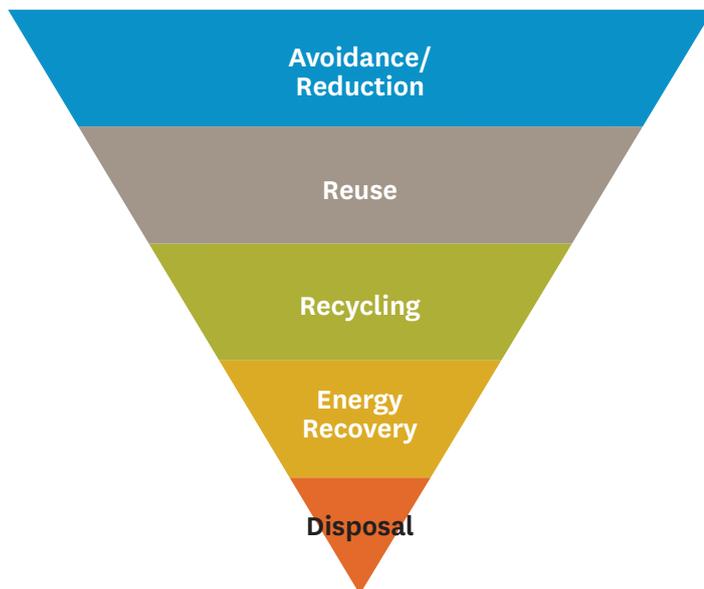
9 WASTE CHALLENGES

Historically, the principal waste management responsibility of local governments has been to protect human and environmental health. Of more recent times, however, there has been a drive towards environmental sustainability, which entails reducing the generation of waste, recovering more waste and managing hazardous wastes better.

Similar to most local governments, Frankston City Council faces the challenge of how to move towards environmental sustainability in a way that is also cost-effective and

provides best value for the community. Frankston City also has specific local issues, such as a lack of local resource recovery infrastructure.

In exploring the waste challenges facing Frankston City, it is important to understand the following waste hierarchy which is commonly adopted by governments across Australia as the ideal structure for moving towards sustainable resource management.



The waste hierarchy

The most preferable management option is to **avoid** or to **reduce** the generation of waste in the first place.

If the waste cannot be avoided, then the next best option is **reuse**, where the item or material is used again without changing form.

Recycling, which usually requires additional input of energy, water and raw materials, is the next preference.

Avoidance and reduction of waste

While avoiding and reducing waste is preferable, local governments have traditionally spent more on recycling rather than waste avoidance and reduction. This is because local governments have far less control and influence over reducing waste generation – which is a complex issue involving a number of stakeholders, including manufacturers, retailers and consumers.

Councils have little power to manage residents' consumption and disposal; however they do have the ability to educate and provide resources to their communities in order to empower more sustainable choices.

As each Frankston City household generates around 1,057 kg of waste per year, plus unknown quantities of waste from commercial and construction sources, much more needs to be done to slow the generation of waste or exploit reuse opportunities.

Reuse

The Frankston City community already has a strong culture of reuse – through private garage sales, charity shops, community organisations such as Men’s Sheds and the use of online auctions, classifieds and giveaway sites.

Council has developed an online resource, the *Recycling and Safe Disposal Directory*, which provides local alternatives to disposal for a number of items and materials. However, Council can do more to encourage reuse through investigating and supporting reuse options for the new Frankston Regional Recycling and Recovery Centre, facilitating existing and upcoming reuse organisations and initiatives, and continuing to examine reuse opportunities associated with the hard waste collection.

Recycling and energy recovery

Frankston City is currently recovering over 50% of its kerbside collection materials. Landfill disposal is far less preferable than recovery, for a number of reasons:

- Organic waste (such as food and garden waste) creates carbon dioxide and methane when it breaks down in a landfill environment, which are both potent greenhouse gases contributing to climate change.
- The energy, water and raw material used to create an item or material is lost.
- Landfills can be unpleasant for nearby residents, due to odour, vermin and loss of visual amenity or land that could be used for other more productive purposes.
- In order to encourage recycling, the Victorian Government charges a levy on all waste disposed to landfill. Introduced at \$2.00 per tonne in 1992, the levy reached \$58.50 per tonne (for the metro area) for the 2014-15 period, which has significant financial implications to Council and its community.

Ways to increase resource recovery include:

- Improving recycling (not putting recyclables in the garbage bin and not contaminating the recycling bin with garbage). For example, approximately 17.8% of an average kerbside garbage bin in the Frankston municipality includes recyclable items that are considered a lost resource.
- Collecting food waste for processing into compost.
- Processing of mixed garbage to recover recyclables and organic material.
- Recovery of energy from mixed waste through an energy-from-waste facility.

There are currently no facilities within the Frankston City area which can process large volumes of food waste, mixed waste or recover energy. However, Council is taking part in a tendering process with a number of other councils in the south east for facilities which will be able to process combined food and garden waste into compost. With the timeline dependent upon the relevant planning approvals and construction process, this tender will provide Council with the option to collect combined food and garden organics in the future.

Food waste

A large percentage of materials in Frankston City’s kerbside waste bins is made up of food waste. Approximately 33% of an average kerbside garbage bin in the Frankston municipality is made up of food waste and 66% of it is unnecessarily discarded.

Understanding why avoidable food waste occurs will play a key role in waste reduction and recovery in the future.

Specialty recycling and problem wastes

There are many items which are able to be recycled but cannot be recycled through the kerbside recycling bin. Examples include e-waste, batteries, fluorescent globes, polystyrene and soft plastics.

Some of these items are hazardous and should not be placed in any kerbside bin, such as household chemicals, batteries, gas bottles and e-waste.

Council is working on providing disposal and recycling alternatives for these items. Council currently supports an annual Detox Your Home Household Chemical Collection event and is trialling Specialty Recycling Hubs in the Civic Centre and Frankston Library.

Feedback from the community has shown that Council and the Victorian Government need to investigate how to make alternatives more accessible and to better advertise the existence of alternatives and the importance of using alternatives. However, until certain industries are encouraged and develop to manage the reuse and recycling of specialty waste, it can be difficult for Council to source local suppliers.

Business and industry have a shared responsibility with government agencies to lessen or mitigate the environmental impacts of their products. Product stewardship means this responsibility is taken either voluntarily or by regulation and can focus on different stages in a materials life, from purchase to disposal.

The Australian Government introduced the *Product Stewardship Act 2011* to provide a framework to manage product stewardship schemes. National schemes have already been established for televisions and computers. In Victoria, Sustainability Victoria has initiated a number of product stewardship programs for products including: computers, batteries, paint and fluorescent lights. To effectively manage waste and enhance resource recovery into the future, these programs and schemes will need to extend to many more products.

Local drop-off facility (waste transfer facility)

In 2010, Frankston City's Waste Transfer Station closed due to the construction of Peninsula Link. The closest alternatives are in Hallam, Tyabb and Mornington, and are inconvenient for Frankston City residents. Whilst residents currently have access to an annual blanket hard waste collection and an at-call hard waste collection (for a subsidised fee), the community retains the expectation that Frankston City needs a local drop-off facility.

Council has therefore committed to the development of the new Frankston Regional Recycling and Recovery Centre (FRRRC) in Skye, to support the reduction of Frankston City's waste and the recovery of important resources. The new Centre is scheduled to open in October 2015.

Litter and Illegal Dumping

Litter can be a big problem in Frankston City's open space and foreshore areas, especially during peak times such as events and summer. Apart from making Frankston City's beautiful areas look uncared for, litter is also dangerous to animals, birds and sea life.

Illegal dumping is also a big issue for Frankston City. Most illegal dumping incidents arise when householders place hard waste on the nature strip for collection at the wrong time and when tenants move out of their house and leave hard waste behind. Council also investigates and cleans up dumping of construction material and garbage placed in streets by residents.

Apart from placing a significant drain on Council resources, illegal dumping makes areas look unkempt and can also present significant hazards to the community and the environment, such as when asbestos is inappropriately disposed of.

Multi-unit dwelling Developments (MUDs)

Over 80% of Frankston City's population lives in a house, with the remaining population living in multi-unit developments (i.e. apartments, semi-detached houses and/or townhouses).

Frankston City's population living in multi-unit dwelling developments is predicted to sharply increase to 45% of all dwellings by 2031.

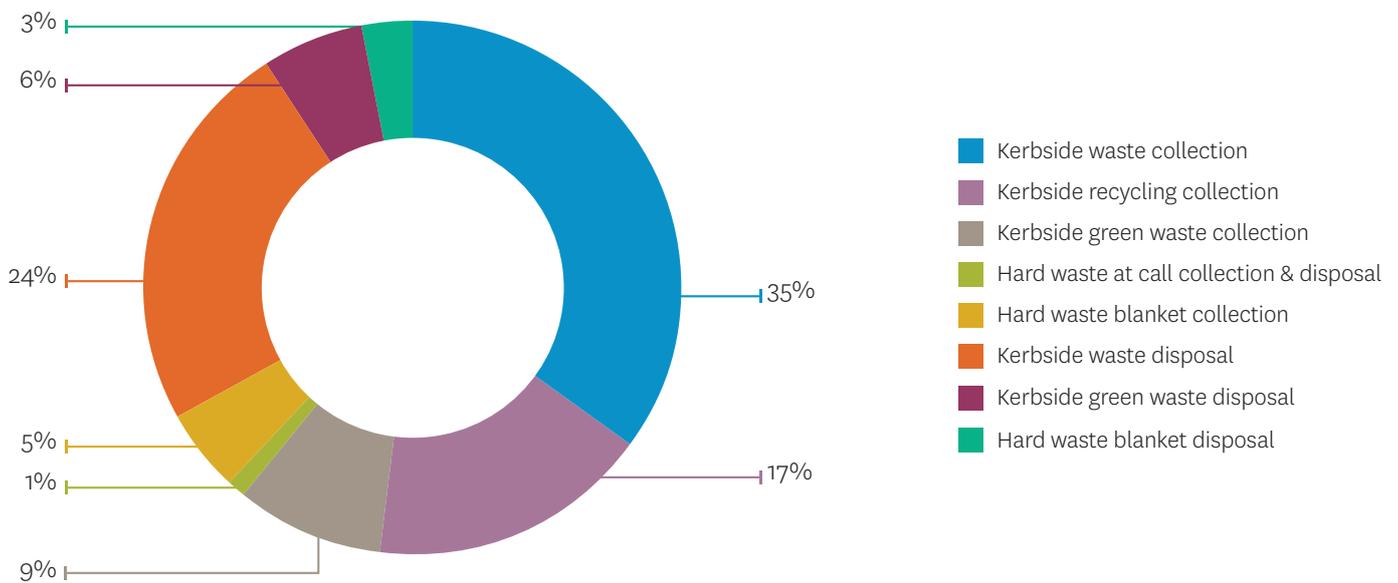
This type of housing presents challenges including lack of space for the storage of multiple bins and traffic congestion when waste disposal trucks collect from narrow streets.

10 FINANCIAL CONSIDERATIONS

Current waste management costs

The proportion of Frankston City Council's projected kerbside waste management collection and disposal costs for 2015-16 are outlined in Diagram 14 below. The greatest proportion of costs relate to the kerbside waste and recycling collection (52% combined), followed by kerbside waste disposal (24%).

Diagram 14 Proportion of Frankston City Council's kerbside collection and disposal costs (2015-16)



Future costs – New actions

Financial considerations of Council's *Waste Minimisation and Management Plan* have taken into account the additional resources that may be required over the next five years to implement the recommended actions of the *Plan*. These cost projections are outlined below and reflect current day estimates.

Five Year Cost Projection – Implementation of the Waste Minimisation and Management Plan				
Year of completion	High priority Actions	Medium priority Actions	Low priority Actions	TOTAL
1	\$2,500	\$20,000		\$22,500
2	\$2,500	\$115,267	\$25,000	\$142,767
3	\$32,500	\$11,667		\$44,167
4	\$2,500	\$56,667		\$59,167
5	\$2,500	\$15,000		\$17,500
SUB-TOTAL	\$42,500	\$218,600	\$25,000	\$286,100

The new actions that are currently unbudgeted for and that may result in an increase to Council’s budget, will be assessed on their merit at the time of further planning, in consultation with Council. Should Council implement all of the actions (high, medium and low) within the *Plan*, the total estimated cost will be \$286,100. This additional cost is expected to be offset by the savings in landfill disposal costs, as a result of achieving the *Plan*’s waste reduction targets (see discussion under ‘Expected savings’ section below). However, if the actions do not deliver best value to the community over the life of the *Plan*, then Council may choose to cease or modify the action accordingly.

Expected savings

Diagram 15 Modelling of changes to Frankston City’s kerbside garbage waste tonnages (three scenarios) and impact on landfill disposal costs 2015-16 to 2019-20

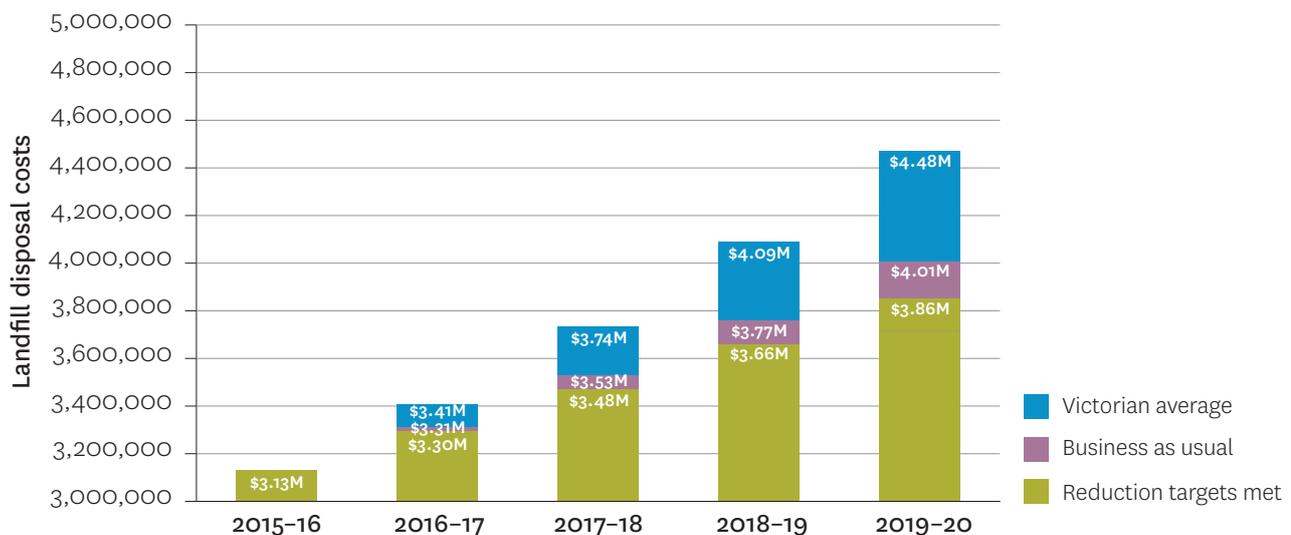


Diagram 15 shows the estimated costs associated with changes to Frankston City's kerbside garbage waste tonnages over time. The diagram shows three different scenarios over the life of the *Plan* including:

- Scenario 1 - Meeting the 'kerbside garbage waste to landfill' reduction targets, by implementing the actions as outlined in the *Plan* (see *Section 13: Targets and Measures* and *Section 14: Action Plan*)
- Scenario 2 - Business as usual – no change to current service
- Scenario 3 – Reducing Councils current waste minimisation initiatives, leading to an increase to the Victorian average.

The costs are estimated based on predictions of landfill levy increases, disposal cost increases and the forecasted increase in waste tonnages due to the expected rise in Frankston City's population.

While each scenario shows an increase in costs, there is a significant difference in costs between meeting the *Plan's* kerbside garbage waste reduction targets versus business as usual, or, worst case scenario, of increasing 'kerbside garbage waste to landfill' tonnages to the Victorian average (see Table 7 below).

Table 7 Comparison of changes to Frankston City's kerbside garbage waste tonnages (three scenarios) and impact on landfill disposal costs 2015-16 to 2019-20

Scenarios	2015-16	2016-17	2017-18	2018-19	2019-20
1. Achieving kerbside garbage waste reduction targets (kg / tenement / week)	8.5	8.4	8.3	8.2	8.1
Tonnages (waste to landfill)	25,200	25,165	25,127	25,085	25,039
Landfill disposal costs	\$3,134,143	\$3,301,930	\$3,478,208	\$3,663,364	\$3,857,802
Total landfill disposal costs (estimate)	Scenario 1 (2015-16 to 2019-20): \$17,435,447				
2. Business as usual (kg / tenement / week)	8.4	8.4	8.4	8.4	8.4
Tonnages (waste to landfill)	24,993	25,255	25,521	25,788	26,059
Landfill disposal costs	\$3,108,332	\$3,313,723	\$3,532,685	\$3,766,117	\$4,014,972
Total landfill disposal costs (estimate)	Scenario 2 (2015-16 to 2019-20): \$17,735,829				
3. Increasing to Metropolitan Melbourne average (kg / tenement / week)	8.4	8.7	8.9	9.2	9.4
Tonnages (waste to landfill)	24,993	25,982	26,989	28,014	29,058
Landfill disposal costs	\$3,108,332	\$3,409,047	\$3,735,930	\$4,091,128	\$4,476,956
Total landfill disposal costs (estimate)	Scenario 3 (2015-16 to 2019-20): \$18,821,393				

Table 7 shows that over the life of the 5 years of the *Waste Minimisation and Management Plan*, if Council were to achieve its kerbside garbage waste reduction target (scenario 1), it would spend an estimated \$17.43M on landfill disposal costs for kerbside garbage. Alternatively, if Council were to continue business as usual (scenario 2), with no change to the current service (and not deliver the *Waste Minimisation and Management Plan*), it would spend an estimated \$17.73M on landfill disposal costs for kerbside garbage. In comparison, should Council reduce its current waste minimisation initiatives, the kerbside garbage waste would likely increase to the Metropolitan Melbourne average of 9.4 kg per household per week (scenario 3), and Council would spend an estimated \$18.82M on landfill disposal costs for kerbside garbage. This equates to an additional \$300,382 in landfill disposal costs over the life of the *Plan* when comparing scenarios 1 and 2, or \$1.38M when comparing scenarios 1 and 3.

It should be noted that scenario 1 represents the cost savings of landfill disposal costs over the five years of the *Waste Minimisation and Management Plan*; however, it does not address the continuing additional savings after the *Plan* is completed. It is expected that these savings will continue beyond the life of the *Plan* and that further waste reduction initiatives will compound these savings further.

In conclusion, the estimated cost of delivering the actions in the *Waste Minimisation and Management Plan* is \$286,100 (see previous discussion). The expected landfill disposal cost savings from achieving the targets in the *Plan* are \$300,382. Actions within the *Plan* have been developed with the best available data in order to achieve the targets over the life of the *Plan*. Therefore, the commitments in the *Waste Minimisation and Management Plan* could essentially be cost neutral, should Council choose to implement all recommended actions.

11 OPTIONS ASSESSMENT

This Options Assessment considers and recommends actions to be undertaken by Frankston City Council under the three focus areas of the *Waste Minimisation and Management Plan*. These are:

- Best practice and cost-effective infrastructure and services
- Reducing waste generation through waste avoidance and reuse
- Increasing resource recovery

The recommendations contained within this Options Assessment have informed the *Waste Minimisation and Management Plan*. The Options Assessment was undertaken by Hyder Consulting to inform the review of current kerbside waste, recycling and garden organic services³.

It is important to note that whilst the Options Assessment provides information to inform Council's future waste minimisation and management services, the Assessment included a number of assumptions and limitations which may impact on the reliability of the data.

11.1 Best practice Infrastructure and Services

The core components of Council's waste minimisation and management services are:

- residential kerbside garbage, recycling and green waste 'garden organics' service
- residential kerbside hard waste annual blanket and at-call collection service
- the Frankston Regional, Recycling and Recovery Centre (FRRRC - in development)

- public place bin infrastructure and waste and recycling collection
- investigation, enforcement and clean-up of illegal dumping
- cleaning of public areas, including streets and beach areas
- management of closed landfills
- education and communication about waste minimisation and recycling
- investigation and procurement of long term solutions for disposal of Frankston City's waste and recyclables through regional collaboration
- evaluating waste management plans from planning applications

In addition to the above core services, Council also offers the following services:

- Residential kerbside green waste (garden organics) collection (optional for residents at an additional cost)
- Commercial kerbside garbage, recycling and garden organics collections (offered at a commercial rate)
- Provision for specialty recycling - Specialty Recycling Hubs in the Civic Centre and Frankston Library and an annual Detox Your Home event (through Sustainability Victoria)

Using information gained through consultation during the development of this *Waste Minimisation and Management Plan*, the following assessment has been conducted of Council's waste infrastructure and services in order to identify opportunities to achieve best practice.

3. Kerbside Service Analysis and Hard Waste Analysis Reports, Hyder Consulting, June 2015

11.2 Hard Waste

Management of hard waste in Frankston City is perhaps the most topical current issue in waste management. A number of respondents to the community survey undertaken to inform the development of the *Waste Minimisation and Management Plan*, called for an additional hard waste collection per year, and one of the most common themes in the survey was the desire for a waste transfer station in the area.

The Local Government Community Satisfaction Survey conducted in 2011 (by Wallis Consulting Group) showed that the top three areas in which Frankston City Council's waste management service needed to improve were:

- Better location of tip / transfer station (or closed tip) – 56% of respondents
- More consistent / lower fees for tips – 23% of respondents
- More frequent hard waste collections – 19% of respondents

While there is a demand within the community for more hard waste services, the Kerbside Waste Annual Survey 2014 (conducted by AFS smart askers) showed that nearly one-third of the survey respondents were unaware that Frankston City Council offers a subsidised 'at-call' service.

Current Service			
Frankston City Council currently offers its residents an annual blanket hard waste collection service at no additional cost. Each household is allowed to put out up to 2 cubic metres of hard waste materials. Council also subsidises one additional collection at the cost of \$50 and further collections for \$70.			
Future Options			
Hyder Consultants were commissioned by Council to undertake investigations into different types of hard waste services and provided a cost summary for each option. Tonnage rates are assumptions as it would be difficult to predict how residents might be affected by changes to the service.			
For each option a Low Tonnage Model and a High Tonnage Model were considered. The Low Tonnage Model is based on an estimate of 94 kilograms produced per household per year. This equates to a total of 5,565 tonnes of hard waste collected in a year. The High Tonnage Model was based on each household producing 246 kilograms of hard waste per household per year. This equates to a total of 14,511 tonnes of hard waste collected in a year.			
Figures in brackets in each table represent a cost saving to Council.			
Options for Low Tonnage (94kgs per household per year)	Cost	NPV over 5 years 8% discount	Tonnages 2015-2016 (waste to landfill)
1. Business as usual	\$1,054,656	\$4,658,031	4,341
2. At-call, subsidised, low participation	(\$127,878)	(\$564,792)	3,618
3. At-call, subsidised, high participation	\$479,353	\$2,117,125	3,840
4. Remove blanket and at-call collection	(\$195,348)	(\$862,782)	3,618
5. One free at-call or free drop-off at FRRRC	\$2,821,477	\$12,461,430	3,952
6. No at-call, one free tip voucher to all residents	\$1,362,980	\$6,019,783	3,618
7. One free at-call per household (fully subsidised)	\$1,805,937	\$7,976,163	3,952
8. At-call, full costs to residents, low participation	(\$190,959)	(\$843,394)	3,618
9. At-call, full costs to residents, high participation	(\$151,450)	(\$668,899)	3,840

Options for High Tonnage (246kgs per household per year)	Cost	NPV over 5 years 8% discount	Tonnages 2015-2016 (waste to landfill)
1. Business as usual	\$1,260,717	\$5,568,127	10,594
2. At-call, subsidised, low participation	(\$389,049)	(\$1,758,035)	9,433
3. At-call, subsidised, high participation	\$603,607	\$2,665,912	10,013
4. Remove blanket and at-call collection	(\$509,344)	(\$2,249,584)	9,433
5. One free at-call or free drop-off at FRRRC	\$4,819,106	\$21,284,230	10,303
6. No at-call, one free tip voucher to all residents	\$3,553,779	\$15,695,741	9,433
7. One free at-call per household (fully subsidised)	\$2,171,229	\$9,589,523	10,303
8. At-call, full costs to residents, low participation	(\$497,898)	(\$2,199,032)	9,433
9. At-call, full costs to residents, high participation	(\$394,884)	(\$1,744,060)	10,013

Results / Discussion

Hyder Consulting's findings showed that removal of the hard waste service, or option 4, for both low and high tonnage models to be the most cost beneficial to Council. However, this option transfers the full cost of a collection to the resident. This option, as well as options 8 and 9, may also increase the likelihood of illegal dumping, which would impact on Council's costs in managing illegal dumping.

The option which carries the highest cost to Council is option 5, offering Frankston City residents with one free at-call collection or one free drop-off at the Frankston Regional Recycling and Recovery Centre (FRRRC).

Any option requiring waste to be managed through the FRRRC and where a gate fee is to be paid, would be cost beneficial to Council.

When assessing the best option, consideration to community feedback and equity issues must be made. For example, a 2011 Census found that 7% of Frankston City resident do not own a car. Therefore any option (e.g. option 4 and 6) that removes both the blanket and at-call collection could disadvantage these residents, as well as others who may not have access to a vehicle or trailer sufficient in size to transport larger goods (e.g. mattresses, whitegoods).

Recommendations

- *Promote Council's at-call hard waste collection service more widely.*
- *Review Council's hard waste collection services in line with the opening of the Frankston Regional Recycling and Recovery Centre, to ensure cost-effectiveness whilst meeting community needs.*
- *Investigate opportunities to work with local industries, businesses and/or social organisations to increase resource recovery and provide local economic opportunities.*
- *Investigate ways future hard waste contracts can address the collection of hazardous materials being placed on the nature strip.*

11.3 Residential Kerbside Garbage Service

Current Service

Frankston City Council currently provides residents with a green-lidded kerbside garbage bin, collected weekly. Bins are either 80L or 120L with a price differential. Participants of the Halve Our Waste and Halve Garbage Waste programs have the option of a voluntary fortnightly collection which is identified by a red lid.

Future Options

Hyder Consultants investigated different options for providing residents with a kerbside garbage collection service. The following options were assessed:

Options	Combined cost – kerbside garbage & recycling service	NPV over 5 years 8% discount	Tonnages 2015-2016 (waste to landfill)
1. Business as usual. No changes made to the current service	\$6,309,619	\$28,671,335	24,811
2. The kerbside garbage bin collected on a fortnightly basis (instead of the existing weekly service)	\$7,969,196	\$26,190,505	26,672
3. Residents with a 120L bin replaced with an 80L bin 'standardising the size'	\$8,000,052	\$29,898,179	24,041

Results / Discussion

When compared to the business as usual scenario, option 2, "The kerbside garbage bin collected on a fortnightly basis instead of the existing weekly service" is less expensive than option 1 and option 3. This is a result of a saving in collection costs.

For option 3, there is a saving on landfill disposal costs; however, this is negated by the costs of the new bins required, i.e. initial roll-out of a change of bin size from 120L to 80L, therefore the NPV is higher over 5 years. For option 2, there is also an increase in the additional combined cost due to the cost of new bins that would be required (e.g. from 80 to 120L).

In addition, it was found that the diversion rate would not increase under option 2, but may slightly increase under option 3.

A fortnightly collection of garbage should also only be undertaken if a separate service is available to collect food organics. Should Frankston City introduce a FOGO (food and garden organics) collection in the future, then option 2 will become more feasible. However, the possibility of an introducing a FOGO collection could make option 3 less feasible, as 80L garbage bins would be too small if Council introduces a fortnightly collection of the kerbside garbage bin in the future.

Evidence also suggests that fortnightly kerbside garbage collections in other councils can result in increased contamination in both recycling and garden organics bins. In addition, hygiene and odour issues may result due to the putrescible waste component that would need to be effectively managed by residents in option 2.

The key disadvantage of option 3 is the risk of increases in illegal dumping instances, as the 80L bin may not provide some residents (e.g. large families) with sufficient capacity for a week's worth of waste. This could result in increased clean up and enforcement costs to Council.

A pay-by-weight service was also considered, where residents would be charged based on the actual weight of waste collected, however, this technology is not presently available in Australia but could be explored in the future⁴.

Recommendations

- *As the above results show no significant savings, and a number of considerable disadvantages, Council should retain the business as usual scenario in the interim.*
- *Re-assess Frankston City's kerbside services once a separate food and organics collection (FOGO) service becomes available*

4. It should be noted that there are a number of potential issues around this type of service which may make it unsuitable for Frankston municipality, e.g. affordability for large families. Additionally this service has not yet been properly tested in the Australian municipal collections marketplace to understand its appropriateness.

11.4 Residential Kerbside Recycling Service

Current Service

Frankston City Council currently provides every household with yellow-lidded 240L recycling bin collected fortnightly. Residents can choose to have an additional recycling bin at the cost of \$50 per year (2014-15 rates). Households meeting special criteria may apply to have an additional bin for free.

Future Options

Hyder Consultants identified a number of different options and their associated costs for the kerbside recycling bin collection:

Options	Combined cost – kerbside garbage & recycling service	NPV over 5 years 8% discount	Tonnages 2015-2016 (waste to landfill)	Tonnages 2015-2016 (recycling recovered)
1. Business as usual. No changes made to the current service	\$6,309,619	\$28,671,335	24,811	15,257
2. Increase recycling collection from fortnightly to weekly	\$7,287,866	\$32,966,051	24,014	16,020
3. Increase recycling bin size to 360L (from 240L)	\$10,487,333	\$33,193,850	24,014	16,020
4. Business as usual, but providing additional recycling bins to households free of charge	\$6,674,112	\$29,312,838	24,652	15,409

Results / Discussion

None of the alternative options would have a significant impact on the diversion rate and all options (option 2, 3 and 4) are more expensive than business as usual (option 1).

In addition, Council would require improved data on the recycling contamination rate in the kerbside garbage stream and how full the recycling bins are upon collection, to determine whether any of the alternative options are worth further investigation. Dependant on the results of the kerbside audit, it may be more cost-effective for Council to spend more money on recycling education rather than instigate any large, costly changes to the bin infrastructure.

Therefore, further work is recommended before any changes are made to Council's kerbside recycling service.

Recommendations

- Continue to use a wide range of channels (such as Frankston City News, Council's website, waste facility tours etc.) to deliver waste and recycling messages and targeted education.
- Implement State and regional education resources in local communications (such as Get It Right On Bin Night and Back to Earth), where relevant.
- Continue to improve promotion of reuse and recycling alternatives.
- Improve communication around drop-off locations for specialty recycling; maintain the Frankston City Recycling and Safe Disposal Directory and publicise its existence more widely.
- Reassess the recycling contamination rate in the kerbside garbage bin and determine the sufficiency of the recycling bin volume from future kerbside audits.
- Develop the new collections contract/s tender to maximise the value Council receives from the recyclables stream.

11.5 Kerbside Green Waste Collection

Current Service

Frankston City Council provides an optional 240L light green-lidded kerbside green waste (garden organics) bin for an additional cost. Materials collected from this service are currently processed and composted to the Australian Standard.

Future Options

Hyder Consultants compared two alternative scenarios to the current business as usual kerbside green waste collection. Scenarios include:

Options	Cost	NPV over 5 years 8% discount	Tonnages 2015-2016 (green waste recovered)
1. Business as usual. No changes made to the current service	\$3,059,827	\$14,287,975	13,415
2. Mandatory kerbside green waste service	\$1,801,172	\$4,959,576	14,706
3. Provide a 'free' green waste service to all households who do not currently have one and stop charges for those who currently pay for the service	\$8,486,730	\$36,187,366	14,113

Results / Discussion

Findings suggest that there is a significant cost saving in option 2 "Mandatory kerbside garden organics service", when compared to business as usual (option 1), as fees from an additional 36% of households would be collected by Council. However, this option presents equity issues, as households which may not use or need the service, or cannot afford the additional expense, would be required to pay more for the service.

Option 3, "Provide a bin to residents who do not current have one and stop charges for those who do", represents a significant expense to Council as fees would no longer be collected from participating residents.

Both alternative options (options 2 and 3) only achieve marginally higher diversion rates than business as usual, as it is likely that most of the garden organics in the system is currently being captured by the 64% of Frankston City households who already have a kerbside garden organics collection. However, this conclusion is based on the assumption about the quantity of garden organics which is being disposed through the kerbside garbage bin.

It must also be noted that a mandatory garden organics collection service could result in garden organics entering the waste stream, as residents may use this bin to avoid costs of an additional garbage bin, thereby driving up Council's costs in managing contamination and monitoring/enforcement.

It would also be prudent to consider changes to the green waste collection service, once certainty around the future FOGO collection is introduced.

Recommendations

- *Continue business as usual for Frankston City's green waste collection service until a separate food and organics collection (FOGO) service becomes available.*

11.6 Illegal Dumping

As is the case with most local government organisations around Australia, illegal dumping is an issue for Frankston City Council and its communities. Incidences usually relate to the dumping of residential waste – either putrescible or hard waste – with a smaller number of incidences from commercial sources.

It was found that residential dumping generally occurs for the following reasons:

- Residents assume Council will pick up hard waste placed on the nature strip outside hard waste collection times
- Residents place hard waste out at the wrong times, assuming that a hard waste collection in a neighbouring suburb means that it is their turn
- Some residents will dump garbage in back streets if their bins are full
- Tenants move houses and leave unwanted items on the nature strip (this makes it hard to track down the perpetrator)

Illegal dumping may also be aggravated by the lack of a local drop-off centre due to the closure of Frankston City's former Waste Transfer Station, as a result of Peninsula Link.

Illegal dumping around Multi-Unit Developments (MUDs) is a particular issue as it is difficult to trace which resident was responsible.

Addressing illegal dumping at MUDs requires ensuring that waste infrastructure within the building is designed correctly. This needs to occur at the development approval stage. Ongoing education and enforcement is difficult, however some councils within the MWRRG have undertaken projects that incorporate this⁵. Council received a grant from the Victorian Government, through the MWRRG, to trial various approaches in collaboration with the City of Greater Dandenong.

Currently the level of information able to be collected and/or disseminated on illegal dumping incidents by Council is insufficient and therefore prevents remedial actions based on quantifiable data.

Current Service

Currently the level of information collected and/or disseminated on illegal dumping incidents by Council is insufficient and therefore prevents remedial actions based on quantifiable data.

Recommendations

- *Promote Council's current at-call hard waste collection service more widely.*
- *Utilise the research outcomes from the State Government grant project with the City of Greater Dandenong to further address illegal dumping from Multi-Unit Developments.*
- *Continue to use best practice guidelines (e.g. Sustainability Victoria's Guide to Best Practice for Waste Management in Multi-Unit Developments) to assess development applications, in conjunction with Council's guidelines.*
- *Establish a process for recording and monitoring data on illegal dumping and litter, including incident data, infringement notices, materials collected and costs incurred.*
- *Investigate options to strengthen Council's Local Law to manage illegally dumped rubbish, for example, introduce a Local Law to reclaim the cost to Council of removing illegally dumped rubbish from rental bonds.*
- *Review Council's penalty points under the Local Law for littering and illegal dumping, to ensure that the infringement penalty is sufficient for full cost recovery.*

5. MWRRG is planning to draft guidelines and case-studies around addressing illegal dumping and recycling in MUDs.

11.7 Public Place Waste and Cleaning

Community consultation shows that the Frankston City community is concerned with the level of cleanliness of streets, parks and the beach. The Local Government Community Satisfaction Survey conducted for Council in 2011 by Wallis Consulting Group showed:

- 28% of respondents wanted more frequent / better street cleaning
- 13% of respondents wanted more frequent / better removal of litter in parks and gardens

As with dumped rubbish, significant factors prohibiting better prevention and management of litter is the dispersed litter management responsibilities across Council departments.

For instance, the installation of litter traps is the responsibility of the Infrastructure Department, educational programs belong to Sustainable Assets, street sweeping and emptying of waste bins to Operations, and investigation of dumped litter is referred to Community Safety.

Current Service

Currently the level of information collected and/or disseminated on public littering by Council is insufficient and therefore prevents remedial actions based on quantifiable data.

Recommendations

- *Establish a process for recording and monitoring data on illegal dumping and litter, including incident data, infringement notices, materials collected and costs incurred.*
- *Develop a concise litter prevention action plan which outlines data collection, targets hotspots and brings together various Council stakeholders⁶.*

6. A litter strategy template is available here: <http://www.mwrrg.vic.gov.au/local-government/resources-guides-and-templates#litter%20prevention%20strategy>

12 VISION, MISSION AND FOCUS AREAS

Frankston City Council has adopted the following vision, mission, focus areas and key aims for the *Waste Minimisation and Management Plan*.

The aims are supported by a series of actions, which are further broken down in *Section 14: Action Plan*. The action plan outlines the Council priorities, actions, related tasks, responsibilities and resources required over the five years.

Vision	To enhance the sustainability of Frankston City through provision of innovative, creative, socially-responsible and cost-effective services that lead to reduction of waste, recovery of more resources and the empowerment of Council, households and businesses to use resources more efficiently		
Mission	For Frankston City Council to act as a leader in the sustainable use of resources, by providing best practice waste and recycling infrastructure and services, and by inspiring and empowering the community to act more sustainably		
Focus areas	1. Provide the Frankston City community with best practice and cost-effective infrastructure and services	2. Inspire and enable the Frankston City community to reduce waste through avoidance and reuse	3. Demonstrate leadership in resource recovery to conserve resources and divert waste from landfill
Aims	1.1 Ensure that future local waste and resource recovery infrastructure is developed to meet best practice standards, requirements and community needs 1.2 Ensure residential kerbside infrastructure meets community needs and encourages waste recovery 1.3 Ensure future waste contracts maximise environmental outcomes and cost-effectiveness for the community 1.4 Ensure the hard waste collection is cost-effective and meets community needs 1.5 Manage closed landfills in accordance with existing plans and State Government requirements 1.6 Improve infrastructure and services to discourage litter and illegal dumping 1.7 Ensure that Council's activities provide a best practice example to the community	2.1 Improve the reuse of materials and items 2.2 Reduce disposal of food waste and support the community to avoid food waste 2.3 Reduce the impacts of packaging 2.4 Support local businesses and community groups to reduce waste generation	3.1 Increase resource recovery from the residential kerbside waste stream 3.2 Continue to improve recycling education and communication 3.3 Continue to provide and improve both disposal alternatives for problem wastes, and recycling services for specialty items 3.4 Improve recycling in public places 3.5 Support local businesses and community groups to enhance resource recovery

Focus Area 1: Provide the Frankston City community with best practice and cost-effective infrastructure and services

Frankston City Council will deliver waste and resource recovery infrastructure and services to the Frankston City community which are best practice, while remaining cost-effective.

This will involve a number of aims to build upon existing infrastructure and services to ensure they meet Frankston City's waste management and resource recovery needs into the future, as well as adopting creative, innovative and new approaches to address existing issues. These key aims are outlined below.

Key Aims: what we will do

1 Ensure that future local waste and resource recovery infrastructure is developed to meet best practice standards, requirements and community needs.

Future waste and resource recovery infrastructure developed within Frankston City will be designed to ensure that State Government requirements, best practice standards and community needs are met.

2 Ensure residential kerbside infrastructure meets community needs, discourages waste generation and encourages waste recovery.

Ensure the current kerbside bin service encourages resource recovery and discourages waste generation through a review of bin sizing, collection frequencies and the process for issuing additional recycling bins.

3 Ensure future waste contracts maximise environmental outcomes and cost-effectiveness for the community.

Council's waste collection contracts and landfill disposal contracts will need to be renewed during the lifetime of this Plan. Council will ensure the contracts are structured to maximise both positive environmental outcomes and cost-effectiveness.

4 Ensure the hard waste collection is cost-effective and meets community needs.

Once the new Frankston Regional Recycling and Recovery Centre becomes available in Frankston City, the current hard waste collection service will be reviewed to maximise community access to services while remaining cost-effective. Community awareness around the hard waste at-call collection service will also be raised.

5 Manage closed landfills in accordance with existing plans and State Government requirements.

Council will follow the requirements of existing landfill management plans and monitor legal requirements to ensure that closed landfills in Frankston City are managed appropriately.

6 Improve infrastructure and services to discourage litter and illegal dumping.

This action will address pollution issues arising from litter and illegal dumping through improving the strategic framework and data collection and monitoring process for litter and illegal dumping within Frankston City. It will also involve taking action to prevent and discourage illegal dumping, for example, in Multi-unit dwelling Developments (MUDs), and recommends that Council develop a new Litter Prevention Action Plan.

7 Ensure that Council's activities provide a best practice example to the community.

Frankston City Council will act as an example to the Frankston City community by reducing Council's internal waste generation and improving recovery of waste. Council will identify areas for improvement then expand internal infrastructure and services, as well as education and information provision, where appropriate.

Focus Area 2: Inspire and enable the Frankston City community to reduce waste through avoidance and reuse

As reducing waste is the most effective way to conserve resources, reduce pollution and lower waste management costs, Frankston City Council plans to inspire and enable the Frankston City community to reduce waste generation through avoidance and reuse.

Council is best placed to assist the community through education, advocacy to higher levels of government and support of programs and tools which can reduce waste generation. Council will build upon existing programs, in addition to utilising and harnessing creativity and innovation to address the complex barriers to waste avoidance. Key aims for this focus area are outlined below.

Key Aims: what we will do

1 Improve the reuse of materials and items

Reuse of materials and items is one way to prevent waste entering the waste management system. Council plans to encourage reuse through supporting community reuse initiatives, opening a Resale Shop at

the new Frankston Regional Recycling and Recovery Centre, investigating reuse alternatives for hard waste collection material and maintaining and promoting the Frankston City Recycling and Safe Disposal Directory.

2 Reduce disposal of food waste and assist the community to avoid food waste

As food waste is a significant component of waste sent to landfill, avoiding food waste has a number of environmental and financial benefits. Council will continue to support existing households on the Halve Garbage Waste and Halve Our Waste programs, investigate how to further encourage and support at home composting and deliver educational programs on preventing avoidable food waste.

3 Reduce the impacts of packaging

Packaging presents a number of waste issues; excessive packaging is a barrier to waste avoidance, unrecyclable packaging is a barrier to resource recovery and non-biodegradable materials are an environmental hazard if they become litter. Council will address these impacts of packaging through advocacy for stronger commitments to address packaging waste, and research into the viability of a plastic bag ban within Frankston City, as well as working with suppliers to improve the sustainability of their packaging.

4 Support local businesses and community groups to reduce waste generation

While waste generated by local businesses and industries is not within direct control of Council, Council will support local businesses to increase avoidance and reuse of waste, where Council's resources permit.

Focus Area 3: Demonstrate leadership in resource recovery to conserve resources and divert waste from landfill

In addition to taking action to avoid waste, Frankston City Council will take leadership in recovering more resources. This will conserve valuable resources by keeping materials within the economy and lowering the amount of waste disposed to landfill.

In 2013-14, Council recovered around half of its residential waste, mostly through kerbside recycling and garden organics collections. While the processing facilities required to significantly increase Council's recovery rate are not yet available, Council has adopted a number of key aims to improve resource recovery in the Frankston City area, as outlined below.

Key Aims: what we plan to do

1 Increase recovery of residential kerbside waste

Council will continue advocacy for processing facilities in the south-east metro area and take part in MWRRG initiatives around resource recovery. Council will also improve its waste data collection to ensure that investment decisions are evidence-based.

2 Continue to improve recycling education and communication

Council aims to improve use of kerbside recycling bins by continuing its current work in education and communication while improving the evidence base for informing investment decisions in programs and projects. Council will also incorporate more State Government educational material in communications, where relevant to the local community, and advocate for more investment from the State Government in this area.

3 Continue to provide and improve disposal alternatives for problem wastes and recycling services for specialty items

Council will continue to improve access to disposal alternatives for hazardous materials and recycling alternatives for items which cannot be recycled through kerbside collections. This will include continuing to offer a Detox Your Home service in partnership with Sustainability Victoria and evaluating the Specialty Recycling Hubs trial, with the view to expanding this service and increasing local drop-off points where feasible.

4 Improve recycling in public places

Council will continue to improve recycling in public places, through installing new public place recycling bins, developing and implementing a universal bin and signage design guideline and continuing to implement actions to avoid waste and increase resource recovery at selected major Council events.

5 Support local businesses and community groups to enhance resource recovery

Council will support local businesses to increase resource recovery, where Council's resources permit, and encourage local resource recovery industries. Council will also take part in regional initiatives involving enhanced data collection on business waste, improved services and increased sustainability of resource recovery.

13 TARGETS AND MEASURES

To inform the development of the key performance indicators and targets for the *Waste Minimisation and Management Plan*, a sensitivity analysis was undertaken to assess the impact of changes to Frankston City's household garbage waste to landfill on both landfill disposal costs and tonnages (Table 8).

Table 8 shows that if Frankston City's household garbage waste was to increase by 12%, resulting in an average of 9.45 kilograms (kg) per household per week (equivalent to the Victorian metropolitan average), then landfill disposal costs would increase by an estimated \$365,927 in 2015-16. However, if Frankston City's household garbage waste was to decrease by 4% (equivalent to reaching the 8.10 kg per household per week

target in the *Plan*) in the first year, then Council would save an estimated \$121,976 in 2015-16. Alternatively, to save approximately \$1M in landfill disposal costs in 2015-16, Frankston City's household garbage waste would need to reduce to an average of 5.48 kg per household per week (equivalent of a 35% reduction), which is an unrealistic goal without major advancements in technology, infrastructure, services and changes to waste behaviour. Based on this analysis, the target of 8.10 kg (or less) per household per week has been chosen as the preferred waste reduction target in the *Plan* (Table 9).

Table 8 Impact of changing Frankston City's household garbage waste to landfill rate on tonnages and landfill cost savings

Percentage of kerbside garbage waste diverted from landfill (using 2013-14 disposal figures as a base)	Total tonnes (waste to landfill)	Landfill disposal cost savings (2015-16)		Household garbage waste to landfill (kg / household / week)
-12%	27,461	-\$	365,927	9.45 (Victorian metropolitan average)
-10%	26,971	-\$	304,939	9.28
-5%	25,745	-\$	152,470	8.86
0%	24,519	0		8.43 (Frankston City baseline)
4%	23,538	\$	121,976	8.10 (Target)
5%	23,293	\$	152,470	8.01
10%	22,067	\$	304,939	7.59
20%	19,615	\$	609,879	6.75
30%	17,163	\$	914,818	5.90
35%	15,937	\$	1,067,288	5.48

Table 9 below outlines Frankston City Council's adopted key performance indicators and targets for the five years of the Waste Minimisation and Management Plan.

Table 9 Key performance indicators and targets for the Waste Minimisation and Management Plan

Targets and measures									
No.	Key Performance Indicator	Baseline 2013-14	Target 2015-16	Target 2016-17	Target 2017-18	Target 2018-19	Target 2019-20	Measurement	
1	Kerbside garbage sent to landfill	8.43 kg / tenement / week	≤8.5kg / tenement / week	≤8.4kg / tenement / week	≤8.3 kg / tenement / week	≤8.2 kg / tenement / week	≤8.1 kg / tenement / week	Tonnage of kerbside garbage waste stream only. Note: Tenements refers to households and businesses which have a kerbside garbage service through Council.	
2	Contamination rate of kerbside recycling bin stream	Single dwelling – 11.4% by weight Multi-unit dwelling – baseline to be determined	≤12% Establish baseline and targets	≤11% To be determined	≤10% To be determined	≤10% To be determined	≤10% To be determined	Subject to results of an annual kerbside waste composition audit (to be modified to include additional data needs) (2015-16).	
3	Kerbside organic waste sent to landfill from the garbage stream	55% by weight (2014-15 data)	≤55%	≤55%	≤55%	≤55%	≤55%	Council's annual kerbside waste composition audit.	
4	Recovery rate of incoming material at Council's new Frankston Regional Recycling and Recovery Centre	Not applicable (based on Centre opening in 2015-16)	≥40% of incoming material is recovered	≥50% of incoming material is recovered	≥55% of incoming material is recovered	≥60% of incoming material is recovered	≥65% of incoming material is recovered	Includes materials recycled and/or reused. Key performance indicator for contractor – reporting to Council.	
5	Community satisfaction level with Council's kerbside waste services	95%	≥95%	≥95%	≥95%	≥95%	≥95%	Council's annual community kerbside collection survey.	

Targets and measures									
No.	Key Performance Indicator	Baseline 2013-14	Target 2015-16	Target 2016-17	Target 2017-18	Target 2018-19	Target 2019-20	Measurement	
6	Community awareness of the following services: <ul style="list-style-type: none"> Disposal alternatives for hazardous materials Reuse and recycling alternatives for specialty materials and hard waste Disposal pathways for hard waste 	Not applicable – baseline to be determined	Establish baseline to improve community awareness	≥2% above baseline	≥4% above baseline	≥6% above baseline	≥8% above baseline	Subject to results of Council's annual community kerbside collection survey (to be modified to include additional questions) (2015-16).	
7	Provide community outreach to the Frankston City community about different waste services	32% of households	≥30% of households	≥30% of households	≥30% of households	≥30% of households	≥30% of households	Includes households which have been audited by Bin Cop, Halve Our Waste participants, Detox Your Home, as well as workshop attendees.	
8	Incidence of illegal dumping	Not applicable – baseline to be determined	Establish an improved reporting system for better data on the incidence of illegal dumping	≤1% below baseline	≤1% below baseline	≤1% below baseline	≤1% below baseline	Subject to further analysis of Council's illegal dumping data and preparation of Council's Litter Prevention Action Plan (data due 2015-16).	
9	Waste sent to landfill from Council staffed properties	42.3 tonnes per annum (2014-15 data)		≤10% below baseline (≤38.07 tonnes per annum)		≤20% below baseline (≤33.84 tonnes per annum)		Waste audit of selected Council facilities, conducted every two years.	

14 ACTION PLAN

Following is the *Waste Minimisation and Management Plan* action plan for each focus area which outlines priorities, resourcing considerations and responsibilities against each action. While each focus area will remain static for the lifetime of the action plan, the actions and corresponding tasks will be reviewed on an annual basis to ensure they remain relevant, incorporate new opportunities and reflect changing priorities.

Each action has received a rating from 1 to 3 based on its impact against environmental, social, economic and governance factors. Scoring is explained in the tables below.

Priorities are based on the sum of these scores, rated as follows:

Total Score	Priority and colour code
10 – 12	High
7 – 9	Med
4 – 6	Low

Table 10 Explanation of impact ratings against environmental, economic, social and governance factors

Factors	Impact Rating 1	Impact Rating 2	Impact Rating 3
Environmental	<p><i>Limited positive environmental outcomes</i></p> <p>Improves avoidance, reuse and/ or recovery of waste across a narrow section of the Frankston City community.</p> <p>Has limited effect on reducing the pollution impacts of waste.</p>	<p><i>Intermediate positive environmental outcomes</i></p> <p>Improves avoidance, reuse and/ or recovery of waste across some sections of the Frankston City community.</p> <p>Has some effect on reducing the pollution impacts of waste.</p>	<p><i>High positive environmental outcomes</i></p> <p>Improves avoidance, reuse and/ or recovery of waste across the Frankston City community.</p> <p>Reduces pollution impacts of waste.</p>
Economic	<p><i>High negative economic impact</i></p> <p>Unfunded action.</p> <p>Significant outlay with limited quantifiable returns.</p>	<p><i>Intermediate negative economic impact</i></p> <p>Unfunded action.</p> <p>Significant outlay with good return on investment or small outlay with limited quantifiable returns.</p>	<p><i>Limited negative or positive economic impact</i></p> <p>Funded action.</p> <p>Unfunded action, however with small outlay and good return on investment.</p>

Factors	Impact Rating 1	Impact Rating 2	Impact Rating 3
Social	<p><i>Limited positive social outcomes</i></p> <p>Affects only a narrow section of the Frankston City community.</p> <p>Provides limited opportunities for increases in knowledge and positive behaviour change.</p> <p>Has limited impact on the health and wellbeing of the community.</p>	<p><i>Intermediate positive social outcomes</i></p> <p>Affects a number of sections of the Frankston City community.</p> <p>Provides some opportunities for increases in knowledge and positive behaviour change.</p> <p>Has some positive impact on the health and wellbeing of the community.</p>	<p><i>High positive social outcomes</i></p> <p>Affects most sections of the Frankston City community.</p> <p>Provides opportunities for increases in knowledge and positive behaviour change.</p> <p>Increases and/or preserves the health and wellbeing of the community.</p>
Governance	<p><i>Limited positive governance outcomes</i></p> <p>Action is outside the objectives, actions and targets contained in relevant state and local plans and policies, but does not work against the intention of the plans / policies.</p> <p>Does not improve the efficiency, effectiveness and equity of Council services.</p> <p>Meets legislative requirements and best practice standards.</p> <p>Progress against action can be monitored in a transparent and accountable manner.</p>	<p><i>Intermediate positive governance outcomes</i></p> <p>Meets the general objectives of relevant state and local legislation, plans and policies.</p> <p>Has some positive impact on the efficiency, effectiveness and equity of Council services.</p> <p>Meets legislative requirements and best practice standards.</p> <p>Progress against action can be monitored in a transparent and accountable manner.</p>	<p><i>High positive governance outcomes</i></p> <p>Meets specific objectives, actions and targets contained in relevant state and local plans and policies.</p> <p>Has a positive impact on the efficiency, effectiveness and equity of Council services.</p> <p>Meets legislative requirements and best practice standards.</p> <p>Progress against action can be monitored in a transparent and accountable manner.</p>

Monitoring and Evaluation

In order for the *Waste Minimisation and Management Plan* to have maximum impact, it is important that achievement against the actions and targets is monitored, evaluated and reviewed regularly.

The actions and related tasks will be reviewed on an annual basis to ensure that they remain relevant, incorporate new opportunities and reflect changing priorities.

Progress against each action will be reported to Council in October of each year by the Sustainable Assets Department, in consultation with key staff and other stakeholders, as necessary.

The key performance indicators and targets outlined in *Chapter 13: Targets and Measures* will also be used to monitor the progress of the *Waste Minimisation and Management Plan*.

Action Plan – Focus Area 1: Provide the Frankston City community with best practice and cost-effective infrastructure and services

Aim 1.1 Ensure that future local waste and resource recovery infrastructure is developed to meet best practice standards, requirements and community needs									
Action 1.1.1	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Ensure that future local infrastructure meets State, regional and local requirements, needs and standards	<p>Benchmark against other local facilities</p> <p>Continue annual community kerbside collection survey and modify to include additional questions for reporting on the WMMP targets</p> <p>Continue participation with MWRRG</p> <p>Investigate funding opportunities (state and/or federal government) to support infrastructure development</p> <p>Comply with requirements for managing closed landfills</p>	<p>Environmental 3</p> <p>Economic 3</p> <p>Social 3</p> <p>Governance 3</p>	<p>12</p> <p>Year: 1-5</p>	Existing and New	<p>Existing budget</p> <p>Additional funding: \$2,500 per annum for modifications to the annual community kerbside collection survey</p> <p>No payback period</p>	CAPEX / OPEX	Ongoing	Operations	
Action 1.1.2	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Engage officer to work with local industries, businesses and/or social organisations to increase resource recovery and provide local economic opportunities (also see Actions 2.4.1 & 3.5.1)	<p>Investigate options for funding the position</p> <p>Develop business case and submit for external funding</p>	<p>Environmental 3</p> <p>Economic 2</p> <p>Social 2</p> <p>Governance 3</p>	<p>10</p> <p>Year: 2-3</p>	New	<p>Additional funding required – subject to external funding (e.g. grant opportunity):</p> <p>Part time officer, 0.2 FTE for 2 years, \$18,600 per year</p> <p>Payback (estimated): 4-9 yrs</p>	OPEX	One-off (contracted term)	Community Relations; Operations; Sustainable Assets	

Aim 1.1 Ensure that future local waste and resource recovery infrastructure is developed to meet best practice standards, requirements and community needs								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.1.3	Continue to advocate for the State Government to support development and operation of the new Frankston Regional Recycling and Recovery Centre	Environmental 3 Economic 3 Social 3 Governance 3	12 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Community Relations
Aim 1.2 Ensure residential kerbside infrastructure meets community needs and encourages waste recovery								
Action 1.2.1	Assess the sufficiency of the recycling bin volume and the provision of free recycling bins to selected households that apply (also see Action 3.1.7)	Environmental 2 Economic 1 Social 1 Governance 2	6 Year: 1-5	New	Additional funding: Changes to Council's existing kerbside bin audit may cost an additional \$5,000-\$10,000 per year No payback period	OPEX	Ongoing	Operations
Aim 1.3 Ensure future waste contracts maximise environmental outcomes and cost-effectiveness for the community								
Action 1.3.1	Develop the new kerbside collections contract/s tender to maximise the value Council receives from the recyclables stream	Environmental 1 Economic 3 Social 1 Governance 3	8 Year: 2-3	Existing	Existing budget	OPEX	One-off	Operations

Aim 1.3 Ensure future waste contracts maximise environmental outcomes and cost-effectiveness for the community								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.3.2	Continue to be involved in MWRRG initiatives around resource recovery, especially concerning the processing of kerbside garbage	Environmental 3 Economic 3 Social 2 Governance 3	11 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Councillors; Sustainable Assets
Aim 1.4 Ensure the hard waste collection is cost-effective and meets community needs								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.4.1	Review Council's kerbside hard waste collection services in line with the opening of the Frankston Regional Recycling and Recovery Centre, to ensure cost-effectiveness while meeting community needs	Environmental 1 Economic 3 Social 2 Governance 2	8 Year: 1	New	Existing budget	OPEX	One-off	Operations; Sustainable Assets; Community Relations
Action 1.4.2	Promote the kerbside at-call hard waste collection service more widely	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Sustainable Assets; Community Relations

Aim 1.5 Manage closed landfills in accordance with existing plans and State Government requirements								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.5.1 Continue to implement the recommendations of the McClelland Drive Landfill Management Strategy and State Government requirements in managing closed landfills	Implement remediation and monitoring actions from Strategy and any infrastructure needs	Environmental 3 Economic 3 Social 2 Governance 3	11 Year: 1-5	Existing	Existing budget	CAPEX / OPEX	Ongoing	Operations
Aim 1.6 Improve infrastructure and services to discourage litter and illegal dumping to improve local amenity, reduce pollution and improve cost effectiveness								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.6.1 Utilise the research outcomes from the State Government grant project with the City of Greater Dandenong to further address illegal dumping from Multi-Unit Developments	Need research outcomes before know what steps are involved Actions may include targeted education and enforcement	Environmental 1 Economic 2 Social 1 Governance 2	6 Year: 2	New	Additional funding: Costing is contingent upon actions undertaken, est. \$25,000 Payback (estimated): 3.3 yrs	OPEX	One-off	Sustainable Assets; Community Safety; Operations
Action 1.6.2 Continue to use best practice guidelines (e.g. Sustainability Victoria's Guide to Best Practice for Waste Management in Multi-Unit Developments) to assess development applications	Review planning applications for new developments Require planning conditions to address best practice guidelines and Council's guidelines Keep abreast of industry developments through MWRRG	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Planning and Environment

Aim 1.6

Improve infrastructure and services to discourage litter and illegal dumping to improve local amenity, reduce pollution and improve cost effectiveness

Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.6.3 Establish a process for recording and monitoring data on illegal dumping and litter, including incident data, infringement notices, materials collected and costs incurred	Develop project brief Develop systems and processes to collect data Establish baseline and future targets Report annually	Environmental 3 Economic 2 Social 2 Governance 3	9 Year: 1	New	Additional funding: \$5,000-\$10,000 to inform development of Council's Litter Prevention Action Plan (also see 1.6.4 below) Payback: Once data captured, may be able to realise savings / financial payback if efficiencies can be implemented in litter plan	OPEX	One-off	Community Safety; Operations; Sustainable Assets
Action 1.6.4 Develop a concise litter prevention action plan which outlines data collection, targets hotspots and involves various stakeholders	Gather stakeholders together Litter audits if possible Write action plan based on information gathered	Environmental 3 Economic 1 Social 2 Governance 3	9 Year: 2	New	Additional funding: \$50,000-\$60,000 to develop Council's Litter Prevention Action Plan Payback: There will not be quantifiable payback on this action until it is developed and implemented	OPEX	One-off	Sustainable Assets; Operations; Community Safety
Action 1.6.5 Enhance enforcement of Council's hard waste collection guidelines	Provide education information to raise community awareness of guidelines Respond to customer complaints issuing infringement notices (as required)	Environmental 2 Economic 1 Social 1 Governance 2	6 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Community Safety; Operations

Aim 1.6 Improve infrastructure and services to discourage litter and illegal dumping to improve local amenity, reduce pollution and improve cost effectiveness								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.6.6	Investigate options to strengthen Council's Local Law to manage illegally dumped rubbish	Environmental 2 Economic 3 Social 1 Governance 2	8 Year: 1-5	New	Existing budget	OPEX	Ongoing	Community Safety; Operations
Action 1.6.7	Review Council's penalty points for littering and illegal dumping to ensure that the infringement penalty is sufficient for full cost recovery	Environmental 2 Economic 3 Social 1 Governance 2	8 Year: 1-5	New	Existing budget	OPEX	Ongoing	Community Safety; Operations; Sustainable Assets
Aim 1.7 Ensure that Council's activities provide a best practice example to the community								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 1.7.1	Ensure there are systems and processes in place so Council demonstrates leadership in waste minimisation and resource recovery	Environmental 2 Economic 1 Social 1 Governance 3	7 Year: 2-4	Existing and New	Additional funding: \$5,000 for implementing audit recommendations (e.g. recycling bins and collection in selected facilities) Payback (estimated): 2.6 yrs	OPEX	One-off	Sustainable Assets; Facilities; Operations

Aim 1.7

Ensure that Council's activities provide a best practice example to the community

Action 1.7.2	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Encourage better use of Council's Procurement Guidelines and develop educational resources and training for staff on resource recovery options	Develop resources and implement training program	Environmental 2 Economic 2 Social 2 Governance 3	9 Year: 2-4	New	Existing budget	OPEX	Ongoing	Sustainable Assets; Operations; Commercial Services
Action 1.7.3	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Continue to recover resources at Council's Operations Centre and other facilities	Investigate and promote further opportunities for recovering Council's operational waste, as well as illegally dumped materials	Environmental 2 Economic 2 Social 2 Governance 3	9 Year: 1-5	Existing	Existing budget Future costs dependent on scope of expansion	OPEX	Ongoing	Operations; Sustainable Assets

Action Plan – Focus Area 2: Inspire and enable the Frankston City community to reduce waste through avoidance and reuse

Aim 2.1 Improve the reuse of materials and items									
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Action 2.1.1 Continue to improve promotion of reuse and recycling alternatives	Better publicise the on-line <i>Frankston City Recycling and Safe Disposal Directory</i> and keep it up to date Continue to support and publicise community based reuse initiatives, as they arise	Environmental 2 Economic 3 Social 1 Governance 2	8 Year: 1-5	Existing New	Existing budget Community based reuse initiatives - subject to external funding (e.g. grant opportunity) Payback (estimated): 10 yrs	OPEX	Ongoing	Sustainable Assets; Operations	
Action 2.1.2 Establish a Resale Shop at the new Frankston Regional Recycling and Recovery Centre	Engage contractor/s Open Shop	Environmental 3 Economic 3 Social 2 Governance 3	11 Year: 1-5	New	Existing budget	OPEX	Ongoing	Operations	
Action 2.1.3 Investigate ways in which additional items placed out for the hard waste collection could be reused/recycled instead of disposed	Investigate sustainable end markets for common items, such as timber, tables and chairs	Environmental 3 Economic 2 Social 2 Governance 3	10 Year: 3	New	Additional funding: \$10,000-\$30,000 to conduct a study (dependent upon scope of project) Payback (estimated): 1-2 years	OPEX	One-off	Operations; Commercial Services	

Aim 2.2 Reduce the disposal of food waste and support the community to avoid food waste						
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX
Action 2.2.1 Investigate implementing Sustainability Victoria's Love Food Hate Waste (LFHW) education resources through local programs and communications	Review program with existing councils Develop a business case for program Seek funding or grant support from the State Government to deliver, as required	Environmental 3 Economic 3 Social 2 Governance 3	11 Year: 2-5	New	Dependent on scope of project	OPEX
						Expense type One-off or Ongoing
						Responsibility - lead department appears first Sustainable Assets; Community Relations
Aim 2.2 Reduce the disposal of food waste and support the community to avoid food waste						
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX
Action 2.2.2 Continue to support Frankston City households participating in the Halve Our Waste and Halve Garbage Waste programs	Support customer enquiries. Continue to provide food waste avoidance and waste reduction tips and advice through the HOW e-newsletter, social media and workshops	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX
						Expense type Ongoing
						Responsibility - lead department appears first Sustainable Assets; Operations
Aim 2.3 Reduce the impacts of packaging and plastic bags						
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX
Action 2.3.1 Undertake advocacy to the State Government for stronger commitments to addressing packaging waste and research the feasibility of a plastic bag ban	Develop and implement an advocacy campaign Prepare an Issues and Options paper on the feasibility of a plastic bag ban in Frankston City	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 2	New	Additional funding: \$3,600 for plastic bag research and Council Report No payback period	OPEX
						Expense type Ongoing - state advocacy One-off - plastic bag research
						Responsibility - lead department appears first Councillors; EMT; Sustainable Assets; Community Relations

Aim 2.3 Reduce the impacts of packaging and plastic bags								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 2.3.2 Investigate inclusion of 'sustainable packaging' clauses for suppliers engaged by Council	Review best practice examples through other councils Implement changes in contracts procurement	Environmental 3 Economic 3 Social 1 Governance 2	9 Year: 3	New	Existing budget	OPEX	One-off	Commercial Services; Sustainable Assets
Aim 2.4 Support local businesses and community groups to reduce waste generation								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 2.4.1 Offer support to businesses and community groups in Frankston City to reduce waste generation in their operations, where feasible (also see Actions 1.1.2 & 3.5.1)	Review best practice examples through other councils Prepare business case Provide support (where feasible)	Environmental 3 Economic 2 Social 2 Governance 3	10 Year: 2-3	New	Additional funding required - subject to external funding (e.g. grant opportunity): Part time officer, 0.2 FTE for 2 years, \$18,600 per year (cost and payback already accounted for in Action 1.1.2)	OPEX	One-off (contracted term)	Community Relations; Operations; Sustainable Assets; Other departments (as required)

Action Plan – Focus Area 3: Demonstrate leadership in resource recovery to conserve resources and divert waste from landfill

Aim 3.1 Increase resource recovery from the residential kerbside waste stream									
	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Action 3.1.1	Develop a business case for a Food Organics and Garden Organics (FOGO) collection, including potential charges to the kerbside collection service, once a suitable organics processing facility becomes available in the region	Environmental 2 Economic 2 Social 1 Governance 3	8 Year: 2	New	Additional funding: \$15,000-\$25,000 to conduct a business case (dependent upon scope of study) No payback period	OPEX	One-off	Operations	
Action 3.1.2	Continue supporting the approval and establishment of south east metro FOGO processing facilities	Environmental 2 Economic 2 Social 1 Governance 3	8 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations	
Action 3.1.3	Examine the feasibility of increasing Council's use of recycled organics products from the kerbside green waste collection service (e.g. mulch)	Environmental 3 Economic 3 Social 1 Governance 3	10 Year: 1-5	New	Existing budget	OPEX	Ongoing	Operations; Public Space and Leisure; Facilities; Infrastructure	

Aim 3.1 Increase resource recovery from the residential kerbside waste stream									
Action 3.1.4	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Advocate to the State Government for enhanced and long-term investment in research and best practice treatment and sorting technologies to support resource efficiency and resource recovery	Continue to identify local issues and opportunities through kerbside audits and community feedback Develop and implement an advocacy campaign	Environmental 3 Economic 3 Social 1 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Sustainable Assets; Community Relations	
Action 3.1.5	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Continue to be involved in MWRRG initiatives around resource recovery, especially concerning the processing of kerbside garbage	Maintain Councillor and Officer representation on Metropolitan Local Government Waste Forum and Waste Education Network Maintain representation at regional and project based forums and networks	Environmental 3 Economic 3 Social 1 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Sustainable Assets	
Action 3.1.6	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Monitor industry developments that may lead to the availability of new resource recovery opportunities for the region (e.g. developments in energy-from-waste)		Environmental 3 Economic 3 Social 1 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations	

Aim 3.1 Increase resource recovery from the residential kerbside waste stream									
Action 3.1.7	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Conduct future kerbside audits in accordance with SV Best Practice Auditing Guidelines, in particular, obtaining data on the split between the different organics streams, 2-bin versus 3-bin households, recycled bin capacity and difference between MUDs and single dwelling households (also see Action 1.2.1)	Develop scope of works and engage contractor Use data to inform changes to Council's kerbside waste services and education needs Note: Also addresses additional reporting needs outlined in Section 13: <i>Targets and Measures in the Waste Minimisation and Management Plan</i>	Environmental 3 Economic 2 Social 1 Governance 3	9 Year: 1-5	New	Additional funding: Changes to Council's existing kerbside bin audit may cost an additional \$5,000-\$10,000 per year (cost already accounted for in Action 1.2.1) No payback period	OPEX	Ongoing	Operations; Sustainable Assets	
Action 3.1.8	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Assess the potential for recovery of hard waste through processing at the new Frankston Regional Recycling and Recovery Centre, including working with private industry and social enterprises		Environmental 2 Economic 2 Social 3 Governance 3	10 Year: 3	New	Existing budget	OPEX	One-off	Operations; Community Strengthening; Sustainable Assets	
Aim 3.2 Continue to improve recycling education and communication									
Action 3.2.1	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Improve monitoring and evaluation to ensure existing programs and projects (e.g. Bin Cop, School programs) are efficient and effective	Undertake evaluation of the kerbside Bin Cop audit program Finalise evaluation of the HOW program to determine feasibility of expanding	Environmental 2 Economic 2 Social 3 Governance 3	10 Year: 1	New	Existing budget	OPEX	Ongoing	Operations; Sustainable Assets	

Aim 3.2

Continue to improve recycling education and communication

Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 3.2.2 Use evidence based decision-making to direct future investment in waste and recycling education programs and projects	Review best practice approaches Evaluate local needs Prepare business cases, as required	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Sustainable Assets
Action 3.2.3 Continue to use a wide range of channels (such as Frankston City News, Council's website, social media, waste facility tours etc.) to deliver waste minimisation and recycling messages and targeted education	Develop and implement a Communications Plan Use results of Council's annual kerbside waste audits to inform key messages and target audience	Environmental 2 Economic 2 Social 3 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Sustainable Assets; Operations
Action 3.2.4 Implement State and regional education resources in local communications (such as Get It Right On Bin Night and Back to Earth), where relevant	Incorporate into Communications Plan (as above), to encourage residents to recycle correctly and to reduce contamination	Environmental 2 Economic 2 Social 2 Governance 3	9 Year: 2 & 4	Existing	Additional funding: Implementation of a Communications Plan to reduce recycling contamination \$10,000-\$15,000 for 2 years Payback (estimated): 2 years	OPEX	One-off (over 2 years)	Sustainable Assets
Action 3.2.5 Continue to be involved in MWRRG education initiatives and local government networks and forums	Maintain Councillor and Officer representation	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Sustainable Assets

Aim 3-2
Continue to improve recycling education and communication

Action 3.2.6	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Implement relevant components of the State waste education strategy, when released	Incorporate into Communications Plan (per 3.2.3 and 3.2.4)	Environmental 2 Economic 2 Social 2 Governance 3	9 Year: 1-5	New	Existing budget (dependent on scope of strategy)	OPEX	One-off	Sustainable Assets
Action 3.2.7	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Advocate for continued State Government spending on the Get It Right On Bin Night program, including mass media advertising	Develop and implement an advocacy campaign	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Sustainable Assets; Community Relations
Action 3.2.8	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Continue to support Planet Ark's Recycling Near You website (and keep it up-to-date)	Promote website through Council's communication channels Update regularly incorporate into Communications Plan	Environmental 2 Economic 3 Social 2 Governance 2	9 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Sustainable Assets; Community Relations
Action 3.2.9	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Continue to support local schools with information and advice on waste minimisation and recycling	Continue to provide funding support for waste education programs, where feasible Review levels of service (e.g. offering of free recycling bins and collection)	Environmental 3 Economic 2 Social 3 Governance 3	11 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Sustainable Assets; Operations

Aim 3-3

Continue to provide and improve disposal alternatives for problem wastes and recycling services for specialty items

Action 3-3.1	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Improve communication around drop-off locations for specialty recycling; maintain the <i>Frankston City Recycling and Safe Disposal Directory</i> and publicise its existence more widely	Develop and implement a Communications Plan Update Directory regularly	Environmental 2 Economic 3 Social 2 Governance 2	9 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Sustainable Assets
Action 3-3.2	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Maintain Council's existing Specialty Recycling Hubs and install, where feasible, additional drop-off points for specialty recycling, such as at the FRRRC	Evaluate existing Specialty Recycling Hubs Research best practice Develop business case for additional site/s	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 4-5	Existing and New	Additional funding: Implement a specialty recycling facility at the FRRRC \$15,000-\$20,000 (dependent on scope) Payback (estimated): 2 yrs	OPEX / CAPEX	Ongoing and on-off	Operations; Sustainable Assets
Action 3-3.3	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Investigate the possibility of recycling soft plastics through the kerbside collection	Continue to monitor industry developments Research best practice	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 1-5	New	Existing budget	OPEX	One-off	Operations
Action 3-3.4	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Advocate to the State Government for continued communication, education and funding for safe disposal and recycling of hazardous wastes	Develop and implement an advocacy campaign	Environmental 3 Economic 3 Social 2 Governance 2	10 Year: 1-5	New	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Sustainable Assets; Community Relations

Aim 3.3 Continue to provide and improve disposal alternatives for problem wastes and recycling services for specialty items									
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Action 3.3.5	Continue to support the State Government in offering and promoting a local Detox Your Home Household Chemical Collection service	Environmental 3 Economic 3 Social 2 Governance 3	11 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations; Sustainable Assets; Community Relations	
Action 3.3.6	Investigate and advocate for a permanent Detox your Home facility, potentially working with other partners and/or utilising the new FRRRC (also see Action 3.3.5 above)	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 2	New	Existing budget Additional funding may be required, dependant on State Government	CAPEX if went ahead	One-off	Operations; Councillors	
Aim 3.4 Improve recycling in public places									
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first	
Action 3.4.1	Continue to install public place recycling bins to areas identified for upgrade, referring to Council's Open Space Strategy and Sustainability Victoria's Public Place Recycling Toolkit	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 1-5	Existing	Capital costs for bin enclosure: \$1,500 - \$3,000 per enclosure + ongoing collection costs	CAPEX / OPEX	Ongoing	Operations; Public Space and Leisure	
Action 3.4.2	Develop and implement a universal waste and recycling bin design and signage across Frankston City, utilising SV's Away From Home Waste Signage Guidelines	Environmental 2 Economic 2 Social 2 Governance 2	8 Year: 1-5	New	Existing budget for design, minimal costing for decals/stickers	CAPEX	One-off	Public Space and Leisure; Operations; Sustainable Assets	

Aim 3-4 Improve recycling in public places								
Action 3-4.3	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Continue to operate selected major Council events as waste wise events	Develop and implement waste wise guidelines for contractors	Environmental 2 Economic 3 Social 2 Governance 2	9 Year: 1-5	Funded	Existing budget	OPEX	Ongoing	Community Relations; Sustainable Assets
Aim 3-5 Support local businesses and community groups to enhance resource recovery								
Action 3-5.1	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Offer support to businesses and community groups in Frankston City to increase resource recovery in their operations, where resources allow (also see Actions 1.1.2 & 2.4.1)		Environmental 3 Economic 2 Social 2 Governance 3	10 Year: 2-3	New	Additional funding required – subject to external funding (e.g. grant opportunity): Part time officer, 0.2 FTE for 2 years, \$18,600 per year (cost and payback already accounted for in Action 1.1.2)	OPEX	One-off (contracted term)	Community Relations; Operations; Sustainable Assets; Other departments (as required)
Action 3-5.2	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Investigate opportunities for recovery of commercial and industrial (C&I) and construction and demolition (C&D) waste at FRRRC		Environmental 2 Economic 2 Social 1 Governance 2	7 Year: 1-5	New	Existing budget	OPEX / CAPEX	One-off	Operations

Aim 3-5 Support local businesses and community groups to enhance resource recovery								
Action	Tasks	Impact Ratings	Priority / Timeline	Action	Funding	CAPEX / OPEX	Expense type	Responsibility - lead department appears first
Action 3-5.3	Support future MWRRG initiatives around improving resource recovery of C&I and C&D wastes and improving the market	Environmental 2 Economic 2 Social 1 Governance 2	7 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Operations
Aim 3-6 Other recommendations								
Action 3-6.1	Continue to actively seek grant funding through the State Government and MWRRG to support projects and programs, and increased access to the proceeds of the landfill levy	Environmental 2 Economic 3 Social 2 Governance 3	10 Year: 1-5	Existing	Existing budget	OPEX	Ongoing	Councillors; EMT; Operations; Sustainable Assets



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