



WARRNAMBOOL
CITY COUNCIL



Warrnambool City Council

Resource Recovery, Waste Minimisation and Management Strategy

2017-2021



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Document: Resource Recovery, Waste Minimisation and Management Strategy 2021

Responsible Branch: City Amenity

Responsible Directorate: City Infrastructure

Responsible Officer: Director of City Infrastructure

Author: Strategic Waste Minimisation Unit

Date: May 2017

Review May 1st 2021

Distribution Schedule

Version No.	Date	Distribution
1.1	May 2017	First Draft for Internal Review
2.1	4 Sep 2017	Council meeting report
3.1	4 Dec 2017	Final draft for Council consideration following community consultation

Schedule of Adoption

Version No.	Date	Comment
2.1	4 Sep 2017	Released for community consultation
3.1	4 Dec 2017	Adopted by Council

Acknowledgments:

Council acknowledges the input into the development of this strategy by council staff, community groups, businesses and organisations involved in resource recovery and waste management.

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Introduction

Resource recovery and waste management is multi-faceted and affects the whole community.

The purpose of this document is to consolidate all the related issues and topics to provide the complete picture of waste management in our city.

While this strategy provides a vision for the future, it is also an operational document outlining practical steps to assist Council and the community in achieving its waste management goals.

The waste hierarchy of avoid and minimise, reuse, recycle, recover, treat and dispose underpins this strategy and guides decision-making.

This strategy is cognisant of and works with policies of the Federal and Victorian governments. It documents the integral role that private enterprise plays in partnership with the public sector in the delivery of the strategy and its objectives.

“Sustain and enhance the natural environment” is one of five pillars in the 2017-2021 Council Plan. Council will demonstrate its commitment to sustainability by providing strong, intelligent and informed leadership, support and education. This strategy provides the foundation for this commitment.

Not-for-profit groups, volunteer community organisations, schools, residents and visitors are all critical to the strategy's success through their formal and informal roles in resource recovery and waste minimisation. The community has made it clear via feedback on the draft strategy that protecting our rivers, creeks and the ocean from pollution and diverting waste from landfill through the introduction of an organics collection are the highest priorities, while the cost of waste management and becoming a plastic bag-free city are likewise important.

These community priorities align with objectives in the Council Plan and will further assist decision-making. Following consultation with the community and key stakeholders the following key objectives have been developed:

- To protect our waterways from pollution and litter.
- To provide residents with an optimal kerbside collection in relation to service, convenience, affordability and environmental benefits.
- To engage the community in positive behaviour change actions and educate and inform residents about the sector.

Local and global changes constantly impact on waste management, therefore this will be a dynamic document. Actions will be prioritised and reviewed annually against key objectives and performance measures as part of Council's budget process. A formal review will occur every four years or at least once in the life of the elected council.

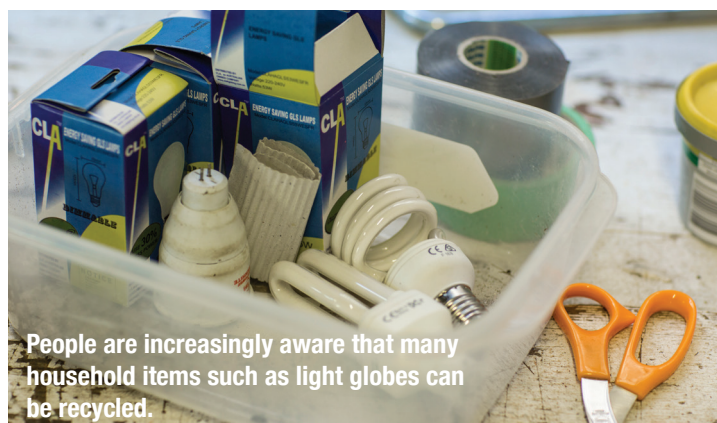


Wash Against Waste team at Warrnambool's Sustainable Living Festival.

1. Council's commitment

Next practice kerbside collection

- 1.** Change the 80-litre mobile garbage bins to a 120-litre mobile garbage bin to address overfilling and the resulting litter issue.
- 2.** Consider options for households to upsize to a 360-litre recycling bin or receive a second recycling bin dependent upon keeping the recycling clean and non-contaminated.
- 3.** Explore the use of split system collection vehicles during the kerbside tender process.
- 4.** Review and update the Environmental Local Law No. 3 following the adoption by Council of this strategy.
- 5.** Continue night-time kerbside collection in any new collection contracts.
- 6.** Trial devices designed to keep bin lids closed until they are tipped upside-down. If successful decide how to distribute to households.
- 7.** Undertake a FOGO collection trial in Autumn 2018.
- 8.** Following a successful FOGO trial Council will develop a business plan to rollout a FOGO collection for all households.
- 9.** Replace the ageing bin fleet at the beginning of the new kerbside collection contract.
- 10.** Install RFID tagging in its new kerbside bin fleet and the bins used for the FOGO trial.
- 11.** Include a condition for developers, requiring the submission of a waste management plan as part of the planning process. This will be applied to all multi-unit development applications. Council will reserve the right to not provide the kerbside collection service to any development deemed not compliant with this condition.



Rethink (avoid)

- 12.** Support the reduction in plastic bag use and encourage the City's retailers to implement more environmentally friendly reusable or recyclable shopping bag options. Advocate to state and federal governments on the issue. Support, empower and promote community-driven initiatives to reduce plastic bag use and raise awareness about the issue including the Boomerang Bag initiative the Plastic Free Alliance and Unpackaged.
- 13.** Review public place bin and dog bag dispenser locations and in liaison with stakeholders, install where gaps are identified. Conduct a campaign raising awareness, increasing Local Law enforcement and educating the community about the impact of leaving dog excrement in public places and how to easily "bin and bag it".

Reduce and Reuse

- 14.** Explore a sustainable reuse shed model site and search for relevant and feasible opportunities.
- 15.** Seek opportunities to recycle and recover construction and demolition materials from its own operations where there are environmental and financial benefits.
- 16.** Continue to coordinate Clean Up Australia Day and encourage and support school and community groups to get involved in clean-ups throughout the year.
- 17.** Continue to support and promote opportunity shops and community reuse events where possible. Keep abreast of initiatives such as the Garage Sale Trail and look for opportunities where this type of initiative may add value in the future.
- 18.** Trial strategies to counter illegal dumping to find the best fit for each situation.

Recycle

- 19.** Continue to work with licenced landfill operators and work to reduce the volumes of material going to landfill by increasing recycling diversion and removing organics from the waste stream.
- 20.** Work with BSWWRRG to advocate a fair share of the grants from the sustainability fund to assist the Council in addressing waste management issues and recycling and reuse innovation.

- 21.** Investigate the container deposit legislation debate while continuing to promote and encourage greater community participation in public place and kerbside recycling. This will include contributing to research efforts of the regional group and State Government to quantify the impact on kerbside recycling and obtain objective data regarding litter reduction.
- 22.** Promote and support Western District Employment Access and other not-for-profits working in the recycling sector.
- 23.** Advocate for increased product stewardship programs where the cost of recycling is embedded in the initial purchase price.
- 24.** Consider providing purpose-built waste and recycling receptacles in precincts for specific users. For example public bins for use by tourists situated at the Visitor Information Centre car park.

Recover

- 25.** Seek out and support new technologies and innovations in the field of waste management that provide sustainable outcomes and efficiencies. Waste to energy will be explored as an option.

Treat

- 26.** Work with Sustainability Victoria (SV) to ensure the Detox Your Home annual collection continues in the future as a valuable service to the community.
- 27.** Support and promote the Detox Your Home permanent site in Warrnambool and encourage businesses to use the service. Council will work with SV to ensure this program continues.
- 28.** Meet responsibilities in relation to Braithwaite Street former landfill site, as required by the EPA Post Closure Pollution Abatement Notice, until such time as the site is deemed inert.
- 29.** Install additional biofilters at Braithwaite Street former landfill site to further reduce greenhouse gas emissions from the City.

Disposal

- 30.** Identify if there is a need to work with relevant stakeholders to develop a proactive approach to

Council will consider options for households to upsize their recycling bin to handle more recyclables.



managing the habitual dumping of hard waste in specific neighbourhoods within the municipality.

- 31.** Following education and training in this area, develop an illegal dumping action plan.

Education

- 32.** Review and update the Waste and Litter Education Strategy and develop an implementation program.
- 33.** Explore and trial differing methods of educating the community including technology innovations and implement those that are proven successful.
- 34.** Develop education material in other languages to communicate Council's resource recovery and waste management messages to all the community.
- 35.** Update the Warrnambool Recycling and Disposal Services Directory annually.
- 36.** Update the op shops map and flyer annually.
- 37.** Improve communication with businesses to increase promotion of local recycling services and opportunities for waste reduction. Begin the conversation with the commercial sector about circular economy thinking.
- 38.** Use the Sustainable Living Festival as a major venue for educating the community about sustainability, the waste hierarchy and resource recovery.
- 39.** Consider increasing waste management officer hours from 0.6 to 1 EFT to implement this strategy and devote more time to education and awareness programs.

Infrastructure

- 40.** Review resources assigned to the collection and maintenance of public place bins and adjust where this can be justified. Commit to repairing and maintaining public place bins in good and workable condition and develop a maintenance program.
- 41.** Council will continue to install drainage system litter traps where appropriate and work to progressively improve stormwater quality. Priority will be given to resourcing and developing maintenance programs for existing litter traps so that they can function optimally.

Resourcing and collaboration

- 42.** Council will continue to explore opportunities for regional co-operation and realising of financial and other advantages through economies of scale.
- 43.** Commit to allocating budget to the Barwon South West WRRG local government program and to ensuring Warrnambool's needs are being addressed through the program.

Reporting

- 44.** Performance against the criteria listed in the strategy will be reported annually to the Council.

2. Context

About Warrnambool

The Warrnambool municipality is 120 sqkm in area and situated in the Great South Coast Region of Victoria, 263 km south-west of Melbourne.

It contains the urban area of Warrnambool and the nearby towns of Allansford, Bushfield and Woodford. The city has a population of 34,000 and this figure is forecast to approach 50,000 by 2035.

Warrnambool serves as a centre for a regional population of approximately 120,000 people. It contains a Deakin University campus, a TAFE college and a base hospital. The major employment sectors are health care and social assistance, retail trade, manufacturing, education and training, accommodation and food services and construction. The Great South Coast region features some of Australia's most fertile agricultural land much of which is dedicated to dairy and beef production. Three major dairy manufacturers and a large meat processor are situated in and around Warrnambool providing a major source of employment.

Legislation and Policy

Federal

The *National Waste Policy* sets Australia's waste management and resource recovery direction to 2020.

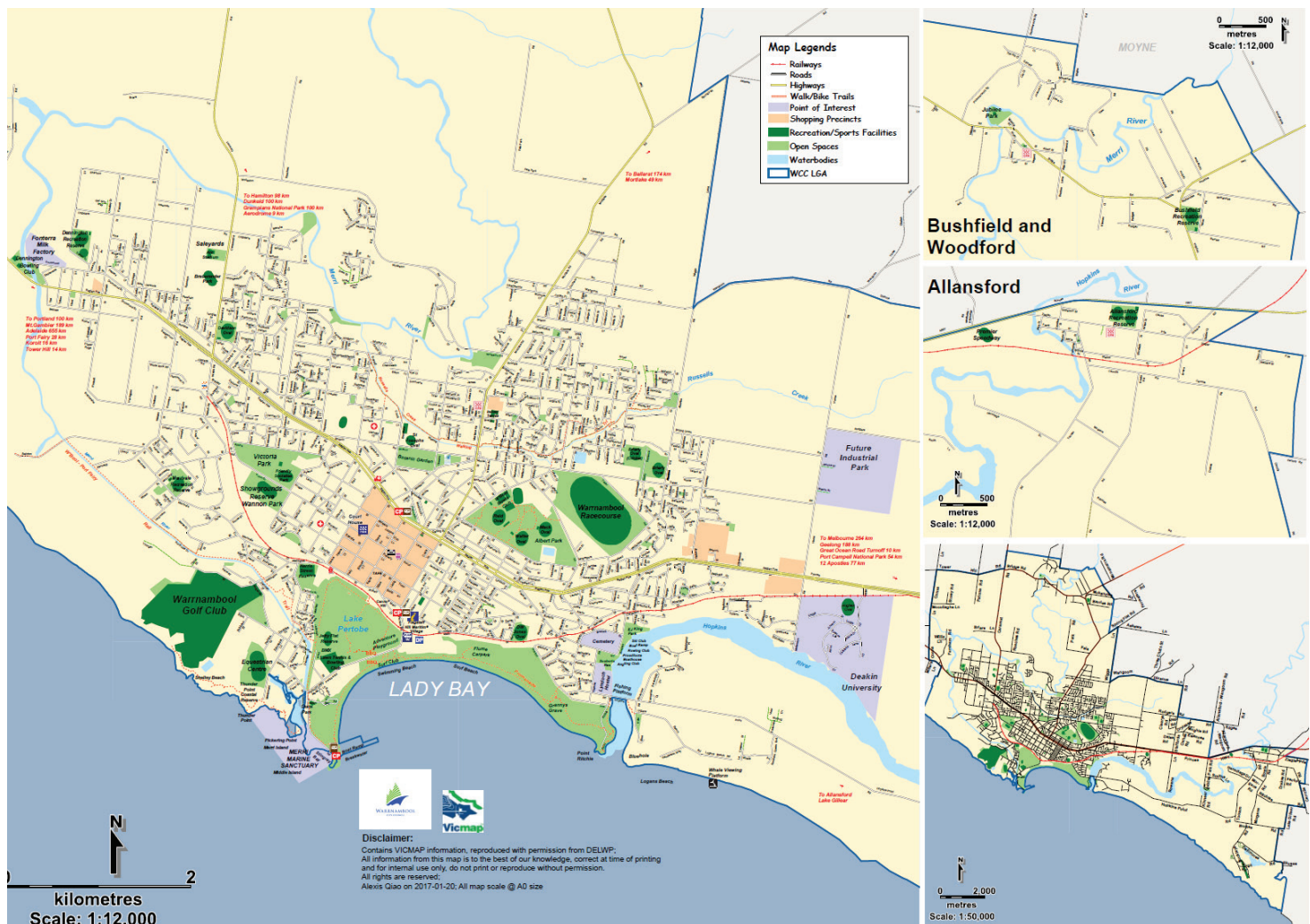
The policy has six key areas:

1. Taking responsibility.
2. Improving the market.
3. Pursuing sustainability.
4. Reducing hazard and risk.
5. Tailoring solutions.
6. Providing the evidence.

The policy also complements other government action to deliver greenhouse gas emission reductions, reduce energy and water use, support jobs and invest in future long term economic growth.

A strategy arising from the policy is the [Product Stewardship Framework](#) legislation.

The Product Stewardship Act 2011 provides the framework to effectively manage the environmental, health and safety impacts of products and in particular those impacts associated with the disposal of products. The framework includes voluntary, co-regulatory and mandatory stewardship.



Initiatives to date include:

- [National Television and Computer Recycling Scheme](#)
- Product stewardship for end of life tyres
- Product stewardship for mercury containing lamps – [FluoroCycle](#).

(b) State

The Local Government Act 1989 assigns responsibility to councils for providing (either directly or through contractors) the collection, transport and reprocessing or disposal to landfill of municipal solid waste for their communities. (This does not require local government to manage disposal facilities such as landfills)

The Environment Protection Act 1970 is important state legislation relevant to this Strategy.

The Victorian Government has also developed various documents to provide strategic direction and promote the recovery of resources from the waste stream over the next thirty years. The overarching strategic document is the [State Waste and Resource Recovery Infrastructure Plan](#) (SWRRIP) which was released by the Victorian Government on 12 June 2015.

The SWRRIP is intended to help position Victoria as the national leader in resource recovery and waste management. It provides a roadmap to guide the development of a system that will effectively manage the waste we generate, balancing the provision of this essential service and support for a viable resource recovery industry with the need to protect the community, environment and reduce greenhouse gas emissions.

This plan is further supported by the:

- *Victorian Organics Resource Recovery Strategy*
- *Collaborative Procurement Framework*
- *Victorian Market Development Strategy for Recovered materials*
- *Infrastructure Facilitation Framework*
- *Community and Business Waste Education Strategy*

In addition to the above the Victorian Government has developed a performance reporting framework to ensure all councils are measuring and reporting on their performance in a consistent way.

The framework became mandatory from 1 July 2014.

Indicators for waste management kerbside collection are included in the reporting framework.

Sustainability Victoria and the EPA also have mandatory annual reporting requirements about waste management services, providing further benchmarking for councils.

The Regional Context

The Warrnambool City Council is a member of the Barwon South West Waste and Resource Recovery Group (BSWWRRG).

The group is a Statutory Authority established under the Environment Protection Act 1970. The group commenced on

1 August 2014 as an amalgam of the two previous Barwon Region and South Western Region Waste Management Groups.

The BSWWRRG is one of seven Waste and Resource Recovery Groups that cover regional Victoria. The groups now also have the responsibility of commercial and industrial waste (C&I), construction and demolition (C&D) as well as municipal solid waste (MSW).

The region takes in the south west coast of Victoria covering an area in excess of 32,340 square kilometres and a population of approximately 398,600. It is anticipated that this will increase to some 462,000 by 2030. The region comprises nine local government authorities.

The group has developed a [Regional Waste and Resource Recovery Implementation Plan](#) (RWRRIP), approved by the Minister on 29 th June, 2017. The plan proposes 12 priority actions to improve recycling rates, reduce waste to landfill and plan for the region's future sustainability and infrastructure needs.

These actions impact the City's Resource Recovery and Waste Management Plan and are essential to the implementation of the Council's Plan.

The Environment Protection Act 1970 states: "a council must perform its waste management functions consistently with the Regional Waste and Resource Recovery Plan applying to the council's municipal district."

Of particular significance to this strategy are the following priorities:

Priority action 1 – Facilitate behavioural change to improve source separation, participation rates, resource recovery and reduced contamination.

Priority action 2 – Facilitate the aggregation of material streams and/ or services through collaborative procurements to improve economies of scale and cost efficiencies.

Priority action 11 – Support the development of innovative and viable ways to increase recovery of priority materials including organics, wood/timber, plastics and textiles.

The BSWWRRG will be developing a regional education strategy which will be instrumental in driving the direction of Warrnambool's education program. The council is supportive of this due to the financial and social benefits of educating the community on a regional basis. Standardised kerbside and public place recycling systems across the region are also viewed favourably as this will afford synergies in raising awareness and promoting the message to the community.

Council is also an active participant in developing the *BSWWRRG Local Government Program*. The aim of this program is to identify regional issues and programs where it is deemed beneficial for councils to pool funds to address these issues on a regional basis. The council will continue to commit to allocating budget to this program and to ensuring Warrnambool's needs are addressed through the program.

Local Policies and Strategies

(a) **Council Plan 2017- 2021**

The Council Plan is a strategic document required by the Local Government Act to be adopted by Council within the period of six months after each general election or by the next 30 June, whichever is later. It sets out the key directions and priorities of the council over a four year period. It articulates the Vision, Objectives and Strategies of the council.

Of specific relevance is an objective to "Sustain and enhance the natural environment".

Strategies within this objective include:

- Protect and enhance our waterways, coast and land.
- Commit to being a carbon neutral city by 2040
- Review options for managing waste with a strategic indicator being diversion of waste from landfill.
- Educate the community on council's sustainability initiatives.
- Partner with the community on local sustainability projects.

Through the Council Plan there is commitment for the following:

- Introduce measures to reduce litter spread through improved equipment, education and enforcement.
- Undertake a food organics and garden organics trial to divert material from landfill.
- Work with the community to advocate for Warrnambool to be a plastic bag free city.

These are some of the drivers for the development of this plan.

(b) **Climate Change Action Plan**

Council adopted a Climate Change Action Plan in 2012.

The council has committed to "reduce greenhouse gas emissions." The Action Plan sets a target of reducing Council's emissions by 30% by the year 2020.

(c) **Environmental Sustainability Strategy – 2008-2015 (due for review)**

This strategy was adopted in 2008 and is now due for review.

The strategy contains a number of priority themes relevant to this strategy.

These include – Climate Change and resource efficiency, waste recycling and pollution.

(d) **Waste and Litter Education Strategy – 2005-2008 (due for review)**

This strategy has informed Council's education initiatives over a number of years. The strategy needs a comprehensive review to ensure current relevance and integration with the State and regional education strategies.

(e) **Warrnambool Open Space Strategy 2014 – the purpose of this strategy is to provide an overarching**

framework to direct open space planning and management to 2026. It provides guidance on the provision of bins in council's public open spaces.

(f) **Local Laws No.3**

Part 5 of the Local Law refers to the Disposal of Waste, while Part 9 – Standards - sets out a number of standards in relation to domestic waste.

The Local Law was adopted by Council on 20th April 2009. A number of aspects of the Local Law do not reflect current best practice and need to be reviewed and updated.

A sunset provision provides that a Local Law ceases to operate 10 years after the date that it came into operation.

Council will review and update the Environment Local Law No.3 following the adoption by Council of this strategy.

- spaces, illegal dumping.
- Number of litter fines issued in a given timeframe.
- Use of the VLAA litter tool in litter hotspots before and after any litter campaigns.

Contractor's internal performance.

Measured by:

- Audits of internal processes.
- Number of complaints.

Reduction in greenhouse gas emissions.

Measured by:

- Waste to landfill figures.
- Improvements in technology and fuel usage of collection and transport vehicles.
- Reduction in transport kilometres due to improvements in collection scheduling and joint procurement.
- Increase in number of biofilters processing landfill gas from 2017 levels.

Number of people visiting the waste page on council's website

Measured by:

- Number of web page hits

Increase in number of public place recycling bins.

Measured by:

- Increase from 2017 levels.
- Capturing public place recycling material data.

Contamination in Kerbside bins.

Measured by:

- Kerbside bin audits.

Residents' satisfaction with the kerbside collection service.

Measured by:

- Annual independent community satisfaction surveys conducted for all Victorian councils.

Drivers for Change

The Waste Hierarchy (waste pyramid)

The concept of a “waste hierarchy” that is ranking ways of dealing with waste in order of preference has been almost universally adopted as a guiding management principle by governments internationally and in Australia. The waste hierarchy sees avoiding the creation of waste as the most desired outcome, while landfill disposal is the least desired outcome.



Rethink (avoid) and Reduce

Council cannot control what households buy and dispose of but can provide education to encourage steps to reduce the creation of waste and put in place processes and systems, such as resource recovery to minimise waste to landfill.

Reuse

The reuse of materials that would otherwise end up in the waste stream can provide a variety of social and environmental benefits. E.g. the City can support and promote community based reuse organisations, such as WDEA. Principles of reuse can underpin activities occurring across council facilities and services such as childcare centres, kindergartens, council's holiday program and Fun4Kids Festival.

Recycle

Public place and kerbside recycling services provided by the City and other local recycling activities and services are a key way of reducing the economic and environmental impacts of managing waste.

Recovery

Energy from waste technology is still in the early stages of development in Victoria but offers potential to reduce disposal rates in the future by recovering energy resources from materials that would otherwise be landfilled. Waste to energy technology also provides a renewable energy source.

Some large landfills collect and utilise landfill gases to generate electricity and sell energy back into the grid. The City's former landfills were not large enough to justify the capital expense for landfill gas capture.

Treat and Dispose

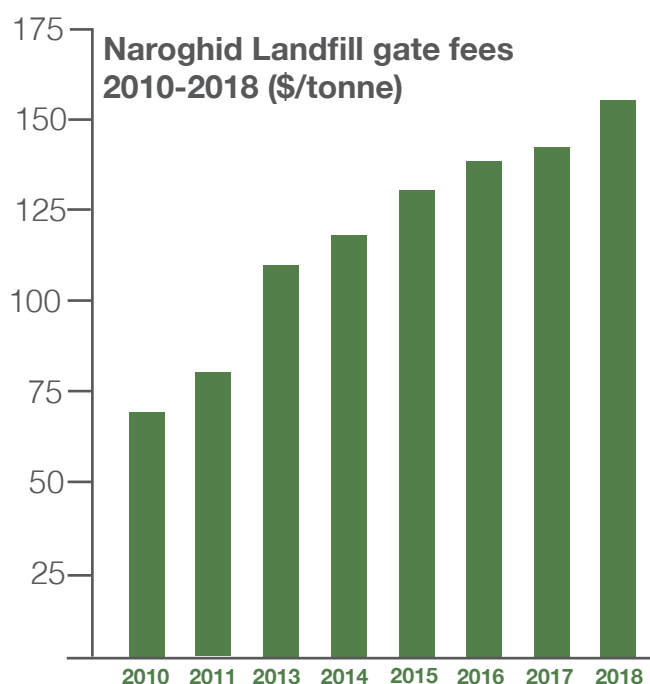
Disposal is the least preferred option, however for the foreseeable future there will be residual and/ or hazardous wastes for which landfill remains the only or best option. While there are no potential landfill sites within the City it is important for the Council to monitor availability and maintain cost effective access to landfill sites in the foreseeable future.

Costs

There is a State Government objective to incentivise alternatives to landfill which is driven by the landfill levy. In some countries due to lack of space and resources this is a necessity but in Australia where there is generally plenty of space, the landfill levy is used as a mechanism to make resource recovery more feasible as an alternative to landfill.

In south-west Victoria there are significant costs associated with landfilling including the construction and rehabilitation of landfills to Best Practice Environmental Management standards (BPEM), the cost of transporting waste to regional landfills and the landfill levy.

Since 2010/2011, the cost of landfill gate fees has increased by 47%. This is due to both the increasing cost of the landfill levy and increasing requirements of the Landfill BPEM. This financial impact in itself is a significant driver for change, even before considering environmental or lost resources costs. It is also a factor leading to the closure of a number of landfills in Victoria.



Reducing waste management costs for the city into the future requires a multi-faceted approach.

- Community education (which leads to sustainable behaviour change) about reducing or avoiding waste creation = decrease in landfill costs
- improving recycling in the City by reducing contamination in the kerbside recycling bin = decrease in transport costs
- improving and extending public place recycling = decrease in landfill costs
- raising awareness of the recycling services provided in the city = decrease in landfill costs for the council and local businesses.
- lobbying for stricter product stewardship policy = more options for recycling more products and materials paid when a product is purchased.
- lobbying for a bigger share of the EPA landfill levy to return

to the region to fund:

resource recovery innovation = decreased landfill costs
removal of FOGO from the landfill bin.
(which is 40% by weight of landfill bins)
= decreased landfill costs

In the 2015/16 financial year the landfill levy component paid to the EPA for landfill disposal costs was \$195,024. Council needs to stay abreast of developments, innovations and technology in waste management and resource recovery and may at some point be in a position to lock in a gate fee for a period of time for the foreseeable future. This would provide surety in a volatile market however it should not detract from council's overall vision of avoiding waste and reducing waste to landfill. Council must not surrender ownership of the waste without careful consideration as waste may become more of a resource and commodity in the future.

Rateable properties are levied a Waste Management Charge which includes supply of bins, weekly collection of 80 litre garbage and fortnightly collection of 240 litre recycling bin. This service also includes disposal to landfill, transport, delivery to and sorting of recyclables collected, education, promotion, community engagement, bin repair and replacement.

This Waste Management Fee also contributes to:

- Maintenance and upgrade of stormwater protection
- Footpath and street sweeping
- Litter collection in the CBD, parks, reserves and illegal dumping clean up
- EPA compliance and environmental monitoring of Braithwaite St Closed Landfill site and any related works.
- Regional projects through the BSWWRR Local Government Program
- Rubbish, recycling and green waste disposal generated by council operations, including innovations for increased resource recovery of material generated through these operations
- FOGO kerbside collection trial
- Corporate administration/management

Council will continue to advocate to receive a fair share of grants from the Sustainability Fund to assist Council in addressing waste management issues.

Reducing Greenhouse Gas

The City in 2012 adopted its first [Climate Change Plan](#), the plan aims to quantify and manage council's greenhouse gas emissions. It provides direction about building environmental, social and economic resilience to Climate Change and sets a target of reducing Council's emissions by 30% by the year 2020.

With Council's ongoing commitment to achieving this target and signing the [Take 2 pledge](#), the most significant action to undertake is the introduction of a Food Organics Garden Organics (FOGO) kerbside collection service. Greenhouse gases produced by food waste in Australian landfill each year is equivalent to the emissions of Australia's steel and iron ore

industries combined.

Source: www.watchmywaste.com.au/food-waste-greenhouse-gas-calculator

Greenhouse gases are gases that trap heat in the atmosphere, slowing the rate at which energy escapes to space; they act like a blanket insulating the Earth. Landfilling of FOGO creates the greenhouse gas methane which has a Global Warming Potential (GWP) of 25. This makes methane one of the most potent greenhouse gases, with the waste sector accounting for 3% of total net greenhouse gas emissions from human activity in Australia. Around 76% of waste sector emissions come from methane released from food and green waste breaking down in landfills.

Source: April 2010, Report to Dept of EWHA, Climate Change and the Resource Recovery and Waste Sectors.

Based on current kerbside waste generation figures, and taking into account collection, processing and landfill emissions, if FOGO is diverted from landfill bins, there could be a potential reduction in greenhouse gas emissions of more than 4,000t CO₂ annually. This would increase again if processing facilities were upgraded from open windrow to aerated static pile or in-vessel (enclosed) composting systems.

Source: Review of Joint Waste Services, MRA 2017

Waste Projection

In the decade to 2016 the city's population grew by an estimated 3,300 people, however the annual amount of waste generated through kerbside collection has not increased significantly over the past decade.

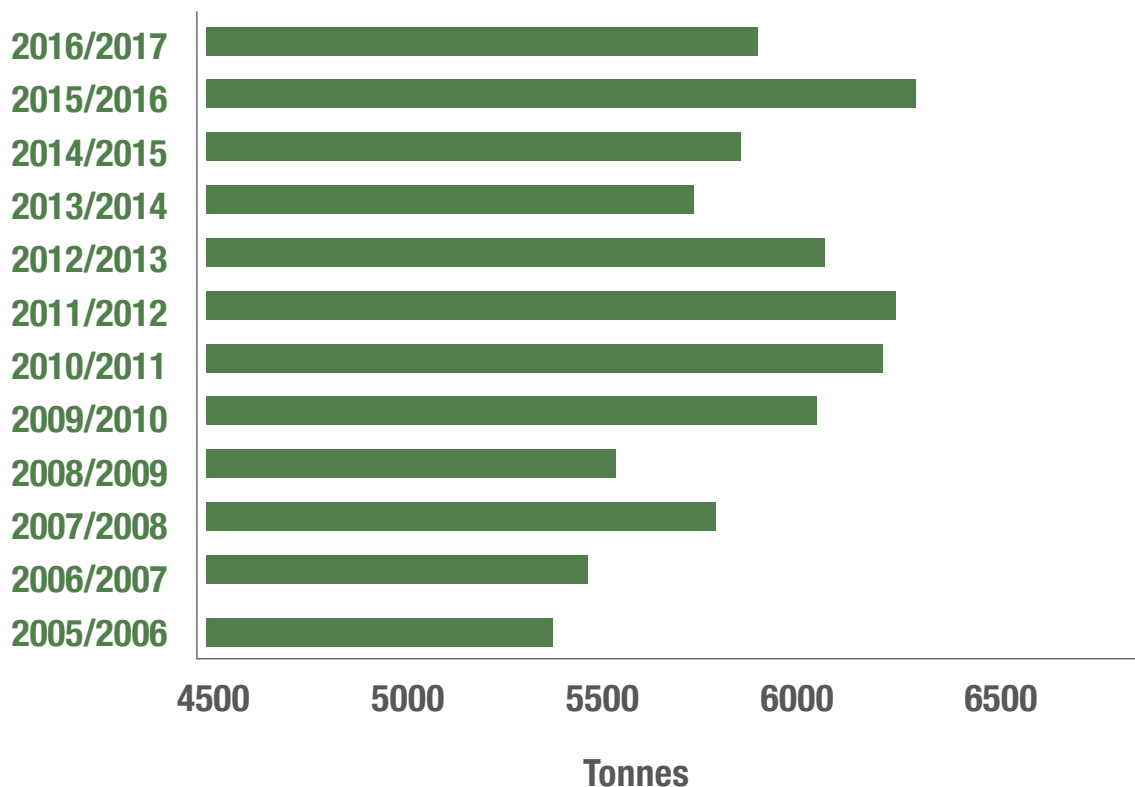
The city's population, currently 34,000, is predicted to approach 50,000 by 2035. An increase of 15,000 people over 20 years should see a significant increase in waste generation, however this has the potential to be offset by improved diversion rates, where residents are recycling more material such as FOGO which currently goes to landfill.

This increase in population will bring a number of challenges in resource recovery and waste management, including:

- Alternative options for collection from multi-unit dwellings.
- Increasing landfill costs
- Potential increased demand for public place bins
- Local landfill space decreasing, potential to have to look further afield for landfill services – increased waste transport costs

Population Growth, Development and Future

10 years of kerbside collection landfill waste tonnages for WCC 2005-2017.



These telephone surveys measure community views about their council's performance in a number of areas, and compare with councils within a group of like councils, as well as state-wide comparisons.

The survey is conducted by the Department of Environment, Land, Water and Planning. Local residents and ratepayers in each municipality over 18 years of age are selected at random.

Waste management performance and environmental sustainability are two of the twenty six measures surveyed. Waste management consistently appears in Warrnambool's results as a top priority area of importance. The councils 2016 performance index score was 70 down from 74 in 2015. This compares to average regional centres' satisfaction of 69 and an average state-wide satisfaction score of 70.

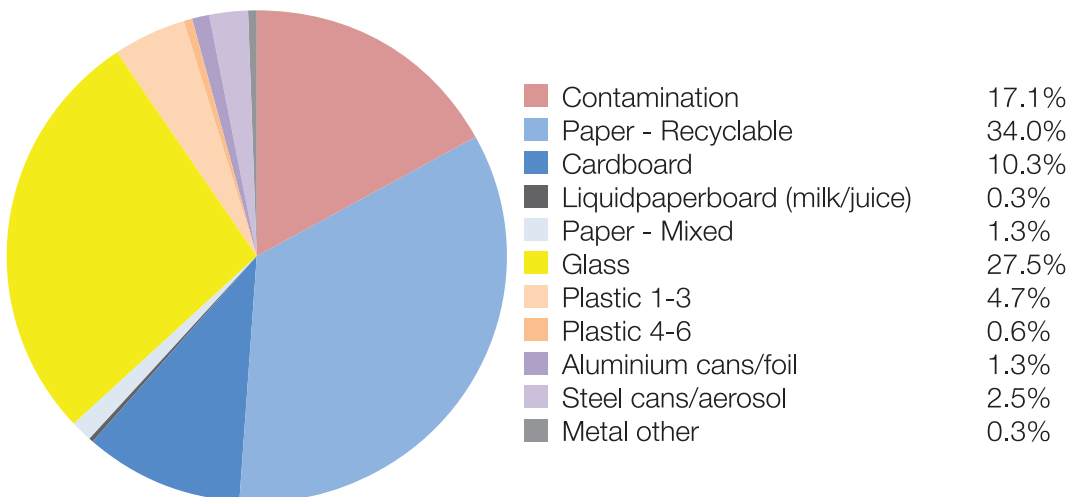
Performance against the criteria listed in this section will be reported annually to Council.



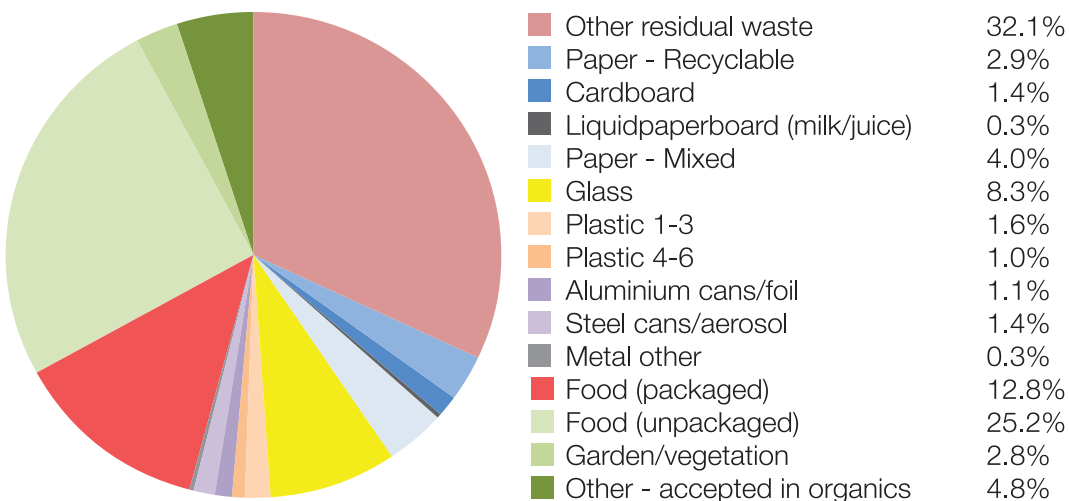
Batteries are now easily diverted from landfill via a number of drop-off sites in Warrnambool.

Kerbside Bin Audit 2014

Composition of recyclables



Composition of waste



3. Services Provided by the City and its Partners

Council is currently responsible for:

- Domestic waste and recycling kerbside collection and disposal / recovery of material.
- Street and footpath cleaning
- Stormwater protection
- Public place bins including waste and recycling bins. Public places include the CBD, foreshore, Lake Pertobe,

- parks, gardens and recreation reserves.
- Promotion of commercial and community group based recycling services.
- Partnering with and hosting programs such as Detox Your Home – annual mobile collection of household chemicals and the Permanent Detox Your home site at Statewide Recycling.
- Managing past legacies (closed landfills).

Commercial and community based services will also be explored in this chapter.

Material collected	Size of MGB	Lid colour	Frequency of collection	Contractor
Recycling	240 litre	Yellow	Fortnightly	Wheelie Waste Pty Ltd
Waste	80 litre	Red (some green)	Weekly	Wheelie Waste Pty Ltd



Domestic Waste and Recycling (kerbside collection)

Currently households in Warrnambool are serviced by a compulsory two mobile garbage bin (MGB) system. Each service is provided to residences between the hours of 10pm and 10am.

The council's kerbside collection is currently carried out under a contract that commenced on July 1, 2012. A one-year contract extension has been entered into, with the contract now expiring on June 30, 2019. A further one-year contract is possible within the provisions of the contract. The contract includes collection from over 15,000 tenements. This figure grows at approximately 17 new tenements per month.

The collection occurs throughout the night and the collection schedule is based on the most efficient route taking into account the area of collection and distance to the transfer station.

Currently there are over 30,000 MGBs in use across the City for the purpose of the kerbside collection. The kerbside collection bins must remain at the property to which they are allocated and the householders are the stewards / guardians of the bins, however the bins remain the property of the council.

Currently the repair and maintenance costs of MGBs are included within the contract fee. The cost of bins to new

dwelling is included in the Waste Management Fee and amortised over the life of the contract.

Council is currently paying for lost and stolen bins. This cost is not passed onto the householder. This will be reviewed for the next contract as the number of lost or stolen bins is an issue. Research into MGB technology and tracking will occur prior to the new contract with the aim of introducing Radio Frequency Identification Device (RFID) tagging in Warrnambool's new bins.

RFID tagging is becoming a standard feature in MGBs and the council would primarily use the technology for identification purposes and as a method of reducing the high number of lost and stolen bins.

The tagging can also be used for other purposes such as detecting contamination in recycling bins and ultimately weighing bins. This technology may be used in the future if it is deemed beneficial.

Kerbside Recyclables – Transport and Acceptance

The value of recyclables has increased significantly. Five years ago council was paying \$90 per tonne for recyclables transported to Melbourne or Geelong, currently the transport cost of recyclables is offset by the value of the recyclables delivered to the MRF.

Kerbside recyclables are deposited via a sub contract at Warrnambool Transfer Station. Barton's Waste bulk-hauls the material to a VISY Material Recovery Facility (MRF) located in Springvale.

Once the recyclables are collected at the kerbside they then become the property of the contractor. However, through the contract, council must sight the agreement between the MRF and the contractor. This provides surety about the destination of Warrnambool's recyclables.

Consideration could be given in the next contract to the

option of council owning the material collected from kerbside recyclables and being paid for it by the MRF.

This decision must be well researched however as the cost of transporting recyclables may be greater than the amount council is paid for the material. Also if council receives payment for recyclables there may be increased responsibility on council's part to ensure very low contamination rates.

Prices paid by industry for the various materials, (glass, paper, steel, aluminium and plastic) varies significantly and can depend on international prices. Under the current arrangement the council is protected from significant price fluctuations.

Waste Disposal - Disposal Sites

All kerbside garbage is consolidated in Warrnambool then transported to the Corangamite Regional Landfill at Naroghid. The site is owned and operated by the Corangamite Shire. The Warrnambool City Council and the Corangamite Shire entered into an agreement in April 1999 which set out the conditions under which the relationship operates. The council pays the landfill gate fee directly to Corangamite Shire which includes the EPA levy.

The fee is based on the tonnage delivered across the weighbridge located at the landfill.

In future kerbside collection contracts the "ownership" of the collected material will need to be determined as another option is for the contractor to "own" the collected material as is the case currently with the kerbside recycling.

The estimated life of the Naroghid site is 55 years at current volumes. The distance from Warrnambool to Naroghid is about 65km.

An EPA licensed landfill at Pomonal Road Stawell operated by Statewide Recycling Pty Ltd is currently the disposal site used by two South West municipalities. The site is licenced to accept municipal waste, commercial and industrial, asbestos and category C soil. This site is about 190km from Warrnambool.

Southern Grampians Shire Council at its meeting held on February 22, 2017 resolved to: "Shelve Hamilton Landfill and install a transfer station while keeping the landfill licence open for future use".

There are now very few options for landfill disposal within the region.

The costs for establishing and operating a licenced landfill are considerable. The timeframe and regulatory hurdles for the establishment of a new landfill are a disincentive to the establishment of any new site.

Over recent years all of the smaller unlicensed municipal landfills within the region have been closed as well as some larger licensed sites.

It is essential that Council manages its relationship with licenced landfill operators and works to reduce the volumes of material going to landfill by increasing recycling diversion and

removing organics from the waste stream.

Council has received a ministerial exemption for the depositing of garbage at Corangamite Regional Landfill.

Transporting Waste for Disposal

Council's kerbside collection contractor has the responsibility of the kerbside collection but is also required to deliver the collected waste material to the nominated landfill.

The kerbside collection vehicles deposit the material collected at Warrnambool Transfer Station, where it is transported in B Doubles to Naroghid.

Kerbside collection trucks generally have a capacity of 14 cubic metres while the B Doubles have a capacity of 150 cubic metres. This results in considerably greater efficiencies and less truck traffic on the highway.

Street Cleaning

An important element of Council's waste management activities is the regular street cleaning program.

Street and footpath sweeping also provides a cost effective maintenance regime for these assets as the accumulation of soil and silt significantly affects the performance of the road or footpath surface.

Grass can grow on accumulated soil or silt left on roads or caught in cracks. In turn the grass roots can penetrate between the concrete edge of the kerb and the edge of the seal, lifting the seal and letting water in. Once water penetrates the seal, it causes a weak spot to develop in the surface and ultimately failure, such as a pothole will occur.

Blocked gutters can also lead to the flooding of property and the resources required to dig out blocked side entry pits (gutters) are significant as this must be done by hand.

Effective and timely road and footpath sweeping can significantly reduce the amount of waste entering the environment and in Warrnambool's case this will usually mean the marine environment.

Street sweeping involves the mechanical sweeping of selected roads, car parks and other hard standing areas. This includes kerb stops, kerb and channel, traffic islands, roundabouts and car parks.

Council's road sweeper commonly operates on a Monday to Friday commencing at 4am and finishing at 12.30pm. On Saturday and Sunday it operates in commercial areas for four hours each day. Adopted performance standards require the CBD to be cleaned daily, Raglan Parade monthly and other streets twice a year. This however is impacted by annual budget decisions with currently some residential streets swept once annually.

Pathway sweeping is undertaken to remove litter, dirt, loose

stones and debris from footpaths in the city centre. Council's Tennant Green Machine sweeper operates from 5.30am to 11.30am Monday to Friday and for four hours each Saturday and Sunday.

Emptying of Council managed cigarette butt bins is also undertaken by the footpath sweeper operator. There are also cigarette butt bins in the City that are maintained privately.

Stormwater Protection

The protection of the marine environment from waste pollution is of critical importance. This is even more so with Warrnambool's location on a number of waterways, bays and ocean.

Litter entering the drainage system will ultimately pollute these environments and cause considerable damage to marine life as well as water quality. Careless dropping of litter along with escaped wind-blown litter are all issues that need to be addressed.

While education, better kerbside bin design and street litter bin design can all assist, a further level of protection is necessary.

There are currently a total of 22 in-line stormwater drainage litter traps throughout the municipality.

A number of different types exist ranging from end of pipe outfall nets, in-line baskets to sophisticated gross pollution traps (GPT). These require regular cleaning and particularly after heavy rainfall. Presently this specialised equipment is not available locally and has to be sourced from Geelong.



Above: gross pollution trap.

Past education programs regarding stormwater protection have included stencilling of stormwater pit lids and cigarette butt campaigns.

Council has also worked with the Plastic Free Alliance, comprising many local environmental groups including Fishcare South West and Friends of the Merri Marine Sanctuary (FOMMS) to raise awareness about the impact of single use plastics, such as plastic bags, plastic straws and plastic water bottles on our marine environment.

Council will continue to install drainage system litter traps where appropriate and work to progressively improve

stormwater water quality. Specialised litter traps, such as GPTs, are very expensive to install. Priority will be given to resourcing and developing maintenance programs for existing litter traps so they can function optimally.



Above: pipe and mesh outfall net. Small items, including cigarette butts still pass through and enter the Hopkins River.

Work will also be carried out to improve kerbside and public place bin design and to increase infringements against litterers.

Council will continue to support the work of environmental and community groups which are raising awareness of the problem and will continue involvement in the Plastic Free Alliance, lobby the Ban the Bag campaign and support development of a [Boomerang Bag](#) initiative in Warrnambool.



Reusable bag initiative: Boomerang Bags.

Public Place Recycling and Waste Bins

Council provides a comprehensive network of public place bins across the city's streets and public open spaces. Council performs 1,500 rubbish bin collections weekly at the city's 493 waste bins. Public place recycling bins currently number 100, but this number is growing with council installing recycling options where possible at waste bin locations.

The latest recycling rollout involved 61 recycling stations installed at all of the fifteen recreation reserves across the city.



Council will maintain public placed bins in working condition.

As there are already a significant number of public place bins serviced across the City, not all public places are allocated a bin. The Open Space Strategy provides the decision making framework for the installation of public place bins.

Due to the significant staffing resources of emptying and maintaining public place bins, public places are prioritised based on their usage and categorisation. According to the strategy, public spaces categorised as Local or Neighbourhood parks are not allocated a bin. The expectation is that these spaces are used by locals or neighbours who are able to take their rubbish and recycling home.

Council provides a number of dog waste bag dispensers along the foreshore to encourage residents to pick up after their dogs. This is not an established behaviour or cultural norm in Warrnambool and dog droppings left behind in public spaces are a common occurrence. Domestic animal excrement is normally acceptable in FOGO collection.

Defining precincts where public place bins are provided for specific users could be given consideration, for example bins for tourists travelling in campervans. These tourists are not currently catered for and while it is expected that they will take their waste to a transfer station this may not be a realistic expectation.

Council will review resources assigned to the collection and maintenance of public place bins and adjust where this can be justified.

Council will also commit to repairing and maintaining public place bins in good and workable condition on an ongoing basis.

Commercial Waste

Council does not directly manage any commercial waste except for tearoom waste and recycling from some businesses external to the CBD. This tearoom waste is collected as part of the kerbside collection and these businesses receive the same service as households.

The intent of this is not for Council to manage the 'business' type waste but to provide an easy to use and cost effective method for businesses dealing with small amounts of non-industrial or non-hazardous waste.

Council is striving to improve communication with businesses to increase promotion of local recycling services. For example a food organics collection is available for businesses. This would significantly reduce the amount of material going to landfill from local restaurants and cafes.

Detox Your Home

This service provides a safe, free and easy-to-use way for households to dispose of common household chemicals. It is dangerous to put chemicals in the regular rubbish bin as they may explode, ignite or leak. Pouring chemicals down the drain will pollute waterways, potentially contaminating drinking water supply and making rivers and beaches unsafe for swimming.

Council will work with Sustainability Victoria (SV) to ensure this annual collection continues in the future as a valuable service to our community.

Statewide Recycling currently hosts a [Detox Your Home](#) permanent site. This service is funded by SV and is supported and promoted by Council. This site accepts low toxicity, high density products such as batteries, paint and fluorescent lights for no charge to households.

Businesses are charged a fee for disposing of these products at this site. Some businesses believe that this charge is prohibitive and opt to deliver material to a landfill. As the permanent site is ultimately funded by taxpayers it raises the possibility that Sustainability Victoria could review covering the cost of businesses using this site to recycle materials used in their operations.

Council will also continue to support and promote Detox Your Home and encourage businesses to use the service. Council will work with Sustainability Victoria to ensure this program continues.

DrumMuster

[DrumMuster](#) provides Australian agricultural and veterinary chemical users with a collection scheme funded by levies imposed on the sale of farm chemicals and collected by AgStewardship.

The scheme has proven successful over a number of years in removing a large number of containers from the waste stream

and reducing the amount of illegal and inappropriate disposal, while recycling significant amounts of metal and plastic.

Warrnambool's local DrumMuster Agent Cob and Co has recycled over 35,000 drums since inception.

Commercial Waste Services

There are a number of commercial waste services operating in Warrnambool. These services form an important part of the overall waste and resource recovery management sector in Warrnambool and allow for management of most waste streams from the commercial, industrial, construction and private sector.

Recycling opportunities have increased significantly in Warrnambool over the past five to ten years providing the potential for cost savings and environmentally responsible processes for businesses.

Council has developed the Warrnambool Recycling & Disposal Services Directory and commits to updating it on an annual basis in readiness for National Recycling Week. The directory provides a comprehensive snapshot of recycling services available locally, regionally and further afield where there are no options closer to home. The directory is constantly evolving due to constant changes in recycling markets and also in response to resident enquiries which occasionally, research for, uncovers new information or a new or unknown service.

Receiving and Sorting Material (Waste and Recycling)

Transfer Stations

Warrnambool is home to three transfer stations and a resource recovery business:

[Statewide Recycling](#) – 355 Koroit St, Warrnambool
Statewide Recycling hosts the Detox Your Home Permanent site and is open to the general public seven days a week. It accepts :

- Comingled recycling
- Cardboard and paper
- E-waste (TVs, computers and monitors)
- Fluoro Lights
- Clean fill (any combination of soil, sand, bricks, concrete, tiles and rocks)
- Green waste
- Timber
- Plaster
- General waste
- Mattresses
- Furniture
- Tyres (all sizes)
- Oil
- Polystyrene
- Scrap metal
- Whitegoods
- Batteries

[Warrnambool Transfer Station](#) – 20 Harrington Rd

Warrnambool Transfer Station is open to the general public seven days a week. It accepts:

- General waste
- Green waste
- Oil
- Bricks, soil, concrete (clean fill)
- Recyclables (bottles, paper, cardboard, glass, plastic, cans)
- Mattresses
- Scrap metal

[Westvic Waste and Recycling](#) – 3 Hammond Place

Westvic Waste is open to the general public seven days a week. It accepts:

- Building & Construction Waste
- Car batteries
- Cardboard
- Comingled recyclables (yellow top bins) - aluminium cans, paper, plastic and glass bottles
- Green waste
- eWaste
- Household rubbish
- Motor oil
- Scrap metal
- Soil and clean fill
- Whitegoods

Cob and Co Recycling – 25 Dickson St

Cob and Co Recyclers accepts:

- Lead acid batteries
- Chemical drums (DrumMuster agent)
- Aluminium cans & scrap
- Iron & steel
- Paper
- Cardboard
- Plastics – all soft and hard plastics including wrap and strapping.

Reuse and Resource Recovery Facilities and Services

Warrnambool's reuse and resource recovery facilities and services are provided through a myriad of options. In the absence of a dedicated facility there is an ever expanding jigsaw of services provided by many organisations. These organisations are diverse however they are all an important part of the resource recovery sector in Warrnambool. These services include:

- Transfer stations
- Metal merchants
- Recyclers of plastics
- Charity Bins and Opportunity shops
- Disability Enterprises
- Supermarkets
- Detox Your Home
- Community organisations; Warrnambool Community Garden, Unpackaged and SWAPIT
- MobileMuster
- Cartridges 4 Planet Ark
- REDcycle
- Terracycle
- Seal the Loop

- Garage sales
- Car boot sales
- Warrnambool Buy Swap Sell Facebook page

e-Waste

Western District Employment Access provides electronic waste (e-Waste) recycling for Warrnambool and the south west region. e-Waste consists of old, end-of-life or discarded appliances or devices using electricity. It includes computers and accessories, mobile phones, televisions and other electrical appliances.

WDEA offers meaningful employment opportunities for people with a disability. Workers at WDEA help to pull electrical items apart using tools. Components are then sorted, packed and sent to factories across Australia.

WDEA is part of the National Television and Computer Recycling Scheme (NTCRS) <http://www.environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme> through its membership in the National E-WASTE Alliance. The National E-Waste Alliance (NEWA) exists to better enable Australian Disability Enterprises (ADEs) to create financially viable, sustainable e-Waste recycling businesses whilst providing ongoing employment. NEWA establishes markets for the e-Waste product with buyers who are certified or able to prove their downstream markets.

Under the NTCRS this movement of e-Waste commodity is very closely monitored and subject to international laws. The BASEL Convention – of which Australia is a signatory, prevents the movement of e-Waste to non OECD countries where strict environmental standards are not maintained. NEWA is able to provide full reporting on commodity movement.



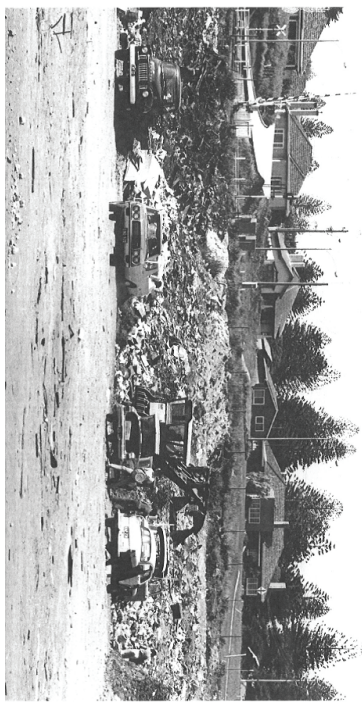
e-waste can be sorted packed and recycled.

WDEA provides a valuable recycling service for local businesses and recycled 234 tonnes of e-Waste from the south west region in 2016. WDEA is an integral part of recycling solutions for Warrnambool, creating a viable option for safe and environmentally sound recycling of electronic items.

The council will continue to promote and support Western District Employment Access and other not-for-profits offering recycling services.

Managing Past Legacies

Council records dating back to 1910 show that over the years many waste disposal sites have operated throughout Warrnambool. Sites have included Ryot Street, Levys Point, Fletcher Jones Quarry site, McDonald Street (trotting track), Harris Street, the Warrnambool Cricket and Recreation Reserve and the Fitzroy Road quarry.



Former landfill site at Harris Street.

These sites are now considered inert and many of the sites have become valuable community assets.

Council's most recent landfill site known as Braithwaite Street operated from 1982 till closure in 1999.

The site was used as a landfill for disposal of domestic garbage, putrescible waste, solid inert waste and limited prescribed waste from 26 March 1982 to 25 August 1999.

After closure the EPA issued a Pollution Abatement Notice (PAN) for rehabilitation and aftercare management of the site. The site has been rehabilitated and Council has complied with all aspects of the after-care management plan and EPA requirements.



Biofilter at the closed Braithwaite Street landfill.



The pump station at the toe of the former landfill

EPA. The objectives of the notice are to address environmental risks and impacts.

The PAN requirements include monitoring and the prevention of the escape of landfill gases, the monitoring and collection of leachate (liquid arising from garbage decomposition) and the continuation of the conducting of environmental audits.

The drainage line that runs through the middle of the landfill to a sump at the toe of the landfill collects leachate. This leachate is then pumped back onto the cap of the landfill via a solar pump and irrigated onto the cap. This system works well except during inundation of the floodplain at the toe of the landfill. Works to separate the floodwaters from the leachate sump will occur in the near future.

Biofilters have been used at the site to reduce the concentration of methane as it escapes to the atmosphere. Biofilters are attached to landfill gas vents and monitoring bores and also located over old fire hydrant sites. The science is simple but ingenious. Methanogenic bugs live in organic mulch matter that is kept damp. In the presence of methane, these bugs digest the methane and convert it to a less potent greenhouse gas.

Council is also required to supply to the EPA an annual statement on council's compliance with each requirement of the PAN.

It is expected that a PC PAN will remain in place until such time as there is no evidence of any landfill gas or leachate being generated by the site.

The requirements for the establishment of a new landfill are very onerous in relation to buffer zones and the engineering design of cells and capping.

There are no new landfill sites likely within the municipality and Warrnambool will need to rely on other sites either managed by other local governments or private companies.

Council will continue to carry out its responsibilities at the Braithwaite Street former landfill site as required by the EPA Post Closure Pollution Abatement Notice until such time as the site is deemed inert. There is an adjoining wetland which plays an important environmental role and should not be developed or used for grazing.

Education and Awareness Programs

The Warrnambool City Council currently develops and provides awareness and education material for the community via print, radio, posters, fridge magnets and other electronic media such as Council's website.

An annual recycling calendar is produced and typically focusses on improving recycling and decreasing contamination. The calendar has taken on different forms including the Sustainability Calendar, DL brochures, A5 cards with magnets for the fridge and a comprehensive resource recovery and waste disposal booklet.

Education and awareness programs are often delivered in partnership with community groups. Warrnambool Community Garden hosted the Dirty Weekend over a six-year period and continues to provide workshops educating the community about composting, worm farming and other waste reduction and recycling initiatives especially related to foodwaste.

The Plastic Free Alliance is another example where the council has worked with local environmental groups, including Fishcare South West and Friends of the Merri River Marine Sanctuary to run events and work with schools to raise awareness of the impact of single-use plastics on the marine environment.

The Sustainable Living Festival has been an integral component of the council's strategy to educate and inform the public about sustainability. In the past this event has attracted almost 3,000 participants, who can listen to inspirational speakers, learn hands-on skills at workshops, find out about sustainable businesses and products and gather information. The past two festivals have been waste free events, where a 'Wash Against Waste' trailer has provided reusable crockery, cups and cutlery and a system to wash and sterilise these so that the food vendors did not have to use throwaway items for their food.

The Sustainable Living Festival remains an option for educating the community about sustainability, waste minimisation and resource recovery.

The council will continue to engage in these opportunities to work with the local community and to provide support and promote groups working in this area.

Council has partnered with the Regional Waste Management Group and other South West councils on several projects and campaigns. This helps achieve economies of scale when running education messages through the media. It also ensures consistent messaging across councils. The role of the regional group is considered essential in this area.

Education has a critical role in the success of behaviour change initiatives (such as reducing contamination rates of kerbside collection, waste avoidance, service changes and litter reduction programs.) Education will be a key to ensuring the success of any changes to the kerbside collection service.

The council currently invests about \$30,000 annually waste education and awareness programs.

This budget also funds small infrastructure grants for schools and organisations for recycling and waste avoidance initiatives.

Resource recovery and waste education in schools is currently carried out through the Healthy Moves program. This program works with all primary schools, primarily to facilitate sustainable transport behaviours in students. The program provides excellent networking opportunities for waste minimisation initiatives in schools and has provided the council with an opportunity to promote and educate students about sustainability.

The 2017 Healthy Moves Workshop saw students developing plans for sustainable transport events at their schools, inspired by different methods of recycling promotion and creating art from recycling with the Trash Puppets.

Council provides support to secondary schools on an 'as needs basis.' Secondary schools education and engagement would benefit from a more strategic approach. Council could also review support of the AussiVic Resourcesmart State Government sustainability program in schools.

Council will review its current Waste and Litter Education Strategy and with the review of the strategy develop a program for implementation over the life of the plan.

Information and needs will also be fed into the regional education strategy, partnering in regional campaigns to gain cooperative benefits.

Education and awareness campaigns can be for the provision of basic information or for specific and targeted campaigns. Sustainability Victoria provided funding in 2016 to devise a project to work with the international worker audience in Warrnambool to improve resource recovery.

The project involved developing communication material in different languages and facilitating a focus group where the participants were interviewed about the waste management systems in operation in their home countries.

This provided valuable information for working with this group and valuable learnings about not making assumptions about any audience. This project is ongoing with the next step to involve developing a video in different languages about the kerbside collection and posting this on relevant social media platforms.

Data will be important in providing valuable information for the direction of the plan. Regular kerbside bin audits and public place bin audits will be undertaken to inform the plan.

The development and implementation plan will address specific campaigns and the most appropriate method of delivering these. The plan will also allow for flexibility when grant opportunities arise in this area and provide a program for ongoing and regular education in some areas such as use of kerbside recycling and FOGO bins, should FOGO collections be permanently introduced following the trial.

Clothing recycling bin at
Flagstaff Hill Car Park.



Managing Other Waste Streams

Hard Waste or Bulky Items

Hard waste is the non-putrescible waste that is too large to fit into a garbage bin. Examples include furniture, household appliances, metals, old white goods, old tools and car parts.

Opportunity shops must be acknowledged for their part in receiving and recycling hard waste and clothing. Warrnambool boasts seven opportunity shops in its CBD and one in the industrial estate. There is also a swapping cooperative established at the Baptist Church in the CBD, which provides an outlet for the swapping of children's clothing, toys and equipment. Most of these outlets are associated with charities and the shops provide funding for the charity.

A major problem however that is not exclusive to Warrnambool is the dumping of items at these premises that cannot be resold. This creates an ongoing burden for these charities with a number facing disposal costs of around \$20,000 annually, which obviously reduces the profits provided to the charity. (See Appendix 4: Map of Opportunity Shops in Warrnambool's CBD)

WDEA have recently installed a number of clothing and toy bins across the City. This material is sold to Southern Cross Recyclers (SCR) who on-sell it to markets across the world.

Mattresses are accepted at most transfer stations for a fee. Some transfer stations recycle the mattress others are disposed of to landfill. Opportunity shops may also accept and even collect mattresses that are in good condition. Refer to the Directory and obtain advice from specific businesses for accurate costings and disposal outcomes.

Garage Sales form a robust and vibrant city-wide method for the recycling of hard waste and other household items.

On any given Saturday morning across the municipality there are 10-20+ garage sales occurring (usually more in spring and early summer). They provide a festive feel to a Saturday morning signified by posters and balloons on street corners. The local newspaper provides an excellent service in promoting these events and is a popular place for garage sale customers to use to plan their garage sale shopping route.

There has also been an increase the number of organisations running car boot sales in recent years. The Garage Sale Trail is a nation-wide initiative which was trialed in Warrnambool in 2015. It was not a successful event due to the already healthy local garage sale industry. However the council will support and promote these type of reuse events wherever possible and keep abreast of initiatives such as the Garage Sale Trail if relevant opportunities arise.

Social media is also responsible for an increase in hard waste recycling in the City and Facebook pages such as *Warrnambool Buy Swap Sell* are facilitating the diversion of a significant amount of material from landfill and also providing an income for sellers of items.

Council is also aware of Reuse or Tip shops operating in other municipalities. These facilities seem to work best when they are situated at a transfer station or landfill as the items can be assessed prior to disposal and any items identified as saleable can be recovered before reaching the disposal site. The Eaglehawk Eco-Centre is a successful business diverting much hard waste from landfill. However there are a number of unsustainable tip shops in operation that have become a burden on the local council's finances.

An interesting model is in operation at the Anglesea Landfill whereby community groups run the shop on a roster basis,

similar to the warehouse/supermarket barbecue model. This seems to work well in this community however it also requires a paid staff member and support from Council to ensure a sustainable business. This council is interested in exploring a sustainable model but lack of a site at a transfer station is another barrier to establishing this type of operation successfully. Council will investigate the Anglesea Transfer Station Resale Shed model and search for relevant and feasible opportunities.

The approach to hard waste management by councils varies considerably. The modern version of the hard waste service that many councils are moving to is a fee for service program. This is seen as more equitable as it does not distribute individual costs over the rate base.

Hard waste is disposed of illegally more prolifically in some areas of Warrnambool than others. In some neighbourhoods' parks and public open spaces' dumped household items accrue. Council removes these items on an ad-hoc basis but consideration could be given to a more sustainable and proactive approach to dealing with the problem.

Council will continue to support and promote Opportunity Shops and community reuse events wherever possible.

Council will keep abreast of initiatives such as the Garage Sale Trail and look for opportunities where this type of initiative may add value in the future.

Council will identify if there is a need to work with relevant stakeholders to develop a proactive approach to managing the habitual dumping of hard waste in specific neighbourhoods within the municipality.

A service conducted by a not for profit organisation or private sector business where reuse or recycling are the objectives is a preferred model.

Construction and Demolition Waste

The transfer stations in Warrnambool accept and manage most of the construction and demolition waste generated in Warrnambool, some of which is landfilled and some recycled. Some industries recycle waste materials generated through their own operations for reuse such as concrete.

Council operations invest a percentage of the savings made through recycling into further recycling innovations. An example of this is the sifting of material collected through road sweeping. The rubbish is sorted from the organic material which is mulched and used as fill. This has led to significant savings in landfill costs and better environmental outcomes. Council engineers are currently researching methods of recycling the material that is recovered during road rehabilitation projects. It is envisaged that this material will be reused in other pavement works in the future, reducing the amount of virgin material that is required for this work.

Council will continue to seek opportunities to recycle and recover construction and demolition materials where there are

environmental and financial benefits.

Litter and Illegal Dumping

Littering and illegal dumping is an issue of concern given the number of environmentally sensitive areas, waterways and the marine environment that is so significant to Warrnambool. Illegal dumping hot spots are often locations that are environmentally important.

Even the dumping of garden waste is an issue as weeds and invasive plants can spread and adversely impact native vegetation.

The introduction of a FOGO collection has the potential to help reduce this problem.

Careless littering ultimately ends up in the stormwater drainage system and without intervention will end up in watercourses and eventually the ocean.

Council treats littering and illegal dumping seriously and local laws officers investigate all complaints and information received.

Legal action has been taken in the past where offenders have been identified and prosecuted. The EPA act provides for significant penalties.

The community can assist council by reporting and where possible identifying offenders. Council will undertake training opportunities and trial strategies to deter illegal dumping.

Events such as "Clean Up Australia Day" help to highlight the issue, engender community ownership of natural areas and also assist with physically removing rubbish from these areas.

Council will continue to coordinate Clean Up Australia Day and encourage and support schools and community groups to get involved in clean ups throughout the year.



Rubbish recovered from Cannon Hill.

4. A Vision for the Future

Rethink, Reduce, Reuse

Avoiding waste generation in the first instance is the best way for the City of Warrnambool to reduce its environmental impact, adapt to climate change and future-proof ratepayers against the rising cost of landfill disposal.

Avoiding and reducing waste does not necessarily equate to a reduction in consumerism and overall economic growth.

Avoiding waste means being smart about purchases and being responsible consumers who consider some or all of the following:

- unnecessary packaging
- using reusable bags when shopping
- Shopping at a local market
- Grows some of their own food
- Keeps chickens
- Composts / worm farms
- Plans meals to avoid food waste
- Uses leftovers in other dishes
- Frequents retail outlets which focus on sustainability and buys gifts and products made from recycled materials
- Aims to live plastic-free
- Frequents opportunity shops

The Warrnambool Community Garden, Unpackaged, SWAPIT and Loop Studio are four local community organisations dedicated to the reduction and minimisation of waste. The community garden and HUB are living examples of projects which promote sustainable living.

The Garden runs workshops on many different topics related to sustainable lifestyles and welcomes members of the public to these events. At the Garden, the HUB and the new shelter exemplify sustainable building principles including orientation of the buildings, building materials and even a worm composting toilet on-site.

All organic material generated at the site is composted or fed to the numerous chickens and the chicken manure and compost are used on the gardens, contributing to the bountiful crops harvested from the individual and community plots.

Vegetables from the community plot are shared with the community during cooking lessons and community lunches.

The Community Garden also partners with other organisations to help reduce and avoid waste in the broader community.

Water authority, Wannon Water, collects food scraps from its offices which are composted at the Garden. Another initiative is live Christmas tree recycling. This is a free service where residents drop their trees off for free at the garden where they are chipped by Council and the mulch is then used at the garden.

Unpackaged runs every Friday afternoon from the Uniting Church located in Warrnambool's city centre. It is operated voluntarily on a roster basis. It was created so that food and other goods could be purchased collectively without unnecessary packaging.

Where possible items are bought in bulk, are Australian made or Fairtrade, organic and purchased locally. Members bring their own containers and purchase the bulk goods, which are weighed to determine price.

SWAPIT is a children's clothing exchange operated via the Baptist Church which now has over 200 members. SWAPIT uses a token system whereby parents can exchange clean clothes and children's furniture that their children may have outgrown for other items previously exchanged. SWAPIT is also run entirely by volunteers.

A local studio runs art classes and workshops for children and adults and aims to minimise and recycle all materials used in the studio. An objective of the business is also to use reuse materials as much as possible in the everyday operations of the business.

In terms of supporting local waste avoidance initiatives the opportunity and charity shops are important along with the new initiative in this section which is Warrnambool Buy Swap and Sell. This Facebook page works by a member simply posting an item that they wish to buy, swap or sell, communication occurs between interested parties and a price or swap is negotiated. Local opportunity shops have reported a reduction in items coming into their stores for resale since this Facebook page was created.

Council has an important role in this space in terms of educating the community about ways of avoiding waste and promoting waste avoidance initiatives and campaigns. Also partnering with organisations to run workshops and working with schools and businesses to educate and assist them to understand their role in this journey. The council also actively supports the Ban the Bag campaign and The Plastic Free Alliance; community groups working collaboratively to reduce the amount of single use plastics consumed and ending up in our waterways. A new project that the council is excited to facilitate is the development of a Boomerang Bag community (discussed later in this document).



Recycle

In 2017 the waste and recycling industry came under heavy media scrutiny. A number of problems were highlighted and governments moved quickly to address issues by developing guidelines for the management and storage of recyclable and waste materials.

The result of the media exposure revealed Australians were interested in how their recycling was processed. The global recycling market is in a continual state of change. An example of this is China, which has had an enormous appetite for our recyclable products, particularly plastics, but due to a new environmental policy in place in China they are accepting reduced volumes of recyclables. In order to keep recycling these materials Australia will need to find new, viable markets.

In 2016-2017, the Warrnambool community generated 5,877 tonnes of putrescible waste through kerbside collections. 3,900 tonnes of recycling was collected. This represents a 38% *Diversion Rate*.

The most recent kerbside audit was conducted in 2014; the charts below show the composition of the recycling and waste bins that were audited. These results also show that there is room for significant improvement in our existing two bin system.

Results of the 2014 audit found 17% contamination in Warrnambool's recycling bins. The audit also found that 22% of waste bins consisted of items that could be recycled. Almost half (46%) of the contents of the waste bin consisted of Food Organics and Garden Organics (FOGO) and only 32% of the waste bin contents consisted of unrecyclable residual waste – true landfill waste (material that cannot be recovered or recycled).

The 2014 audit showed that using the existing system the maximum potential diversion achievable is 53.8% - this would be achieved by reducing the contamination in the recycling bin and recovering the recyclables found in the waste bin. If a FOGO collection was introduced the total potential diversion from landfill increases to 80.4%. The audit results showed 7.2kg weekly household generation of waste and 4.9 kg weekly generation of recycling.

In comparison to other councils Warrnambool's diversion rate is average to low as councils who divert food organics and garden organics (FOGO) are able to divert a much higher amount of their total collected material. The number of councils with a FOGO collection is increasing.

Warrnambool is one of the last south west councils to introduce this service and if not introduced soon will be one of the last in Victoria, falling further behind on the diversion rate leader board. Introduction of a kerbside FOGO collection has the potential to improve Warrnambool's diversion rate to at least 65%, with a maximum potential diversion rate of over 80%.

Education will play a major role in developing the behaviour

change needed to improve the resource recovery of the existing system and enabling the success of a FOGO collection if it is introduced.

The community has a very important role to play in ensuring that a robust market is developed for recycled product. By reducing contamination in kerbside recycling bins and choosing products made from recycled material over (often cheaper) non-recycled imports, Australians will be helping to ensure their recycling ends up where it should.

Recycle - managing organics

In addition to their high prevalence in Warrnambool kerbside waste bins, putrescible organics make the most significant contribution to greenhouse gas emissions.

This is dealt with in greater detail in section 3.3 of this strategy under the heading of Reducing Greenhouse Gas.

Within the total volume of organics, garden organics represent a significant but variable component of the residual waste stream. The volume of garden organics naturally fluctuates seasonally, typically peaking in spring early summer and autumn.

Kitchen (food) organics make up approximately one-third of the residual waste stream. Decomposing food waste has much higher environmental and public health risks than garden waste. It generally requires different processing infrastructure to garden waste and different end products can be manufactured (compost as compared to mulch). There are a number of potential options for reducing organic waste to landfill.

Household level options such as worm farming and home composting are excellent as they reduce the total amount of waste collected and disposed of by more expensive options.

However, a significant number of residents do not use any of the home based options, this is evidenced by the bin audits. Private garden waste services operate in the municipality and have assisted in reducing the volume of garden waste going to landfill.

Large scale reductions in food and garden waste (FOGO) going to landfill are generally achieved by providing an additional collection service (food and garden organics combined in a separate bin) and using a specialised treatment facility. These facilities are currently operating in the south west region. It is usual that moisture, temperature and oxygen levels are monitored and controlled. In-vessel systems exist where the process is more controlled and the end product of a higher quality. It is very important that all pathogens are eliminated and the final product meets specified standards. In-vessel systems are also noted for better greenhouse gas emission reduction than windrow processing.

There are many potential uses for the end product with large scale farm use in this region an obvious use. It can improve soil quality while storing carbon.



Kitchen caddy for collecting kitchen organics.

The cost for collecting and local processing of FOGO is expected to be considerably cheaper than disposal at landfill due to the high levy.

To enable a cost effective service to be offered it is acknowledged that a mandatory service would be necessary. Some exemptions may be justified such as high rise residential units where a joint service for kitchen organics may be necessary.

Experience in other municipalities providing a FOGO service is that the provision of a kitchen caddy and compostable liners resulted in more kitchen organics being added to the caddy. Source: Best bin systems 2012, NSW EPA

Like many other initiatives in this strategy, the process of removing organics from landfill will also help to encourage a further sense of pride and confidence that Warrnambool as a regional city is tackling important environmental issues. A FOGO collection would also potentially assist with reducing the illegal dumping of green waste, including the dumping of lawn clippings in public spaces or over back fences.

State and Federal Government policy direction suggests that it is only a matter of time before all Councils introduce an organics collection service.

Currently, 49 Victorian councils provide a green waste service. In the past five years the number of councils offering a full FOGO service has grown from 3 to 13. This number is predicted to increase as a number of councils are currently researching the feasibility of FOGO as an option to improve diversion from landfill and to help reach greenhouse gas emission targets.

The service proposed would consist of a green lidded 240 litre mobile bin to be collected fortnightly on the opposite week to the recycling bin, a kitchen caddy and compostable bin liners. Accepted in the FOGO bin would be green waste including small branches and food waste and food scraps. Dairy and meat would also be included.

The frequency of collection while initially fortnightly would be monitored and could revert to weekly with garbage being

collected fortnightly. This would require a comprehensive review and would be influenced by a number of factors.

Funding for a FOGO trial is included in the 2017-2018 Council budget. The trial will occur in the following autumn and will provide invaluable information regarding:

- volumes of FOGO generated, bin, kitchen caddy and bin liner specifications
- logistics including consolidation site and transport to processing facility
- education successes and key considerations
- community acceptance and engagement
- organics processing options.

Recycle and Disposal - Next Practice Kerbside Collection



A bin with a green lid will be used for the organics collections

The introduction of a FOGO kerbside collection would mean a three bin household kerbside collection. Initially FOGO would be collected on the alternative fortnight to recycling (see section 8.5). Depending on the successes or otherwise of a FOGO collection options should remain open to make FOGO weekly with residual garbage a fortnightly service.

Council is concerned with the wind blown litter caused by overflowing garbage bins and bins blowing over during extreme weather events. Council will explore devices designed to keep bin lids closed until they are tipped upside down (by the hydraulic truck arm). Such devices are currently available on the market.

Council will need to decide if it will promote the use of one of these devices, a number of alternative devices or purchase them in bulk and sell them to the community or purchase them outright and pass the cost onto residents through the Waste Management Fee.

During the 2014 audit 22% of waste and 21.5% of recycling



Truck set up to collect waste and organics.

bins assessed were full to overflowing. There are also benefits in standardising bin sizes and lid colours with other south west municipalities. These changes would assist to meet best practice kerbside collection, Australian standards and in reducing the litter escaping from overfull bins.

Consideration will be given to offer residents the option of upsizing to a 120 litre garbage MGB. This may assist in addressing the issue of residents overfilling their bins. Source Best bin systems 2012, NSW EPA.

The option of 360 litre recycling bins for larger households should also be explored in the next contract. The cost of these bins would be recouped through an increase in the Waste Management Fee for households opting for this size recycling bin.

The use of split system collection vehicles will be explored during the tender process which would mean only one vehicle movement past a property. However any dis-benefits around residents' perceptions of this service should be closely analysed and taken into consideration prior to its implementation. Use of this type of truck may require an extensive communication campaign to preserve the community's trust in the process of recycling. Radio Frequency Identification Device (RFID) tagging is a highly desirable innovation for Warrnambool's new kerbside collection bins. RFID tagging is becoming a standard feature in MGBs and the council would primarily use the technology for identification purposes and as a method of reducing the high number of lost and stolen bins. The tagging can also be used for other purposes such as detecting contamination in recycling bins and ultimately weighing bins.

User-friendly global positioning systems (GPS) for garbage and recycling collection trucks is generally standard equipment in a modern truck. This information can be used to resolve disputes and allow for proactive troubleshooting. Cameras and video equipment is also becoming standard issue in modern trucks. This again would provide information for troubleshooting and assists with identifying educational needs.

Multi-unit dwellings or high density living is increasing in Warrnambool therefore the kerbside collection must adapt to this change and provide flexible options for these types of developments. Many of these higher density developments can be problematic to provide efficient waste services,

as roads do not have sufficient width and turning room for garbage trucks to enter and manoeuvre.

Council will require developers to carefully consider in the design phase the layout of the development and access roads to provide suitable locations for bins or in some instances skips. This will assist with reducing the number of bins being placed on the roadside, which can create safety, health and amenity issues such as blown litter.

Permit conditions requiring a Waste Management Plan, will be included in planning and subdivision permits, for higher density, multi-unit developments and subdivisions generally. This will require approval prior to the commencement of the development and the permit being issued. Council will reserve the right to not collect from a development where waste management has not been adequately catered for.

Warrnambool has had in place a night time collection for over 30 years which is met with majority community acceptance. Council believes that the benefits of this arrangement are increased safety, efficiency of collection and improved amenity. The collection trucks are able to undertake their work without having to negotiate vehicle traffic, pedestrians and cyclists.

This provides a safer and more efficient collection run. There are also 14 schools across Warrnambool with numerous school crossings. It is of benefit to the Warrnambool community for students to be travelling to school without garbage trucks on residential streets. There have been a number of accidents involving pedestrians, cyclists and garbage trucks in other municipalities.

Recover - New Technologies

Waste management and resource recovery activities are being impacted by technological advances which are providing greater efficiencies and will ultimately change many of the current practices.

As Smart Cities thinking becomes more normalised, the use of smart technology in our bins and trucks could revolutionise waste minimisation and recycling in Warrnambool.

Collection systems are now using smart chip technology embedded in kerbside bins which can contain information about the bin ownership and service entitlement.

Systems also exist that provide for a truck's bin lifting arm to weigh the material being collected which along with chip technology enables a pay by weight system. Improved and innovative information technology is assisting record management and information flow and storage. Advances in truck design are enabling larger transfer volumes to be moved longer distances to disposal at material sorting sites. Moving floor and compaction design will improve transport efficiency.

Improved technology in recyclable material sorting facilities is enabling a greater range of materials to be sorted and improving the viability of recycling the material. Reuse options

such as using polystyrene in lightweight concrete, pavers and surf board manufacture have been assisted by technological innovations.

Landfill operations are also impacted where the use of improved cell liners and the capture and conversion of gas to electricity are examples. Landfill gas and leachate monitoring systems are becoming more sophisticated and a requirement in operating recently closed licenced landfills.

Investigations and trials are being undertaken on a number of waste to energy technologies which if successful could be used on an individual industry application or by communities where appropriate. Waste to energy is prevalent in some areas of the world and is already in operation in some industries in Australia.

In the past there were some difficulties in Australia with establishing waste to energy solutions using municipal waste. These included a lack of significant drivers (landfill levy is too low, European Union landfill levies are significantly higher and their policy and legislation around landfill bans and waste reduction are significantly stronger).

New technology means that smaller volumes of waste are required to make waste to energy projects financially viable. Preliminary advice provided to Council is that the volumes of waste produced locally may be suitable for energy generation and that modern systems are better able to deal with the unpredictability and seasonal variation of municipal waste composition.

In this rapidly changing area waste is now a commodity and a waste to energy project is an option that should be investigated by Council.

The waste hierarchy must also be considered. If recycling and reuse are higher ends than recovery then once all of the recyclables and organics are removed from the municipal waste, in an ideal world, there would not be much residual waste left.

There is also research being undertaken to develop "in vessel" technology for the processing of mixed organics, both domestic and commercial into a valuable compost resource.

To date a heavy reliance has been placed on open windrow processes where temperatures oxygen levels and hence consistent end product quality is challenging. Council will seek out and support new technologies and innovation in the field of waste management that provide sustainable outcomes.

Opportunities for Regional Cooperation and Economies of Scale

A number of opportunities exist for improved regional cooperation resulting in consistent standards, policies and education across the region as well as opportunities for financial benefits arising from economies of scale. The state and regional plans and the council plan all highlight

joint procurement as a high priority where it makes sense.

Council's membership of the Barwon South West Waste and Resource Recovery Group facilitates such opportunities.

Community education is a critical ingredient in resource recovery and waste management. Newspaper and television exposure across the region is more cost effective when undertaken on a regional basis.

It is valuable to have common standards such as kerbside bin sizes, lid colours and acceptable deposited material standards.

Joint procurement of products such as bins, kitchen waste caddies and liners also offers potential savings from economies of scale.

The joint tendering of service provision such as kerbside collection, landfill provision, recyclables sorting and purchase and organics processing are potential areas for regional co-operation. Purchasing of radio and/or television air time for education and program marketing is also an area suitable for joint procurement initiatives.

The council has participated in preliminary discussions with Corangamite and Moyne Shires in relation to joint procurement options.

There are many challenges particularly in relation to timing of existing individual council contracts and the structure of the regional cooperation model.

Council will continue to explore opportunities for regional cooperation and the realising of financial and social advantages through economies of scale.

Rethink Plastic Bag Use Reduction or Plastic Bag-Free

Warrnambool is surrounded by waterways and within its boundaries are situated a Southern Right Whale nursery, the Merri Marine Sanctuary and Middle Island, an important breeding site for Little Penguins. There have been many documented instances of the deadly impact of plastic bags on marine life. The Council therefore strongly supports the reduction in the use of plastic bags in the Warrnambool community. Plastic bags are also a contaminant in both kerbside recycling and organics collection bins. Plastic bags take many years to break down in the waste stream and in the environment.

Warrnambool becoming plastic bag-free has become a more attainable goal for the City with two large supermarket chains committing to phase out single use plastic bags over a twelve month period. A Boomerang Bag community has also recently been established in Warrnambool.

Smaller communities such as Port Fairy and Timboon, have successfully gone plastic bag-free where it has been community driven, supported by smaller independent retailers

and where other options have been provided and even designed by local schools or community groups.

The South Australian government introduced a plastic bag ban in 2009. Research undertaken about the ban showed that South Australians were highly supportive of the bag ban as it showed South Australia as a leader in environmental issues. More than half of the survey respondents were completely



supportive of the plastic bag ban.

The ACT, Northern Territory and Tasmania have since also introduced bans on single use plastic bags, with Queensland and Western Australia to ban bags in 2018. The Victorian Government has announced it intends to ban single use plastic bags.

Many retailers now provide options such as the supply of recyclable paper carry bags, cardboard boxes or charge a fee for the supply of plastic bags.

Some supermarkets provide an on-site bin for the recycling of plastic bags and one will also take other soft plastics including biscuit packets, bread bags, confectionery packets, rice and pasta bags, produce bags, frozen food bags and old re-usable bags. These soft plastics are currently not acceptable in the kerbside recycling collection service.

Council will continue to strongly support the reduction in plastic bag use and encourage the City's retailers to implement more environmentally friendly reusable or recyclable shopping bag options. It will lobby state and federal governments about the issue.

Council will also support any community driven initiatives to reduce plastic bag use and raise awareness about the issue. The Boomerang Bag initiative will be explored and supported as a grass roots initiative to empower community groups and provide a practical alternative to single use plastic bags.

Treat and Dispose - Landfill Bans

The Victorian Government has committed to banning e-Waste

from landfill in Victoria. The preferred approach will be in place in early 2018, which will be fine-tuned as necessary.

Other landfill bans are also a possibility in the future as an added legislative measure to reduce waste to landfill and to keep undesirable or valuable materials out of landfill. Bans are also used as a mechanism to drive markets for example in areas of the United States and Europe organics is banned from landfill to drive the waste to energy industry. Organics are also seen as a valuable fuel source for renewable energy in some countries.

There is no adopted standard for the right level of investment in education and awareness programs. The council currently spends in the order of \$30,000 annually.

This budget also funds small infrastructure grants for schools and organisations where standardised infrastructure and signage are seen as key to successful recycling and waste avoidance initiatives.

Resource recovery and waste education in schools is currently carried out through the Healthy Moves program. This program works with all primary schools to primarily facilitate sustainable transport behaviours in students. The program provides excellent networking opportunities for waste minimisation initiatives in schools and has provided the council with an opportunity to promote and educate students about sustainability using a holistic approach.

The 2017 Healthy Moves Workshop saw students developing plans for sustainable transport events at their schools, inspired by different methods of recycling promotion and creating art from recycling with the Trash Puppets.

Council provides support to secondary schools currently on an 'as needs basis.' Secondary schools education and engagement would benefit from a more strategic approach. Council must also explore if supporting the AussieVic Resourcesmart State Government sustainability program in schools is the best use of the council resources in working in this sector.

Council will review its current Waste and Litter Education Strategy and with the review of the strategy develop a program for implementation over the life of the plan.

Information and needs will also be fed into the regional education strategy, partnering in regional campaigns to gain cooperative benefits.



Trash puppets

Education and awareness campaigns can be for the provision of basic information or for specific and targeted campaigns. It is recognised that different matters will likely require different styles of campaigns to be the most effective and different audiences will require different approaches and mediums for communication. Sustainability Victoria provided funding in 2016 to devise a project to work with the international worker audience in Warrnambool to improve resource recovery.

The project involved developing communication material in different languages and facilitating a focus group where the participants were interviewed about the waste management systems in operation in their home countries. This provided valuable information for working with this group and valuable learnings about not making assumptions about

an audience. This project is ongoing. The next step will involve developing a video in specific languages about the kerbside collection and posting this on relevant social media platforms.

Data will be important in providing valuable information for the direction of the plan. Regular kerbside bin audits and public place bin audits will be undertaken to inform the plan.

The development and implementation plan will address specific campaigns and the most appropriate method of delivering these. The plan will also allow for flexibility when grant opportunities arise in this area and provide a program for ongoing and regular education in some areas such as use of kerbside recycling and FOGO bins (should FOGO collections be permanently introduced following the trial).

Container Deposit Legislation

Container deposit legislation (CDL) is a policy decision for the States and Territories. South Australia, the Northern Territory and Queensland have legislated to introduce a mandatory deposit and refund system for beverage containers, with other states including NSW and Western Australia seeking to take similar approaches.

A container deposit scheme involves a consumer paying a deposit on a beverage container at the time of purchase and later redeeming the deposit from a beverage container collector by surrendering the container when it is empty.

A study conducted in 2012 found that the volume of materials in kerbside recycling decreased by 17% with a CDS. It also found that in Victoria, local government as a whole (based on current arrangements) would lose revenue from recyclables of \$285,500 per year in the short term and up to \$842,500 per year in the long term, with well over \$10 million lost over a 20-year timeframe. Source: Financial Impacts of Container Deposit Legislation to Local Government in Victoria, November 2012, Equilibrium.

At this stage the Victorian Government has given no indication that it proposes to introduce similar legislation.

Proponents argue CDL would reduce litter while opponents say local government's kerbside recycling service, along with public place recycling initiatives, are working well and would be adversely affected if CDL were introduced.

If more valuable recyclable materials (glass, aluminium and steel) were removed from the kerbside collection stream the system could become uneconomic.

It is estimated that in Australia the overall beverage container recovery rate is about 62%.

Council will continue to monitor the deposit legislation debate while encouraging greater participation in public place and kerbside recycling. This will include contributing to research

efforts of the regional group and state governments to quantify the impact of CDL on kerbside recycling and litter reduction.

Product Stewardship

The *Australian Packaging Covenant* (APC) is a sustainable packaging initiative which aims to change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter.

The APC is an agreement between government and industry to find solutions to address sustainability issues. Through the APC, industry agrees to take a leading role in managing the impact of its packaging. Organisations sign the Covenant to signal their commitment. An example of the APC's endeavours is a current collaboration to reduce coffee cup impact.

The aim of this project is to improve recyclability of multi-material products such as disposable coffee cups.

Whilst the intent of the APC is excellent, it is voluntary for many manufacturers to sign up. It is also unlikely that many manufacturers will change without a harder line approach (eg: legislation) if the company's bottom line may be affected.

Council believes that product stewardship should be mandatory across a much broader range of products.

MobileMuster and Cartridges for Planet Ark are examples of successful programs where recycling of the product is paid for at the point of purchase.

Fluorocycle is also a great initiative, aiming to facilitate companies to take responsibility for products that are part of their business model and profit. Paying for recycling when disposing of a product however still allows for the consumer to make a choice – To pay or not to pay? – To recycle or not to recycle?

Paying for recycling at the point of purchase alleviates any need for the consumer or business to put the bottom line before the preferred environmental outcome.



5. Measuring Performance

There are a number of criteria to consider when measuring the performance of Warrnambool in relation to waste and resource recovery.

Waste minimisation

Measured by:

- Annual waste generation comparison measured in kilograms generated per tenement.
- Adoption of campaigns such as 'Ban the Bag', Boomerang Bags.

Resource recovery – this is currently captured for Council's kerbside collection through Diversion Rate. Sustainability Victoria (SV) and the EPA require mandatory local government reporting about waste management services and data on the amount of material that is diverted from landfill - Diversion Rate. It is calculated by adding together the total tonnage of material collected through the kerbside collection of each council, then dividing it by the amount of material that is recovered or diverted from landfill. SV publish an annual report comparing local government diversion rates across the state. Warrnambool's current diversion rate is 39%.

Measured by:

- Comparison of annual WCC Diversion Rate against similar
- Council's averages and all councils' averages – LGRF.
- Comparison against other councils.

Presence of litter in the City and the community's perception of this.

Measured by:

- Number of customer complaints re litter in parks, open spaces, illegal dumping.
- Number of litter fines issued in a given timeframe.
- Use of VLAA litter tool in litter hotspots before and after any litter campaigns.

Contractor's internal performance

Measured by:

- Audits of internal processes.

Number of complaints.

Reduction in greenhouse gas emissions.

Measured by:

- Waste to landfill figures.
- Improvements in technology and fuel usage of collection and transport vehicles.
- Reduction in transport kilometres due to improvements in collection scheduling and joint procurement.
- Increase in number of biofilters processing landfill gas from 2017 levels.

Number of people visiting the waste page on council's website

Measured by:

- Number of webpage hits

Increase in number of public place recycling bins.

Measured by:

- Increase from 2017 levels.
- Capturing public place recycling material data.

Contamination in kerbside bins

Measured by:

- Kerbside bin audits.

Residents' satisfaction with the kerbside collection service

Measured by:

- Annual independent community satisfaction surveys conducted for all Victorian councils.

The telephone surveys measure community views about their council's performance in a number of areas including waste management and environmental sustainability. Respondents are also asked how they rate these issues in importance against other services provided by councils. The survey is conducted by the Department of Environment, Land, Water and Planning. Local residents and ratepayers in each municipality over 18 years of age are selected at random.

Findings are compared against those of similar councils and state-wide averages.

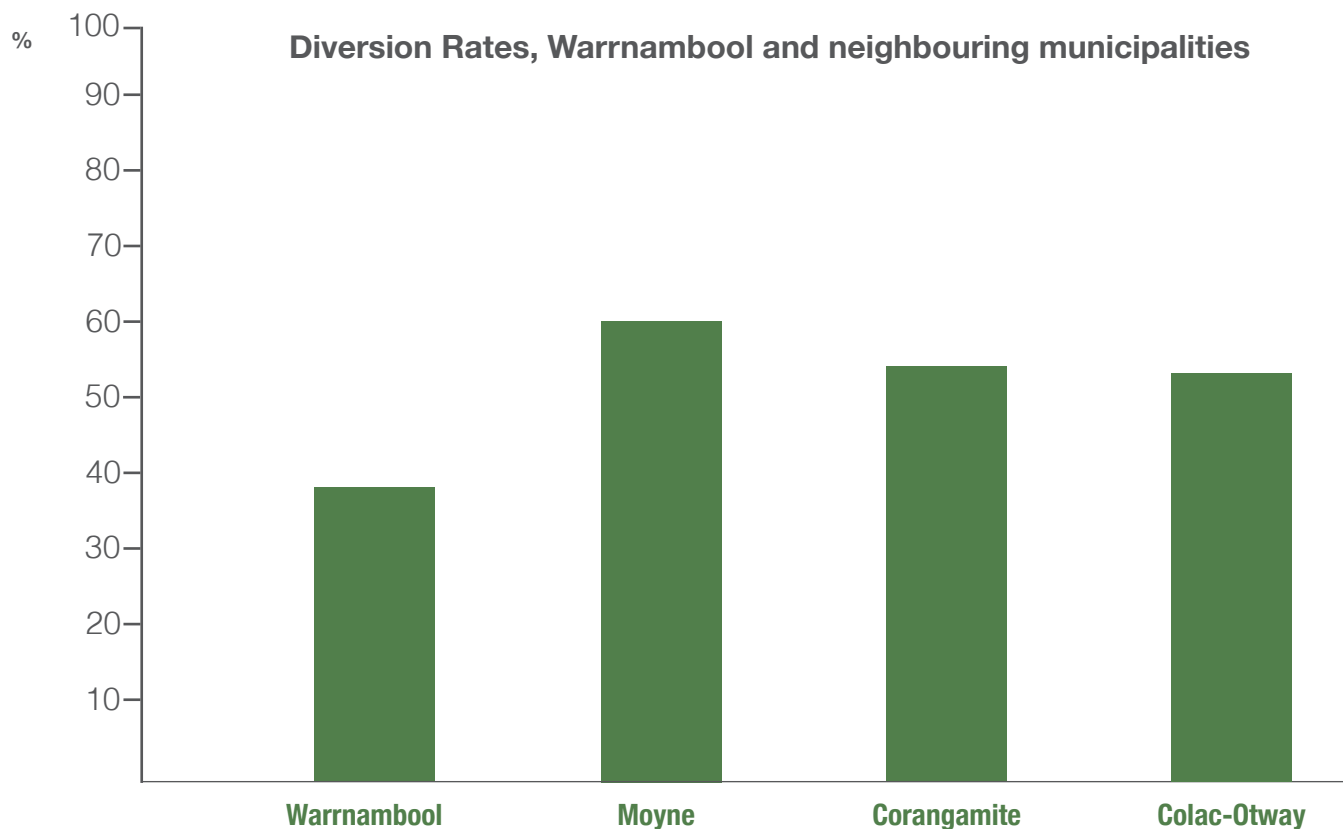
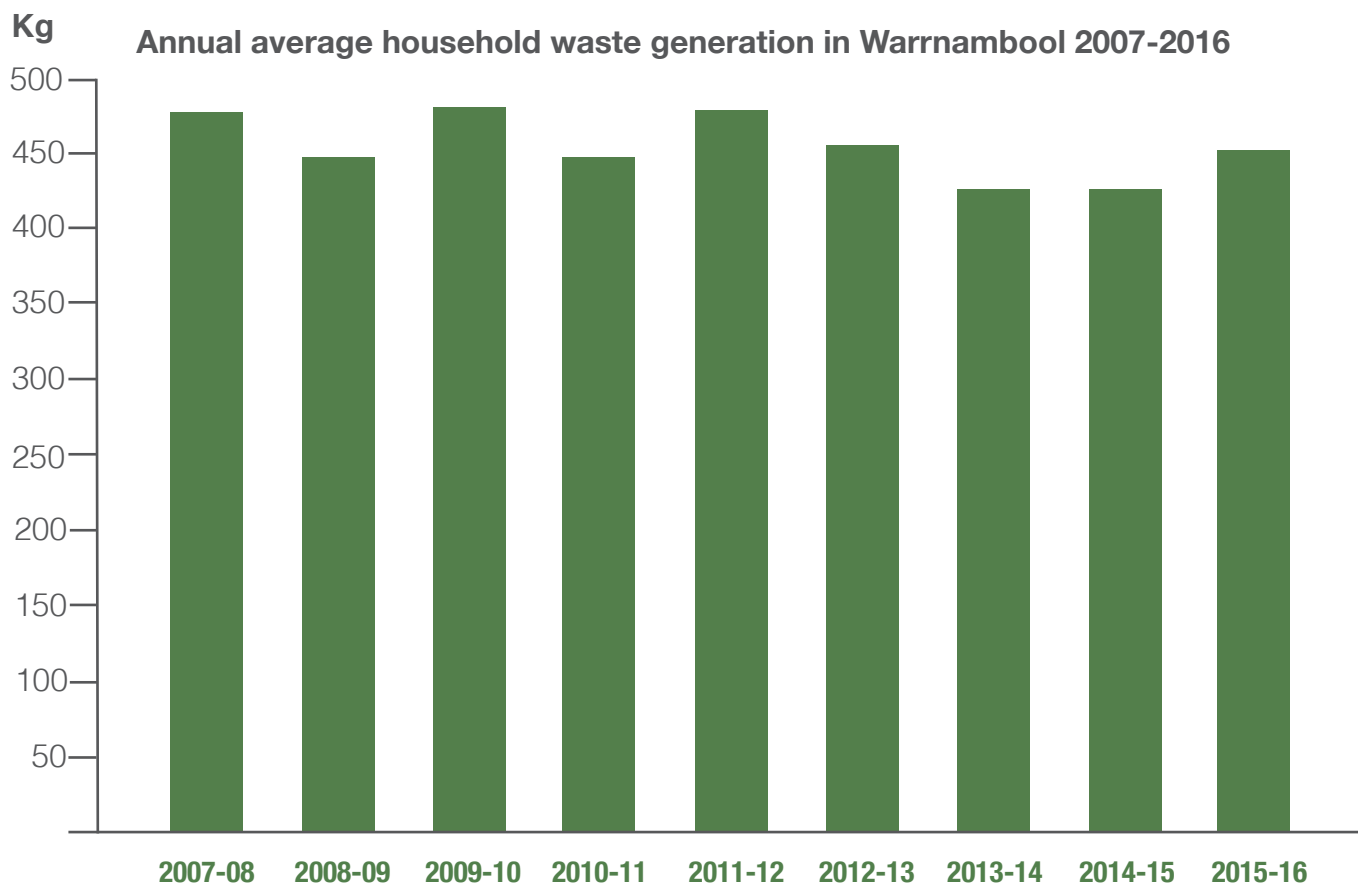
Waste management consistently appears in Warrnambool's results as a top priority area of importance. Warrnambool's 2016 performance index score was 70, down from 74 in 2015.

This compares to average regional centres' satisfaction level of 69 and an average state-wide satisfaction score of 70.

Performance against the criteria listed in this section will be reported annually to Council.



Above: Warrnambool Clean Up Australia Day volunteers.



Comparison of diversion rate between neighbouring councils. These councils offer a three bin system, with the third bin collecting FOGO (food organics, garden organics). Diversion Rates are: Warrnambool 39%, Moyne 61%, Corangamite 55% and Colac Otway 54%.

Source: Victorian Local Government Annual Waste Services Report 2012-2015 published by Sustainability Victoria

Appendix 1
2016-2017 recycling
collection calendar.
Available as a flyer.

2016-2017 RECYCLING COLLECTION SERVICE

✓ RECYCLE THESE ITEMS

PAPER

CARDBOARD

GLASS BOTTLES & JARS

ALUMINUM, STEEL CANS AND TRAYS

CARTONS

PLASTIC CONTAINERS & LIDS

✗ NOT ACCEPTED IN RECYCLING

- NO nappies
- NO plastic bags, plastic wrap or recycling in plastic bags
- NO polystyrene
- NO pyrex, crockery or metal cutlery
- NO hazardous waste, chemicals, liquids, oils or hot ashes
- NO door mats, clothing, shoes, toys, vinyl or fabric
- NO rubbish
- NO garden waste
- NO food scraps or compost
- NO medical waste or syringes
- NO building or renovation waste

✗ NOT ACCEPTED IN RECYCLING

Plastic that can be easily torn or crumpled e.g. plastic wrap, shopping bags, lolly, cereal and bread bags **CANNOT** be recycled in your recycling bin – even if it has a recycling symbol. These soft plastics can be taken to CoB & Co, Coles and Woolworths for recycling.

GET IT RIGHT ON BIN NIGHT

www.getitrightonbinnight.vic.gov.au

WARRNAMBOOL CITY COUNCIL

2016-2017 RECYCLING COLLECTION CALENDAR

SEPTEMBER 2016						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

OCTOBER 2016						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER 2016						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER 2016						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JANUARY 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MARCH 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE 2017						
S	M	T	W	T	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JULY 2017						
S	M	T	W	T	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

OCTOBER 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Bins must be out by 9:30pm the night before collection

Make sure bin lids are fully closed. Place bins away from parked cars, trees and poles!

If you live in a **blue** area check the Calendar overleaf and put your Recycling bin out on the week shaded blue.

Residents living in a **green** area place your Recycling bin out on week shaded green on the Calendar.

Place your Garbage bin out weekly.

WARRNAMBOOL CITY COUNCIL

2016-2017 RECYCLING COLLECTION MAP

Enquiries:
Call Wheelie Waste 1800 999 690

www.warrnambool.vic.gov.au

Connect to Council

Appendix 2

Public place recycling bin locations in the Warrnambool municipality.

Public place recycling bin locations

Harris St Recreation Reserve
 Brierly Recreation Reserve
 Central Business District - 13 bins
 Surf Club deck
 Lake Pertobe Kiosk
 McGennan's Car Park
 Lake Pertobe - eight bins
 Breakwater/Pavilion precinct
 Flume car park
 Point Ritchie/Moyjil car park
 Logan's Beach car park
 Bluehole car park
 Simpson Street boat ramp
 Toohey's Estate playground
 Swan Reserve playground
 KFC car park
 Botanic Gardens
 AquaZone
 Warrnambool Stadium and netball courts
 Dennington Recreation Reserve
 Davidson Oval
 Merrivale Recreation Reserve
 Friendly's Society Recreation Reserve
 Reid Oval
 Mack Oval
 Walter Oval
 Pony Club
 Jones Oval
 North Warrnambool Recreation Reserve
 Allansford Recreation Reserve
 Jubilee Park, Allansford
 Payne Reserve
 Jetty Flat and the BMX track

Council and other facilities

Matron Swinton Childcare Centre
 Warrnambool Yacht Club
 Florence Collins Childcare Centre
 Warrnambool Art Gallery
 Archie Graham Community Centre
 Surfside and Shipwreck Bay Holiday Parks
 Sherwood Park Childcare Centre
 Kings College
 Hockey field
 Sage Hill
 AquaZone
 St Joseph's Primary School
 New Life Church After School Care
 St Pius Primary School
 South-West Victorian Livestock Exchange
 Council Depot
 Merrivale Primary School
 West Warrnambool Primary School
 Dennington Kindergarten
 South Warrnambool Kindergarten
 Warrnambool Airport

Appendix 3: Warrnambool recycling and disposal services - available as a booklet.

Material	Service Provider	Fee	Where material is recycled (if known)
Asbestos	Andrew's Asbestos Solutions 5562 2496	Fees Apply Asbestos is a potential hazardous material, and should only be removed by a licensed asbestos removalist.	Disposal at a landfill licensed by the EPA to receive asbestos as per EPA regulations.
	Murrihy Demolition 0438 584 346		
	Western District Asbestos Removers 5562 2783		
Batteries	Detox Your Home permanent site at Statewide Recycling 355 Koroit St 5561 1195	FREE for domestic quantities. A fee applies for commercial disposal.	Funded by Sustainability Victoria. Collected by Toxfree, recycled or diverted from landfill.
	Battery World 25 Walsh Rd 5560 5245	Fee may apply	Lead batteries are recycled by Australian Scrap Battery Collection. Lead & non-lead batteries recycled by accredited recyclers.
	W'bool Transfer Station 20 Harrington Rd 5561 1198	FREE	Will recycle ALL batteries.
	Statewide Recycling 355 Koroit St 5561 1195	FREE	Car, truck and household batteries.
	Eccles 6 Watson St 5562 3227	Will pay dependent upon market prices for drop off.	All batteries, except for household.
	Rentsch's Metal Recyclers Cnr Braithwaite St & Harrington Rd 5562 7802	FREE	Car and truck batteries ONLY.
	Aldi Supermarket 251-257 Lava St	FREE Sorted into chemical types & returned to recycling plants extracting materials for reuse.	Household batteries inc: AA, AAA, C, D or 9V batteries (rechargeable & non-rechargeable) Batteries are sorted into chemical types and returned to recycling plants to extract materials for reuse.
	WDEA 11 Albert St 5564 5200 Open 8am-4pm, Monday to Friday	FREE	Car and truck batteries.
	Westvic Waste 3 Hammond Pl 5561 3133	FREE	Car, truck and household batteries.
Books & Magazines	Cob & Co 25 Dickson St 5561 0881	FREE	Car, motorbike and boat batteries.
	Lifeline 719 Raglan Pde 5559 0505	FREE	Resold at Easter Book Fair.
Bric-A-Brac	Lifeline 719 Raglan Pde 5559 0505	FREE	Resold
CDs/ DVDs	Lifeline 719 Raglan Pde 5559 0505	FREE	Resold. Also takes computer games.
	Cob & Co Recyclers 25 Dickson St 5561 0881	Fees may apply	

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CFLs (compact fluorescent light globes/ lamps)	Detox Your Home permanent site at Statewide Recycling 355 Koroit St 5561 1195	FREE for domestic quantities. A fee applies for businesses.	Funded by Sustainability Victoria. Collected by Toxfree.
Chemicals Agvet (ChemClear)	Register at- www.chemclear.com.au or call 1800 008 182	FREE collection. Registration essential.	National program for the collection & disposal of unwanted registered agvet chemicals.
Chemicals (household) 'Detox Your Home'	Warrnambool Saleyards Caramut Rd Sat March 4th, 2017 8am-4pm	FREE- Only containers up to 20 litres accepted.	Detox Your Home is a Sustainability Victoria program. For more info visit: sustainability.vic.gov.au/detox-yourhome or call 1300 363 744
Christmas Trees	Warrnambool Community Garden Cnr Grieve St & Grafton Rd	FREE- Supported by Warrnambool Community Garden & WCC	Used for mulch. January, 2018
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	Used for mulch
Clean-fill (bricks, soil, concrete, rubble)	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Hardfill
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	Hardfill
	Westvic Waste 3 Hammond Pl 5561 3133	Fees apply	Material processed and crushed.
Clothing (good condition Inc: Shoes, handbags, Linen & curtains)	SWAP IT Warrnambool Baptist Church 207 Koroit St 5561 1066	FREE- Swap kids clothes and toys. Works on a token system. See op shop flyer.	Reused- Open Thursday mornings from 9.15am-12. Adjacent to the church lane. Closed during school holidays.
	Good condition take to Charity shops for assessment	FREE	Resold
Clothing (any condition)	WDEA 11 Albert St 5564 5200	FREE- Recycle banks around town.	Sorted for reuse, cut for rags, or recycled.
	Lifeline 719 Raglan Pde 5559 0505	FREE	Resold for cut rags.
Craft Supplies & Stationery	Lifeline 719 Raglan Pde 5559 0505	FREE	Resold
drumMUSTER Agvet Chemical Containers (empty, cleaned, non-returnable metal and plastic agvet chemical containers)	Cob and Co Recyclers 25 Dickson St 5561 0881 admin@cobandco.com.au	FREE drop off. Containers must be clean with lids off. This site has collected 34,590 drums since inception.	National product stewardship program for collection and recycling of empty, cleaned, non- returnable metal and plastic agvet chemical containers.
Electrical Goods- Working order	Lifeline 719 Raglan Pde 5559 0505	FREE	
E-WASTE (Electronic Waste)	WDEA Enterprises 11 Albert St 5564 5200 Open 8am-4pm, Monday to Friday	FREE- Accepts Whitegoods & can collect. Includes- TVs, computers & any item that plugs into a computer eg: printers	Offers meaningful opportunities for people with a disability. Provides a supported environment for developing skills & work experience.



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Fire Extinguisher Commercial (Expired)

Call CFA Warrnambool-
Fire Equipment- Maintenance
5559 2500
1300 363 661

Fluorescent Tubes

Statewide Recycling
355 Koroit St
5561 1195
FREE for domestic.
Fee applies for businesses
Detox Your Home permanent site.

Food Waste

Statewide
5561 1195
Fees may apply
Ideal for businesses in the food industry.

Warrnambool TS 5561 1198
Fees apply

Furniture

(Good condition)

Ring Opportunity shops.
See op shop flyer for details.
Resold

Gas bottles

(Old gas bottles that aren't
part of the gas bottle swap,
including LPG, BOC & CIG)

WDEA
11 Albert St
5564 5200
8am-4pm, Mon-Fri
FREE
All 9kg or 4kg LPG bottles for safe recycling.

Elgas
8/10 Dickson St
1300 652 003
FREE
Elgas- All 9kg or 4kg LPG bottles for safe recycling.

Surdex Steel
Whiterock Rd
5561 7888
FREE
ONLY BOC or CIG gas bottles for safe recycling.

Glass

Warrnambool Transfer Station
20 Harrington Road
5561 1198
Fees apply
VISY/ SKM

Statewide Recycling
355 Koroit St
5561 1195
Fees apply

Westvic Waste
3 Hammond Pl
5561 3133
Fees apply

Green waste

Warrnambool Greenwaste
0409 389 943
0448 062 359
Fees apply
Mulched

Statewide Recycling
355 Koroit St
5561 1195
Fees apply
Organic mulch/ Panmure compost facility.

Westvic Waste
3 Hammond Pl
5561 3133
Fees apply

Warrnambool Transfer Station
20 Harrington Rd
5561 1198
Fees apply
Mulched and resold

Mattresses

Statewide Recycling
355 Koroit St
5561 1195
Fees apply
Landfill

Op shops
See op shop flyer for details.
Resold- Must be unmarked.

Warrnambool Transfer Station
20 Harrington Rd
5561 1198
Fees apply
Recycled

Westvic Waste
3 Hammond Pl
5561 3133
Fees apply



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Media destruction	Cob & Co Recyclers 25 Dickson St 5561 0881	Price on application.	CDs, DVDs, Computer disks, Hard drives and USBs- professionally destroyed.
Metal (all)	Rentsch's Metal Recyclers Cnr Braithwaite St & Harrington Rd 5562 7802.	May pay for metal dependent upon market prices for Drop off.	Whitegoods are accepted and degassed. Will collect car bodies.
	Eccles 6 Watson St 5562 3227	May pay for metal; depends on market prices- Drop off.	Depends on market
	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Accepts aluminium cans, steel and car batteries.
Metal	Cob & Co Recyclers 25 Dickson St 5561 0881	FREE Drop off	VISY/ SKM
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	Open 8am-4pm, Mon-Fri
	Westvic Waste 3 Hammond Pl 5561 3133	FREE	Depends on market
Mobile phones & accessories	Warrnambool City Council Civic Centre 25 Liebig St. Other sites in Warrnambool inc milk bars, schools, phone and electrical shops	FREE through MobileMuster — product stewardship. Inbuilt cost when you buy phone.	Mobile Muster
	WDEA 11 Albert St 5564 5200 8am-4pm, Mon-Fri	FREE	Recycled
Oils- motor Oil filters and oil containers	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	
	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Transpacific
	Westvic Waste 3 Hammond Pl 5561 3133	Fees apply	
Oils- household cooking	Use kitty litter to absorb the oil, wrap in newspaper, then put it in the rubbish.		
Oils- Commercial	Birmingham Septic 0400 737 349	Fees apply	
Paint	Detox Your Home permanent site at Statewide Recycling 355 Koroit St 5561 1195	FREE for domestic quantities. Fee applies for commercial disposal.	Funded by Sustainability Victoria. Collected by Toxfree, recycled or diverted from landfill.
Paper & cardboard	Cob & Co Recyclers 25 Dickson St 5561 0881	FREE Drop off	Melbourne recyclers. Paper is pulped and turned into tissues and toilet paper.
	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Depends on market
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	VISY/ SKM

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	Westvic Waste 3 Hammond Pl 5561 3133	Fees apply	Depends on market
Cardboard from building sites Cardboard –	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Great rates apply when booking a general waste skip for your building site.
Waxed cardboard	Waxed cardboard cannot be recycled.		Reused- these boxes are great for storage.
Plastic	Cob & Co Recyclers 25 Dickson St 5561 0881	Fees may apply drumMuster- Free	Accepts all plastics soft & hard, inc wrap, low density polyethylene, cassette & video tapes. drumMuster agent.
	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	
	Westvic Waste 3 Hammond Pl 5561 3133	Fees apply	
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	VISY/ SKM
Plastic Bags	All Coles Supermarkets	FREE	Redcycle- turns plastic bags into outdoor furniture.
	All Woolworths Supermarkets	FREE	
	Cob and Co 25 Dickson St 5561 0881	FREE	Takes all soft plastics, cling wrap & low density polyethylene.
Plastic soft	REDcycle 38 Chelmsford St Williamstown North VIC 3016	FREE	Send soft plastics to REDcycle; they recycle all flexible plastics such as bread bags, frozen food bags, and confectionary pkts.
	Coles Central		
Polystyrene	WDEA 11 Albert St 5564 5200	Fees apply	Call WDEA for details. Collection available. Bags supplied for storage.
	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	Landfill
	Warrnambool Transfer 20 Harrington Rd 5561 1198	Fees apply	
Printer Cartridges	Tobin Office National 48 Kepler St 5562 0366	FREE	Recycled
	Darrian Office & Art 176 Fairy St 5562 2351	FREE	Recycled
	WDEA 11 Albert St 5564 5200 8am-4pm, Mon-Fri	FREE	Recycled
	Planet Ark partners: Australia Post Harvey Norman The Good Guys	FREE	Recycled- Inkjet & toner cartridges & bottles accepted. Including cartridges used in printers, photocopiers & fax machines.

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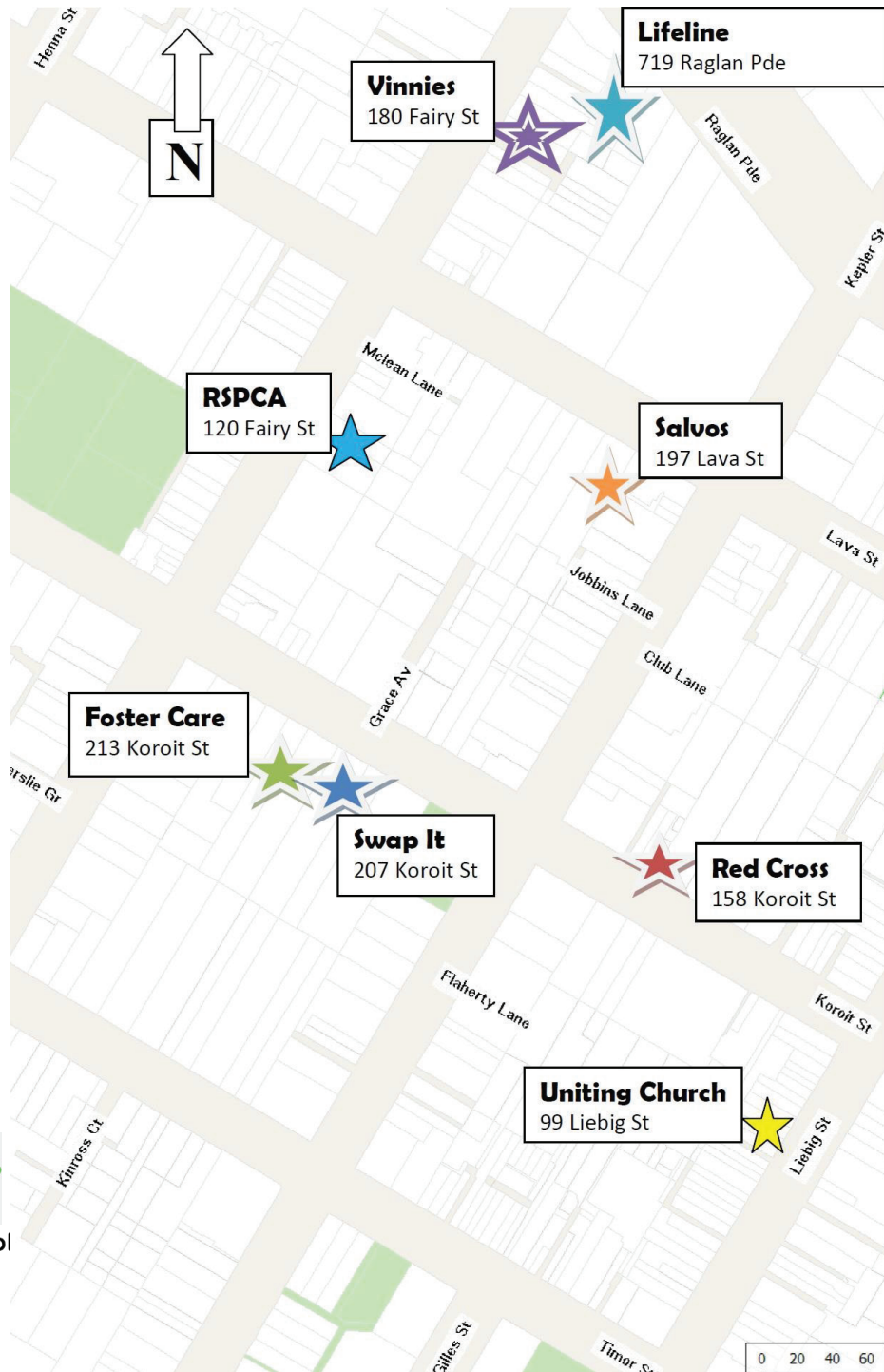
Silage Wrap	Moyne Shire Transfer Stations: Killarney, Hawkesdale, Peterborough, Mortlake, and Macarthur 1300 656 564	Fees apply	Recycled through Plaskab
Sporting Goods	See op shop flyer (Appendix 4) for details.	FREE	Resold
Timber (Council, waste companies, and industrial sites)	Westvic Waste 3 Hammond Pl 5561 3133	Fees apply	Divert material from landfill, creating a clean product suitable for gardens and composting.
	Warrnambool Transfer Station 20 Harrington Rd 5561 1198	Fees apply	
Toys	See op shop flyer for details.	FREE	Resold
Tyres	Statewide Recycling 355 Koroit St 5561 1195	Fees apply	
	Westvic Waste 3 Hammond Pl 5561 3133	\$6 car \$22 truck	
	Warrnambool Transfer 20 Harrington Rd 5561 1198	\$10 car \$20 truck	
Unpackaged Food Cooperative	Uniting Church 115 Koroit St	1st Friday of the month 1.30-2.30pm & 4-7pm	BYO reusable containers
White goods	Rentsch's Metal Recyclers Cnr Harrington Rd 5562 7802	FREE	Metal and degassed
	Eccles 6 Watson St 5562 3227	FREE drop off	Must be degassed prior to drop off.
	Statewide Recycling 355 Koroit St 5561 1195	FREE	Metal (Degassed prior to recycling)
	WDEA 11 Albert St 5564 5200	FREE Drop-off	Degas fridges & offer a collection service for a small fee.
	Westvic Waste 3 Hammond Pl 5561 3133	FREE	Metal (Degassed)

Wonderful Op Shops in Wonderful Warrnambool

Bag a bargain...

From dress ups and vintage clothing to designer labels, you can complete your wardrobe or even *buy* a wardrobe at Warrnambool's Op Shops.

Our CBD has 8 Op Shops within easy walking distance of each other.



Wonderful Op Shops in Wonderful Warrnambool

Have a fun day out in Warrnambool without it costing the earth.....

Opportunity Shop details	Materials accepted	Other info
Foster care Op Shop 213 Koroit St 5561 2525	Clothes, shoes, bric a brac, crockery, cutlery, glassware, books, electrical goods.	Mon-Fri 10am-4pm Sat 10-12
Lifeline 719 Raglan Pde 5559 0555	Vintage clothing, homewares, larger ladies clothing, children's and men's clothing, linen, books, records, CDs, shoes, hats, craft supplies, electrical, picture frames, furniture.	Mon-Fri 9.30am-5pm, Sat 9.30am-1pm Yes Eftpos Profits from retail stores contribute to the national Lifeline 24/7 Crisis Support Service. Lifeline accepts items at their warehouse – 577 Raglan Pde (just beside The Standard at the back entrance to Pontings). Free pick up service M-F, call 5562 8694.
Red Cross 158 Koroit St 5560 5413	Good quality clothing, shoes and jewellery in a well set out store, right in the heart of Warrnambool.	Mon-Thurs 9.30am-4.30pm Fri 9.30am-5pm Sat 9.30am-1pm
RSPCA Warrnambool 120 Fairy St 5562 0679	Clothes, shoes, bags, scarves, jewellery, books, dvds, homewares, gifts, bric a brac	A friendly shop that will welcome you and your pet. No eftpos Mon-Fri 10am-4pm Sat 10am-3pm
Salvos (Salvation Army Thrift Shop) 197 Lava St 5562 4004	Clothes, shoes, Trucks on the road 6 days a week picking up and delivering to Warrnambool and district. Call the shop for bookings.	Will assist with deceased estate clean ups. Offering Grey Nomads volunteering opportunities. Yes eftpos 9am-4.30pm M-F 9am-2pm Saturday
Swap it Warrnambool Baptist Church 207 Koroit St 5561 1066	Free children's clothing exchange. Swapit uses a token system to exchange clean clothes for other previously exchanged clothes. Swapit has a huge range of sizes and styles from newborns to young teens. Also available shoes and children's furniture.	Open Thursday mornings 9.15am – 12 Adjacent to the church lane. Closed during school holidays No eftpos
Uniting Church Op Shop 99 Liebig St 0447 455 969	Good quality merchandise.	Mon 9.30am-4.30pm Tues-Fri 9.30am – 1pm Sat 9.30am-1pm No eftpos
Uniting Church Furniture Shop	Electrical goods, Furniture and electrical goods tagged and tested.	Mon 9.30am-4.30pm Tues-Fri 9.30am – 1pm Sat 9.30am-1pm No eftpos
Vinnies 180 Fairy St 5562 5274	Fashion, homewares, books, furniture, new Manchester and mattresses.	Mon-Fri 9am-5pm Sat 9am-12

Op shops exist to raise funds for very worthwhile charities. Whenever rubbish is dumped this diverts money from the charity to pay for rubbish disposal.

Consider these questions before deciding whether to take your item to the Op Shop or the transfer station.

- Is it broken?
- Does it have holes in it?
- Is it soiled or dirty?

Finally if you are unsure if it is suitable for resale, ask the staff at the OP Shop **before** you drop it off.

Appendix 5

Items that may be accepted in the food organics, garden organics bin.

Organics: What is organic waste?

Organic waste is anything that used to be alive. It includes all food and vegetable & fruit scraps (including citrus fruit), leftovers, spoiled food, meat and bones, even dairy products. It also includes all garden waste like lawn clippings, leaves and small branches. With an organics collection people are asked to place food waste and pet droppings in supplied compostable bags. The flyer below is an example of the items that can be placed in a food and organics bin.

HalveWaste
reduce • reuse • recycle

ORGANICS BIN

WHAT GOES IN THE GREEN LIDDED BIN?

WEIRD AND WACKY, YET STILL ORGANIC!

A - J

- ✓ Animal waste
- ✓ Baked goods
- ✓ Bones
- ✓ Branches
- ✓ Breads, cakes and pastries
- ✓ Cereal slops
- ✓ Cereals and grains
- ✓ Coffee grounds and filter paper
- ✓ Cooking oil (absorb in paper or newspaper)
- ✓ Cooking oils and Fats
- ✓ Cotton balls
- ✓ Dairy foods
- ✓ Dairy products
- ✓ Dryer lint
- ✓ Eggshells
- ✓ Facial tissues
- ✓ Feathers

- ✓ Fish and chip paper

- ✓ Flowers
- ✓ Fruit fly infested fruit (tie up in compostable liner)
- ✓ Fruits
- ✓ General garden clippings
- ✓ Grains
- ✓ Human and animal hair
- ✓ Jelly

K - O

- ✓ Kitchen paper towelling
- ✓ Kitty litter, compostable eg. clay, paper etc
- ✓ Lawn clippings
- ✓ Leaves
- ✓ Leftovers
- ✓ Lollies
- ✓ Meat (raw, cooked)
- ✓ Meat scraps
- ✓ Napkins, paper
- ✓ Newspaper
- ✓ Nuts & seeds

P - Z

- ✓ Paper bags
- ✓ Paper containers and takeaway boxes
- ✓ Paper napkins
- ✓ Paper plates
- ✓ Paper towel rolls
- ✓ Paper towels
- ✓ Pasta
- ✓ Pizza boxes
- ✓ Popsicle sticks
- ✓ Post it notes
- ✓ Poultry
- ✓ Printed serviettes
- ✓ Prunings and cuttings
- ✓ Real Christmas trees
- ✓ Rice and pasta
- ✓ Salad and dressing
- ✓ Seafood (including bones and shells)
- ✓ Seafood shells

- ✓ Shredded paper

- ✓ Small branches
- ✓ Spoiled food
- ✓ Straw and hay
- ✓ Take away foods
- ✓ Tea bags
- ✓ Tea leaves
- ✓ Thorny branches
- ✓ Tissues
- ✓ Toilet rolls
- ✓ Tree roots
- ✓ Vegetables
- ✓ Weeds
- ✓ Wet paper
- ✓ Wood skewers
- ✓ Wooden toothpicks
- ✓ Wooden uncoated chopsticks

To find out more call **CLEANAWAY** on 13 13 39 or visit our website halvewaste.com.au



www.warrenambool.vic.gov.au

Connect to Council

