Don't Waste the Glenelg Shire



Resource Recovery, Waste Minimisation and Management Strategy 2019 - 2024





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Introduction

Vision and Scope

This strategy has been developed in the context of the regional objectives from the Barwon South West Waste and Resource Recovery Implementation Plan to:

- Achieve behaviour change that reduces waste generation and increases resource recovery;
- Encourage innovative and cost-effective ways to increase resource recovery;
- Identify and establish industry relationships to build market opportunities to maximise resource recovery;
- Facilitate the aggregation of services through joint procurement to maximise resource recovery and cost effectiveness; and
- Plan for future waste and resource recovery infrastructure and service needs for the region.

The Glenelg Shire Council Waste Management Strategy 2019- 2024 provides Council's direction for resource recovery and waste management services. Glenelg Shire Council is focusing on providing a reliable waste management service that encourages innovative practices and is proactive to increasing awareness and behaviour change towards resource recovery.

This strategy provides a list of outcomes that Council will work towards over the next five years in line with Council's vision.

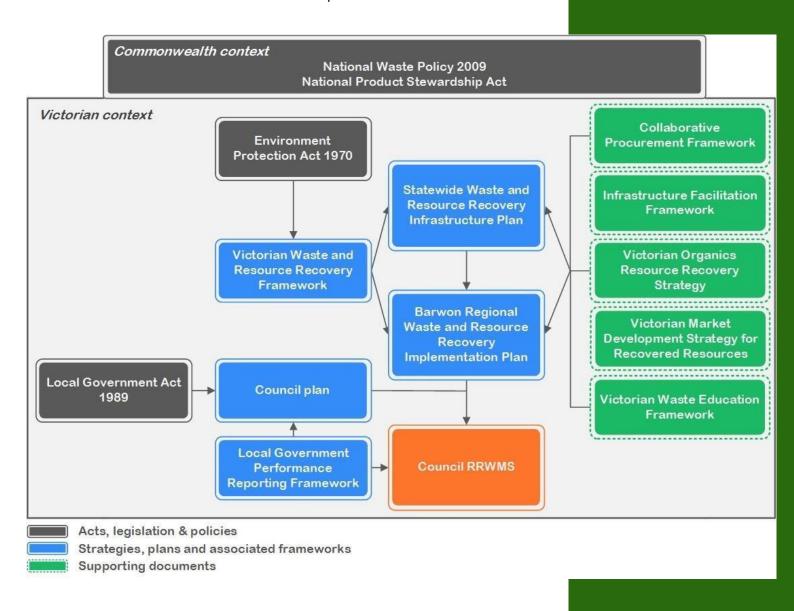
Council's Vision

Glenelg Shire Council is forward thinking and inclusive. We will continue to innovate and develop our diverse economy to deliver services that meet the needs of our community.

Framework

Glenelg Shire Council acts within a wider policy framework for waste management. A range of policies, plans and regulations at regional, state and national levels have been considered in the development of this strategy.

An overview of the framework for Glenelg Shire Council within the Victorian and Commonwealth context is provided below.



Waste Hierarchy

The waste management hierarchy is the underlying principle of waste management policies in Australia and is included in the Environment Protection Act 1970. The hierarchy establishes the following order of preference for waste management:

The Waste Hierarchy

Avoid	1 Maximum conservation of resources
Reuse	2 Reusing materials
Recycle	3 Recycling & reprocessing materials
Waste to energy	4 Energy recovery prior to disposal
Disposal of waste	5 Zero conservation of resources

Avoid

Council cannot control what households buy and dispose of but can provide education that encourages steps to reduce the creation of waste.

Reuse

The reuse of materials that would otherwise end up in the waste stream can provide a variety of social and environmental benefits. Principles of reuse can underpin activities occurring across Council facilities and services such as childcare centres and kindergartens.

Recycle

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

Waste to Energy

Energy from waste technology is still in the early stages of development in Victoria but offers the potential to reduce disposal rates in the future by recovering energy resources from materials that would be sent to landfill.

Disposal

Disposal is the least preferred option. While there are no active landfill sites within Glenelg Shire it is important for the Council to monitor availability and maintain cost effective access to landfill sites in the foreseeable future.

Performance and achievements

Glenelg Shire Council has successfully achieved a number of actions and outcomes outlined in the last waste management strategy. These outcomes have been able to provide a more economically and environmentally sustainable platform for waste management within the Glenelg Shire. Some of these actions and outcomes are in the table and discussion below.

Action implemented	Outcome achieved
Built transfer stations at Casterton, Dartmoor, Nelson and Portland	That the total costs associated with waste management are recovered through uniform waste disposal fees and charges across the Shire and where possible, fees match the disposal costs.
Transfer Stations.	That all waste management facilities achieve a minimum standard of infrastructure with progression towards the Sustainability Victoria Best Practice Guidelines for Resource Recovery Centres, and each Facility is operated for defined hours only.
Ceased landfilling operations at Casterton, Dartmoor, Nelson and Portland Transfer Stations.	That all unlicensed landfills in the municipality be progressively closed and rehabilitated and all municipal waste, transferred from small rural landfills and transfer stations, will be disposed of by Council to the Portland landfill or an alternative regional landfill/s.
Rehabilitated Dartmoor, Nelson and Portland Transfer Stations	That all unlicensed landfills in the municipality be progressively closed and rehabilitated and all municipal waste, transferred from small rural landfills and transfer stations, will be disposed of by Council to the Portland landfill or an alternative regional landfill/s.
Composting garden organics from transfer stations	That Glenelg Shire Council will engage in actions that deliver the best possible Waste Service in a financially responsible manner.

Action implemented	Outcome achieved
Baling cardboard and selling as a commodity.	That Glenelg Shire Council will engage in actions that deliver the best possible Waste Service in a financially responsible manner.
Update illegal disposal/littering Local Laws and create policy regarding the use of public bins	Reduce litter and illegal dumping.
Review the Glenelg Shire Council waste strategy once a new State wide Waste Policy has been implemented	That Glenelg Shire Council progresses towards Zero Waste to Landfill in alignment with the State Government's "Towards Zero Waste Policy"
All waste deposited at transfer stations is transported by inhouse staff or contractors, from the transfer station to the nominated landfill.	That all unlicensed landfills in the municipality be progressively closed and rehabilitated and all municipal waste, transferred from small rural landfills and transfer stations, will be disposed of by Council to the Portland landfill or an alternative regional landfill/s.

Since the development of the last waste management strategy, Glenelg Shire Council has been able to achieve a more sustainable and efficient waste and recycling management service. A fairer "user pay" system has been implemented to be more reflective of what customers are disposing at waste management facilities. Kerbside collections can now also have waste and recycling services charged separately. This allows rate payers to tailor their kerbside collections to meet their needs.

Through preventing further disposal and contamination, the cessation of landfill operations at Casterton, Dartmoor, Nelson and Portland has enabled Glenelg Shire Council to reduce environmental impacts on the land. Dartmoor, Nelson, and Stages 1 and 2 at Portland (3 Stages) landfills have all been capped and are undergoing rehabilitation. Casterton and Stage 3 at Portland are currently (during the development of this Strategy) in the planning and design stage.



To provide better recycling options for residents and other customers, Glenelg Shire Council has been developing new markets and expanding others, while delivering more economic opportunities for the Shire within the waste and resource management sector.

The establishment of the Portland Transfer Station has allowed a cardboard separation trial to be undertaken at the facility. Through removing cardboard from other co-mingled recycling, the cardboard can be sold to a recycler instead of Glenelg Shire Council being charged for transport and processing costs. Additional savings are realised as the process reduces the volume of co-mingled recycling transported to an offsite facility.

A similar system has been put in place with regards to scrap metal. The more precious non-ferrous metals are separated onsite removing the amount of metal being sold for a lower generic scrap metal price.

"drumMUSTER" compounds have also been added to the Portland and Nelson transfer stations allowing the recycling of drumMUSTER approved chemical drums at these facilities for the first time. Garden organics have also been removed from the waste stream at Casterton, Nelson and Dartmoor and are being processed through a certified composter. Markets for recycled products continue to evolve and Glenelg Shire Council must continue to investigate new alternative options to ensure that service delivery is economically and environmentally sustainable.

Feasibility studies and composting trials were undertaken to provide options for economically efficient organics processing. Currently, studies have been unable to support a kerbside collection service, but Glenelg Shire Council has been able to divert the majority of its garden organics from transfer stations through a certified composter as previously mentioned.

New local laws have also been adopted to help prevent littering and illegal dumping but also to tackle the growing issue of public place bins being used for domestic and commercial waste.

Into the future

Kerbside Recycling Collection

The kerbside collection consists of a 120 litre waste bin that is collected weekly and a 240 litre recycle bin that is collected fortnightly. There is currently around 8500 waste and recycling collections and 150 recycling only collections that make up this service.

Monthly Tenements Waste/Recycle	
	8393
Monthly Tenements Recycle only	
According to the Conference of	148
Total All Tenements	8541

With a two bin system in place within the Glenelg Shire, the diversion rate from the kerbside collection is in the order of 10% lower than the average diversion rate for council kerbside collection throughout Victoria. It is expected that this gap would close with the introduction of a Garden Organics (GO) or Food and Garden Organics (FOGO) Bin. The introduction of an organics collection service is a key focus of this strategy.

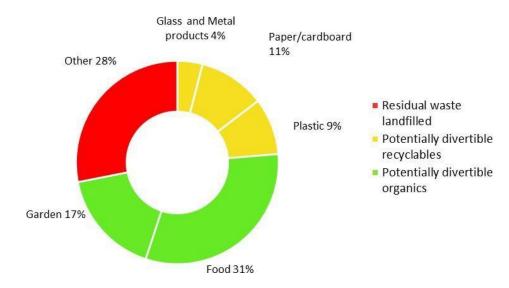


Educating residents and other members of the community about the kerbside recycling system is another key focus within this strategy. Kerbside bin audits were undertaken in 2014 and 2018 with key findings that general waste bins consisted of 50% potentially divertible organic material, around 25% recyclables.



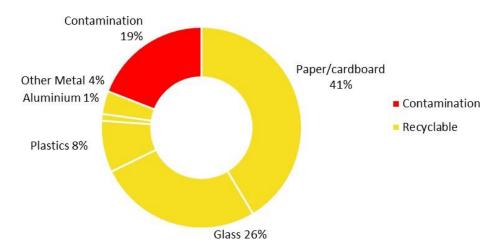
The findings from kerbside audits which took place in 2014 showed that residents were throwing out more recoverable materials than waste. The waste bins that were audited had a combined total of 24% of potentially recyclable material and 48% of potentially divertible organics.

2014 Kerbside Waste Bin Audit



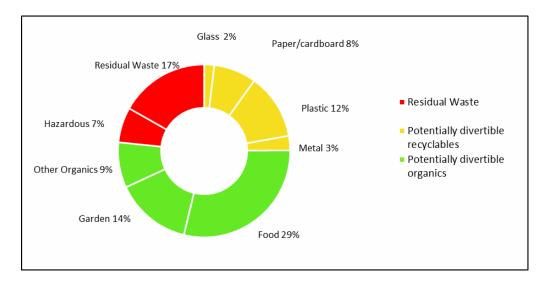
The recycling bins audited had a contamination rate of 19%. With such a significant cross contamination rate, this suggests that there may be confusion as to what is recyclable and what is not. It also suggests that further work in organics disposal should occur to minimise the amount of waste generated by households.

2014 Kerbside Recycle Bin Audit



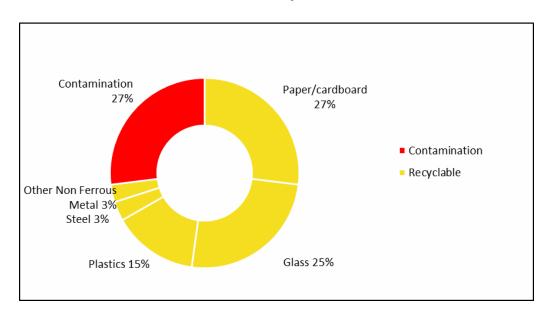
The last round of audits occurred in 2018 and supports previous findings that suggests a trend throughout the Shire. The 2018 kerbside waste audit suggested that over 25% of the waste bin content was recyclable and 52% was potentially recoverable organic material.

2018 Kerbside Waste Bin Audit



The 2018 kerbside recycling audit suggested that the amount of contamination in the recycling stream had increased by around 10%. This could be due to a lack of public confidence in the recycling system following the media attention on the recycling industry issues since 2017. These include recycling facility fires, China's National Sword Policy and the industry flaws exposed by ABC's "War on Waste" documentary.

2018 Kerbside Recycle Bin Audit



Both the 2014 and 2018 audits used only a small sample within the Glenelg Shire (between 1-4 per cent of total bins collected) but they were in different areas within Glenelg Shire which suggest the trends may be shire wide. This data helps council officers to shape changes to the kerbside collection and look for areas for improvement.

Transfer Stations

The previous Regional Plan outlined a regional strategy to have residents within a 25km radius of a transfer station or landfill. The majority of the shire is covered, with primary consideration needed for residents in the north eastern sector of the Shire. In accordance with the previous Regional Plan, transfer stations have been progressively established as smaller rural landfills have been closed.

These transfer stations include:

- Casterton Transfer Station;
- Dartmoor Transfer Station;
- Heywood Transfer Station;
- Merino (Jarrad's Road) Transfer Station;
- Nelson Transfer Station; and
- Portland Transfer Station.

Collected co-mingled recyclables are transported to Portland in the "hook lift" receptacles, weighed at the Portland transfer station and then delivered to the recycling processor.

General waste deposited at the regional transfer stations is transported to Portland in the "hook lift" receptacles and weighed. Portland Transfer station is used as a storage area where the waste is combined and stored before being loaded into vessels and transported to a privately owned landfill facility.



Recycling... More than just cans bottles and paper

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.

Portland Transfer Station 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.

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 Ag Stewardship.

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.



E-Waste

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.

Western District Employment Access currently provides electronic waste (e- Waste) recycling for Glenelg Shire and the south west region.

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

This service is becoming more important with a State legislated ban on electronic waste going to landfill implemented on 1 July 2019.

Portland Lions Club are currently responsible for the collection of lead acid batteries from the Shire's transfer stations.

Mobile Phones

Over 99% of the resources in mobile phones can be recovered and returned to the supply chain to go back into making new products. The Australian Mobile Telecommunications Association (AMTA) states that recycling 50,000 mobiles saves 99 tonnes of mineral resources and 19 tonnes of CO2 emissions. AMTA also believe there are approximately 23 million unused mobile phones hidden in our drawers and cupboards across Australia, of those 5 million are broken and no longer working.

Old mobile phones and accessories are able to be recycled at any Glenelg Shire transfer station or customer service centre.





Household Batteries

Materials such as lead, cadmium, mercury, lithium, uranium, manganese, nickel and zinc are used to make batteries. These materials are all non-renewable, can be recycled an indefinite number of times and have a commercial value. Batteries also contain hazardous chemicals which need to be kept out of the natural environment.

Household batteries can be recycled at any Glenelg Shire transfer station or customer service centre.

Whitegoods

The refrigerants that are contained in air-conditioners and refrigerators can be extremely harmful to the environment. Many refrigerants, such as chlorofluorocarbons (CFCs) damage the ozone layer, while others are extremely potent greenhouse gases. Like all whitegoods, air-conditioners and refrigerators can be recycled at any Glenelg Shire transfer station. The refrigerants are recycled and the remaining item is separated into scrap metal.

Tyres

Each passenger car tyre contains approximately 1.5kg of steel, 0.5kg of textiles and 7 kg of rubber. Used tyres are turned into shred for use as alternate fuels; to rubber crumb and powder for use in roads, playgrounds and industrial adhesives; and whole or part for use in civil construction for roads, retaining walls and sound barriers. Used tyres can be recycled at any Glenelg Shire transfer station.

Printer & Toner Cartridges

As cartridges are made up of a complex mix of plastics, metal, inks and toners they represent a significant investment in resources.

When recycled, toner cartridges are broken down and turned into products such as road asphalt, pens and ink. Cartridges can be recycled at any Glenelg Shire transfer station or customer service centre. Australia Post offices are also a collection point for recycling cartridges.





Objectives

All of Glenelg Shire Council's objectives are in line with the objectives from the Barwon South West Waste and Resource Recovery Group's objectives. There is a heavy focus on education and market development to promote waste avoidance and to improve recycling practices.

Barwon South West WRRG Strategic Objectives

- Achieve behaviour change that reduces waste generation and increases resource recovery.
- Encourage innovative and cost-effective ways to increase resource recovery.
- Identify and establish industry relationships to build market opportunities to maximise resource recovery.
- Facilitate the aggregation of services through joint procurement to maximise resource recovery and cost effectiveness.
- Plan for future waste and resource recovery infrastructure and service needs for the region.

Glenelg Shire Council Strategic Objectives

- Increase opportunities for best practice resource recovery
- Increase community awareness of waste and support and encourage waste avoidance.
- Reduce litter and illegal dumping.
- Improve resource recovery and reduce contamination.
- Improve environmental compliance of waste management facilities.
- Investigate income opportunities for resource materials.



Strategy Actions

The next five years will see further improvement of environmental compliance at waste management sites as well as the continued development of markets for recycled product. The establishment of an organics kerbside service is one of the main priorities.

There will be a strong emphasis around developing community awareness of waste avoidance and the issues associated with littering and illegal dumping.

Below are the actions to be undertaken to achieve Council's objectives within this Strategy.

Increase opportunities for best practice resource recovery

- Utilise the best practice guidelines through Sustainability Victoria's Public Place Recycling Toolkit and Public Place Waste Signage Guidelines;
- Assess options to improve Heywood and Merino transfer stations in line with the Best Practice Guidelines for Resource Recovery Centres and the Environment Protection Amendment Act 2018; and
- Seek opportunities to introduce food and garden organics kerbside collection service.



Improve community awareness of waste and support and encourage waste avoidance

- Develop an education campaign to educate the community about the environmental impacts of single use plastic shopping bags and the promotion of reusable shopping bags;
- Promote Sustainability Victoria's "Love Food, Hate Waste" campaign;
- Promote Sustainability Victoria's "Resource Smart Schools" program;
- Educate the community on EPA Victoria's new ban on E-Waste going into landfill; and
- Promote and support community programs on waste avoidance.



Reduce litter and illegal dumping.

- Undertake street litter audits;
- Promote EPA Victoria's illegal dumping report hotline;
- Empower the community to undertake sound waste management at community events through the use of shared resources;
- Investigate opportunities to enhance public place collections;
- Record litter and illegal dumping data; and
- Investigate opportunities for litter abatement programs within the Glenelg Shire.



Improve resource recovery and reduce contamination

- Implement Glenelg Shire Council's Waste Education Strategy 2017;
- Undertake bin audits and report findings to the community;
- Continue to promote Sustainability Victoria's "Get it Right on Bin Night" campaign or other state-wide recycling campaigns;
- Implement Public Place Recycling throughout all major townships within the Glenelg Shire;
- Investigate options for an organics kerbside collection service;
- Reduce organics to landfill; and
- Participate in Barwon South West Waste and Resource Recovery Group's regional organics education campaign.



Improve environmental compliance of waste management facilities.

- Cap and rehabilitate Portland and Casterton Landfill;
- Investigate opportunities to rehabilitate legacy landfills; and
- Improve compliance to Portland Landfill's operating license conditions as set by EPA Victoria.



Investigate income opportunities for resource materials.

- Investigate opportunities to establish markets for Transfer station products;
- Investigate opportunities for cost saving and resource recovery uses
 e.g. concrete, food and garden organics; and
- Participate in collaborative procurement where appropriate.



Other Council Initiatives and Activities

Littering and Illegal Dumping

Littering and illegal dumping is an area of concern given the number of environmentally sensitive areas, waterways and the marine environment that is so significant to Glenelg Shire. 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 kerbside 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.

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

What Will Glenelg Shire Council Do?

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.

Plastic Bag Ban

Glenelg Shire consists of many waterways and coastlines. 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 within the Glenelg Shire. Plastic bags are also the main contaminant in kerbside recycling bins. Plastic bags take many years to break down in the waste stream and in the environment.

With Aldi, IGA and Woolworths all banning single use plastic bags from their operations, becoming a plastic bag-free community has become a more attainable goal. Glenelg Shire Council wishes to establish a Boomerang Bag community to further cut down on the reliance of plastic bags.

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 introduced bans on single use plastic bags, with Queensland and Western Australia banning bags in 2018. The Victorian Government has announced an introduction of a ban on single use plastic bags as of 01 November 2019.

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 reusable bags.

These soft plastics are currently not acceptable in the kerbside recycling collection service.



What Will Glenelg Shire Council Do?

Council will continue to strongly support the reduction in plastic bag use and encourage the Shire'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 avoid 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 post ban.

Coffee Cups

Most takeaway coffee cups are lined with a waterproof plastic called polyethylene, not only making them non-recyclable, but also a contaminant. A polyethylene-lined coffee cup thrown into a recycling bin causes such logistical issues for material recovery facilities, that it could potentially cause the entire load to be sent to landfill. Planet Ark states that, in Australia alone, 50,000 coffee cups go into landfill every 30 minutes.

What Will Glenelg Shire Council Do?

Glenelg Shire Council will continue to encourage the community to use reusable cups for their hot beverages. GSC will also continue to advocate that business owners use an environmentally friendly alternative to the polyethylene lined coffee cups. This could be a recyclable option or compostable.



Organics Recycling

Diversion of food organics from landfill is becoming a priority for councils in Victoria. As of April 2017, 11 out of 79 councils in Victoria (14 per cent) were providing a food organics collection service to households, with a handful also looking to collect food organics from small businesses. There are now 53 out of 79 (67 per cent) currently providing some sort of organics collection service to their residents.

Bin audits that were conducted in 2014 and 2018 within the Glenelg Shire, suggest that around 50% of the kerbside waste is food and organic material that could be recovered. Since the construction of Portland Transfer Station, GSC has been sending the garden waste from transfer stations to a contractor for composting. There is great potential to further increase the recovery rates from food and/or garden organics by introducing an organic kerbside collection service.

In December 2018, GSC polled the community via social media and Your Say Glenelg. Over 90% of respondents were interested in an organics collection service of some type.

What Will Glenelg Shire Council Do?

Glenelg Shire Council will continue to look for opportunities to establish a kerbside collection service for food and/or garden organics. GSC will also investigate alternative ways to process organic material locally. Education about vermiculture and home composting will also continue.



Product Stewardship

Paying for recycling when disposing of a product 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.

One example of product stewardship is the Australian Packaging Covenant (APC). The 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.

Through the APC, industry agrees to take a leading role in managing the impact of its packaging. 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.

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

Below is a list of current product stewardships within Australia:

- Mobile Muster;
- Cartridges for Planet Ark;
- Australian Packaging;
- Covenant Fluorocycle;
- Tyre Stewardship Australia;
- Oil Stewardship; and
- Battery.

What Will Glenelg Shire Council Do?

Council believes that product stewardship should be mandatory across a much broader range of products. Council will continue to advocate for mandated product stewardship.

Container Deposit Scheme (CDS)

Container deposit legislation 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.

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

A study conducted in 2012 found that the volume of materials in kerbside recycling decreased by 17% with a CDS. With this in mind and the cost of processing recyclables doubling a CDS is an important initiative to reduce littering and contamination of recyclables.

What Will Glenelg Shire Council Do?

It is estimated that in Australia the overall beverage container recovery rate is about 62%. Glenelg Shire Council would support a CDS, Council will continue to monitor the deposit legislation debate while encouraging greater participation in public place and kerbside recycling.



Smart Cities

Glenelg Shire Council is committed to continuing to innovate. Innovation is paramount to ensuring that the services provided by Council continue to be as efficient as possible.

Currently GSC is trialling the use of bin sensors and smart bins to better improve the public place waste and recycling collection.

The bin sensors use an infrared detection system and GPS system to alert council officers on how full the bin is. Officers can then use this information to track the waste generation within that area and better manage the waste and recycling collections within that area.

Smart bins add another dimension to the bin sensors. With the addition of a solar powered compaction unit, smart bins allow more waste and recycling to be collected allowing more time between collections. Smart bins are currently being trialled in Dartmoor. Dartmoor is a major tourist thoroughfare and there have been significant issues of bins being overfilled on a regular basis. The waste is only ever collected on a weekly basis and recycling fortnightly, so the more capacity the bins have the better.

