



City of
Mount Gambier



Waste and Resource Recovery Master Plan

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Introduction

The City of Mount Gambier Waste and Resource Recovery Master Plan articulates the complex framework of waste and resource recovery related legislation, policy and strategies that govern service delivery. The Waste and Resource Recovery Master Plan has been designed to be a dynamic and agile overarching strategy that can provide a clear vision to deliver high quality and sustainable waste services to the community.

In 2023, City of Mount Gambier adopted the “Waste and Resource Recovery Strategy 2023-2030”.

The Strategy, which was developed to meet the requirements of the State Government's *South Australia Waste Strategy 2020-2025*, articulates a vision and target for our waste and resources recovery operations.

Vision

“Be an innovative leader in regional waste management, supporting the local circular economy through increased resource recovery, and empowering our local community to reduce waste and maximise reuse and recycling.”

The strategy also outlines objectives and high-level priority actions which provide a framework for achievable local solutions to enhance service delivery, manage costs and drive innovation in resource recovery. These objectives are outlined below, together with a summary of our targets and our measures of success.

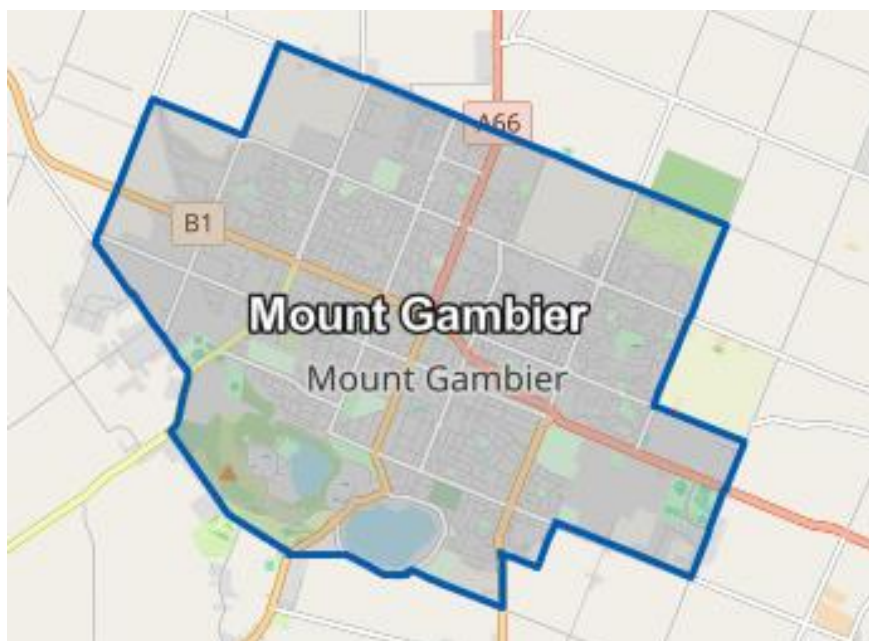
Objective	Where are we now?	Where do we want to be?
Objective 1 Increase landfill diversion	According to the <i>SA Kerbside Waste Performance Report 2020-21</i> , the average landfill diversion rate for regional SA is 40.1%. City of Mount Gambier sits above the average with a current (2024-2025) rate of 53% , an increase of 9% since 2015/2016. Recycling represents 16% of waste diverted from landfill, with 37% being FOGO.	<i>South Australia's Waste Strategy 2020-2025</i> allows regional local government areas to set regionally appropriate and progressive waste diversion targets. Accordingly, City of Mount Gambier has set a progressive landfill diversion rate target of 60% by 2026/2027 and 65% by 2029/2030 . To further support increasing landfill diversion, our aim is to have 60% of our residences using the Food Organics/ Garden Organics (FOGO) service .
Objective 2 Provide high quality waste and resource recovery services	Council operates the Waste Transfer Station, ReUse Market and Caroline Landfill. It also runs the kerbside collection service.	Landfill pre-sort options, artificial intelligence and other options for ensuring best practice waste management and resource recovery

and infrastructure that supports the local economy	These are operated in an efficient manner, but there are opportunities for improvement.	have been fully investigated and implemented where feasible.
Objective 3 Financially sustainable waste services	Council endeavours to operate its waste services in a financially sustainable matter, however we need to gain a better understanding of future costs, especially those associated with the post-closure provisions of the landfill.	Financial model has been developed to ensure financially sustainable waste services. Costs do not exceed revenue from the landfill gate fee and waste service charge.

Part 1: Background

1.1 Overview of City of Mount Gambier

The City of Mount Gambier is South Australia's largest regional city. Encompassing a total land area of over 30 square kilometres, the city comprises residential, commercial, industrial, rural-residential and undeveloped areas.



In 2024 the estimated population of the city was 27,888. This number has shown a modest but steady increase of 7.2% over the past 11 years and is predicted to continue increasing by an average of 0.82% per year (*Source: Plan SA's medium growth rate*), resulting in a 16.3% growth in population over the next 20 years.

The number of properties serviced by Councils waste service in 2024/2025 was:

- Residential 12,953
- Commercial 1,074
- Industrial 238
- Rural 11
- Other 55

1.2 Waste Hierarchy

City of Mount Gambier endeavours to manage waste in accordance with the waste management hierarchy. Under the hierarchy disposal to landfill is a last resort. Wherever practical CMG seeks to manage waste as a resource, ensuring that it is diverted away from landfill towards beneficial reuse, and thus supporting the circular economy.



Source: SA EPA

https://www.epa.sa.gov.au/environmental_info/waste_recycling

1.3 Waste Service Charge

Waste services are funded through a Waste Service Charge which is included on the annual rate notices. For the 2024/25 financial year, this charge was \$311.00 per rateable property, with total revenue raised for the year being \$4,456,941.00.

1.4 Key Stakeholders

There are several key stakeholders who will have an interest in this master plan:

- City of Mount Gambier
 - Elected Members
 - Council staff
- Mount Gambier community
- Federal Government
 - Regional Development Australia Limestone Coast
- State Government
 - Environment Protection Authority (EPA)
 - Green Industries South Australia
- Local Government
 - Limestone Coast Councils (namely District Council of Grant and Wattle Range Council)

- Limestone Coast Local Government Association
- Landfill users
- Waste receivers
 - Council's contractor for the "Receival and Disposal of Organic Waste"
 - Council's contractor for the "Receival of Recyclable Material"

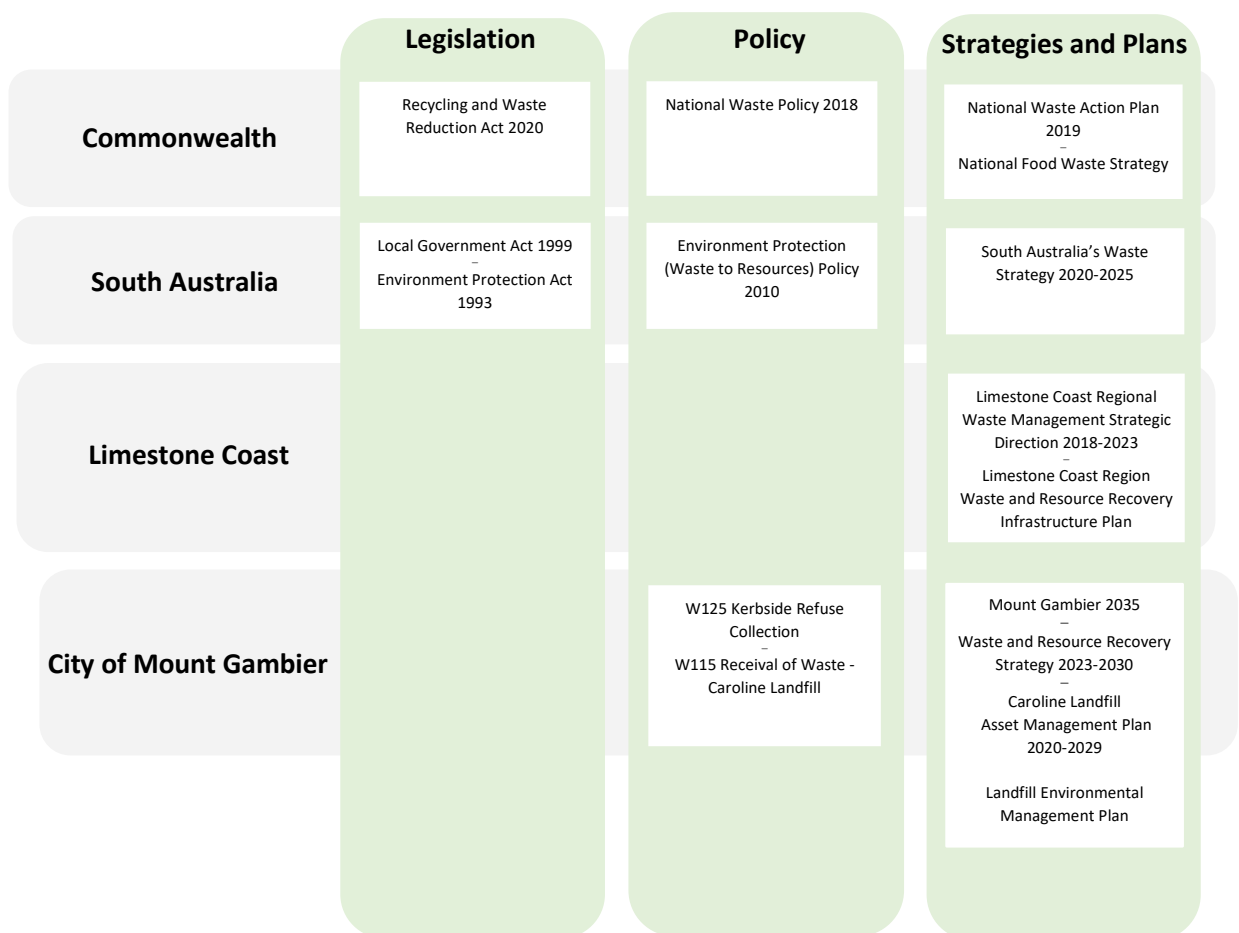
Ongoing communication with these stakeholders will ensure vested parties are working together to achieve common goals.

Part 2: Policy and Regulatory Framework

2.1 Legislative and Statutory Requirements

City of Mount Gambier has to meet many legislative and statutory requirements including Commonwealth and State regulations.

The following framework has been developed to illustrate the relationship between legislation, policy, strategies and plans that support and govern Council in achieving its objective to deliver high quality and sustainable waste services.



2.2 Regulatory Compliance

2.2.1 Caroline Landfill

This facility is operated under the guidelines set out in the South Australian EPAs Environmental management of landfill facilities – solid waste disposal 2019.

The Landfill Environmental Management Plan (LEMP) is an EPA requirement set out in the above guidelines, which provides the framework for the management and mitigation of environmental impacts during the construction, operation and closure of the landfill, and the post closure period.

The landfill operates under EPA Licence 2504.

2.2.2 Waste Transfer Station (WTS)

This facility is operated under EPA Licence 2412. This details the conditions that the site must operate under. Conditions include keeping all materials under cover, what the site can and cannot accept, and recording the volumes of materials.

Transfer stations and material recovery facilities (MRF) receive and store waste in a designated area for segregation and resource recovery. They feed recovered wastes into recycling facilities that usually deal with a single recyclable waste stream to produce a recycled product instead of mixed waste for separation.

‘Waste or recycling depots’ are activities of environmental significance as prescribed by Schedule 1, Part A of the Environmental Protection Act 1993 (the Act) and must be licensed or otherwise authorised under Part 6 of the Act.

Part 3: Waste Management at City of Mount Gambier

3.1 Overview of the Current Waste Management Process

City of Mount Gambier provides five main waste services/facilities:

- Kerbside Collection Services
- Waste Transfer Station
- ReUse Market
- Caroline Landfill
- Street Sweeping

Kerbside collections include landfill waste, organics and recycling. Landfill waste goes to the Council operated landfill at Caroline. Organics are transported to a local composting facility. Recycling is delivered to a local sorting facility, where the materials are sorted and then sent to other facilities for recycling.

Caroline Landfill not only receives Council's kerbside landfill waste, it also receives waste from contractors.

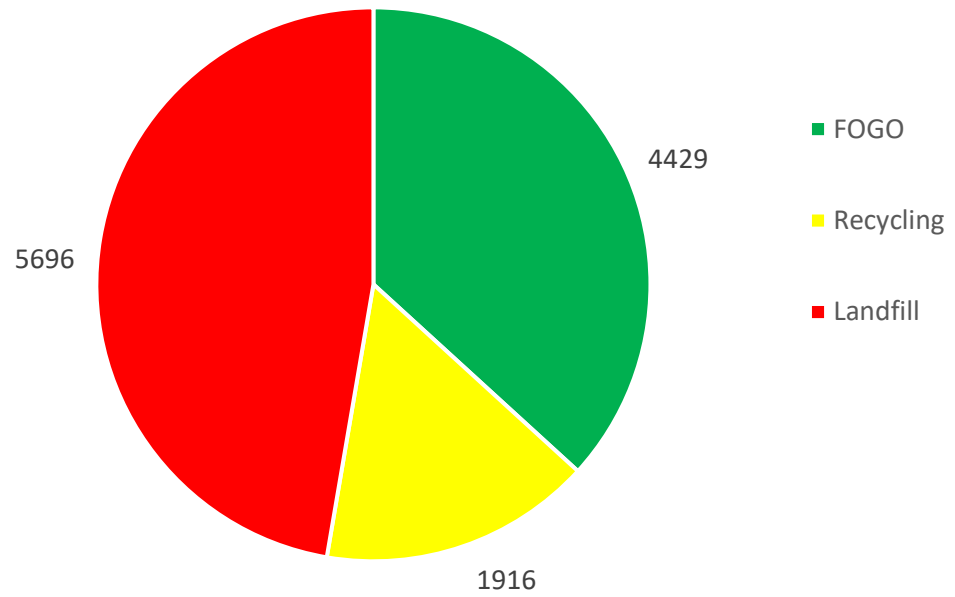
3.2 Historical Waste Data

2024/2025 Financial Year

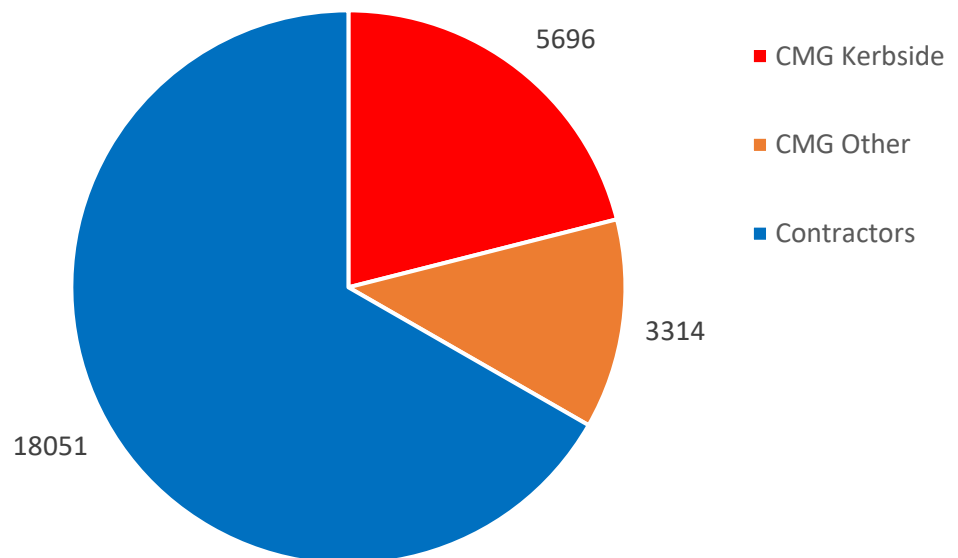
In the 2024/2025 financial year, City of Mount Gambier received the following waste volumes (in tonnes) via the kerbside system and direct to landfill.

Kerbside Collections			Landfill		
FOGO	Recycling	Landfill Waste	CMG Other	Contractors	Total Waste to Landfill
4,429 t	1,916 t	5,696 t	3,314 t	18,051 t	27,061 t

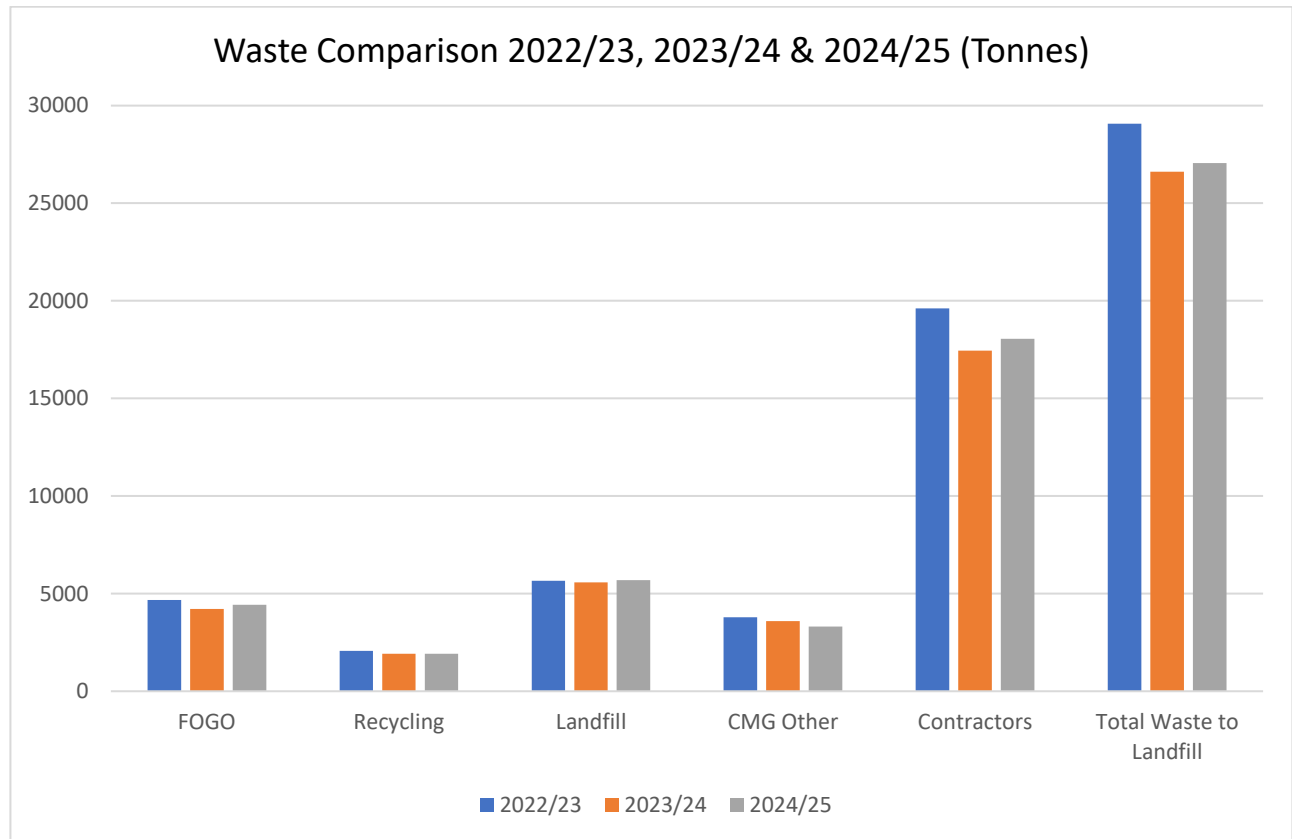
2024/25 Kerbside Volumes (Tonnes)



2024/25 Waste to Landfill (Tonnes)



Waste Volumes Comparison – 2022/23, 2023/24 and 2024/25 Financial Years



3.3 The Three Stages of Waste Management

Waste Management at City of Mount Gambier can be summarised in three stages:

➤ Stage 1 – Collection

Council operates a kerbside collection service – collecting FOGO, recycling and landfill waste.

The WTS accepts a wide range of materials, as the general public cannot access Caroline Landfill.

➤ Stage 2 – Post Collection

- **Kerbside**

FOGO material and recycling is taken directly to Council's contractors for "Receival and Disposal of Organic Waste" and "Receival of Recyclable Material" respectively, with landfill waste being taken directly to Caroline Landfill.

- **Waste Transfer Station**

The purpose of the WTS is to divert material away from landfill. Materials are divided into separate categories in order to facilitate reuse and recycling.

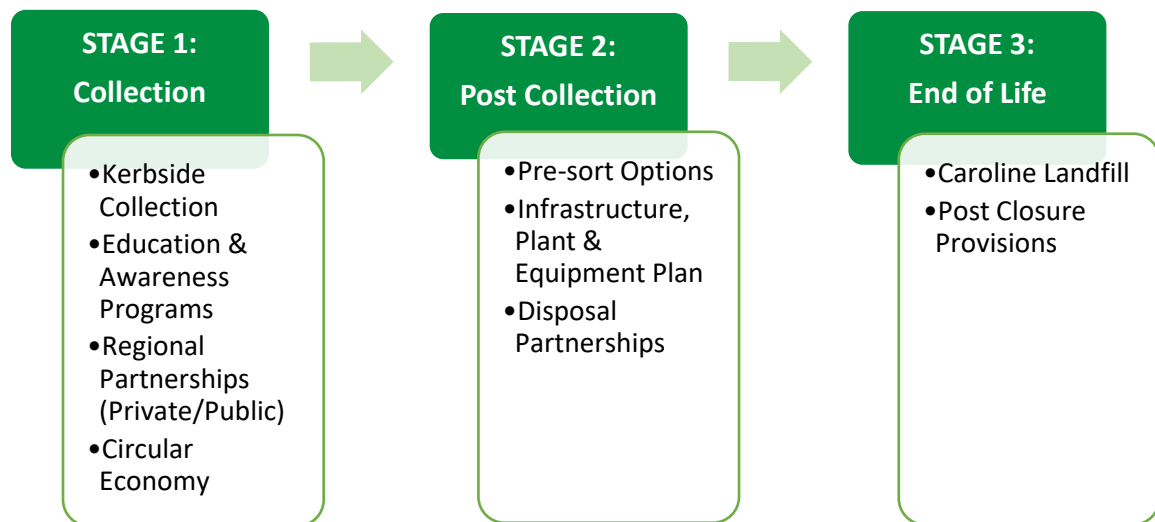
- Good quality miscellaneous items are sent to the ReUse Market for reuse.
- Clean polystyrene is put through a condensing machine. The subsequent material is sent off for recycling.

- Other materials are sent off to various locations for recycling e.g. green waste goes to the organics contractor for composting, batteries get sent to Melbourne for metals recycling etc.

➤ Stage 3 – End of Life

This is the final stage and ideally would only include material that cannot be reused or recycled, this ends up at Caroline Landfill.

- Contents of landfill waste kerbside bins.
- Contents of the landfill skip at the WTS.
- Contractor waste that is taken directly to landfill.



The following pages identify and summarise actions which can be taken to meet the objectives of the Waste and Resource Recovery Strategy.

3.3.1 Stage 1 - Collection

(a) Kerbside Collection

Council provides a kerbside collection for:

- **Landfill Waste – 140 Litre MGB – Weekly Collection**

Each rateable property is entitled to one landfill waste bin. Contents of this bin are taken to Caroline Landfill and buried.

- **Recycling – 240 Litre MGB – Fortnightly Collection**

Each rateable property is entitled to one recycling bin. Contents of this bin are taken to a local recycling facility for sorting.

- **Food Organics Garden Organics (FOGO) – 240 Litre MGB – Fortnightly Collection**

Council has a fortnightly FOGO kerbside collection service (previously called the green waste service).

The above services are included in Council's Waste Service Charge (\$344.00 per annum), with the only additional charge for users being a

one-off payment of \$104 (GST inclusive) for the purchase of a 240 litre FOGO bin. *Note: Amounts current for the 2025/26 financial year.*

Council engaged a consultant to investigate alternative collection service frequencies to identify opportunities to increase landfill diversion.

It is likely that State Government will require local government to collect FOGO on a weekly basis, starting with metro councils, and then large regional centres with local processing options. An exact timeframe has not been enunciated at this stage, but the government has flagged that this is their intention for the future.

Weekly FOGO collection is likely to be the most significant factor in assisting Council to meet its 65% kerbside waste diversion target by 2030.

Below is an indicative timeline required for the implementation of a weekly FOGO service with fortnightly landfill collection:

2025	
September	Strategy & Business Case
October	Council report and adoption
2026	
January	Secure budget
July-August	Order trucks, bins, caddies, recruit staff
September	Develop Communication Plan
2027	
March	Commence community education
May	Commence Roll Out

Actions:

- *Undertake route optimisation exercise to identify efficiencies and cost savings.*
- *Review additional plant requirements to cater for increase in collections, and as contingency to cover servicing and break downs.*
- *Keep abreast of relevant policy changes e.g. the EPA Waste to Resources Policy review and its potential impact on kerbside collection services.*
- *Further investigate what resources would be required if Council pursued weekly FOGO collections, develop a strategy with timelines.*

(b) Waste Transfer Station

The WTS, located at 5 Eucalypt Drive, is an important link in our community's total waste management system that aims to reduce landfill by understanding the challenges, opportunities, and unique issues of managing waste.

The facility plays a vital administrative role in the collection, treatment and disposal of waste streams received including commercial contractors, residents, and community members.

Material taken through the WTS from domestic customers is separated prior to going to landfill to ensure maximum resource recovery.

Council pays the costs to the EPA on behalf of the customers visiting the facility. Fees charged to customers at the weighbridge are directly connected to EPA fees as well as the cost to manage, operate new and old landfills as well as the recovery of material derived from waste.

The WTS is where all items are salvaged or donated for the ReUse Market.

The WTS also assists to deliver waste education to community groups and schools through regular site tours where participants see the process of recovery, recycle and reuse, and promotion of Council's 'sort and save' initiative.

The WTS is a 7 day a week facility and is a popular destination for those who are enthusiastic about material to landfill reduction.

Material accepted at this facility include: Landfill waste (household rubbish), Stone, Concrete, Bricks, Garden Organics, Untreated Timber, Metal, Mattresses, Lounge and Armchairs, Fluorescent Lights, CFL Lights, Fridge and Freezers, Motor Oil, Cooking Oil, E-Waste, TV's and Computers, X-Rays, Tyres, Cardboard, Polystyrene, House Paint, Batteries, Car Batteries, Oral Care, Plastic Bottle Lids, Good quality items for the ReUse Market and Asbestos by arrangement.



Actions:

- *Investigate the life and ongoing requirements of the existing weighbridge.*
- *Increase coverable areas to keep material handling out of the elements and meet regulatory requirements.*
- *Investigate further education opportunities.*
- *Review process, structure and resourcing options to reduce kerbside waste landfill.*
- *Increase engagement with charity organisations, maximising landfill reduction and increasing material via the ReUse Market.*

- *Investigate initiatives for further material handling, to reduce landfill with consideration of economics, volume of material, circular economy, education.*
- *Investigate software upgrade with the ability to provide reciprocated data to EPA and resource savings with consultation from iServices.*
- *Office extension to minimise disruption to regulatory reporting required for weighbridge operations.*
- *Recruit additional volunteers.*
- *Ensure staff understand the details and requirements of the EPA licence for the site.*
- *Test and trial material recovery initiatives.*
- *Maintain a proactive culture of innovation.*
- *Aspire to deliver best practice service.*
- *Investigate potential to act as an incubator site for waste reduction initiatives.*
- *Investigate re-branding to “Materials Transfer Station”.*
- *Increase education and promotional material via social media.*
- *Continue to evolve educational activities.*
- *Investigate feasibility for increased onsite polystyrene recycling options.*

(c) Education and Awareness Programs

- **Community Education**

Council undertakes regular community education activities, some of these include:

- tours of Council’s three waste facilities – for school groups, community groups and the general public
- visits to schools and community groups
- public talks and workshops
- partnering with schools on education activities in association with Council providing extra recycling and FOGO bins
- stalls at public events
- via social media and Council’s website
- print and other local media outlets
- educational flyers and stickers
- letterbox drops
- rates notices

- **Organisational Education**

Continue to provide tours of Council’s waste facilities, and other educational material to staff and elected members.

- **Artificial Intelligence**

Council is participating in a trial utilising AI to detect contamination in kerbside bins. The trial involves using footage recorded by the collection trucks, which is then analysed using AI technology. The resulting data and information will enable Council to measure contamination in the three kerbside streams, as well as undertake targeted education campaigns.

- **Kitchen Caddy**

A free kitchen caddy and roll of compostable bags is available to each rateable property with a FOGO bin. All food and garden waste can be disposed of in the FOGO bin.

- **Home Compost Equipment**

Council has partnered with the *Compost Revolution* to provide ratepayers with subsidised home compost equipment (currently 50% subsidy).

Actions:

- *Further promote FOGO service and home compost equipment.*
- *Engage with schools and community organisations to reduce contamination and waste to landfill.*
- *Ensure neighbouring councils and their communities engage and comply with contamination and waste reduction to landfill initiatives, including a minimum 3 bin system in surrounding towns.*

(d) Regional Partnerships

Given the region's relative isolation and small population, when compared to large metro areas, it is sensible to unite efforts wherever possible. Regional partnerships are important to ensure the best outcomes to educate our community on waste management to support the local circular economy. Council should endeavour to maintain partnerships with the following organisations and groups:

- *District Council of Grant*
- *Wattle Range Council*
- *Industry Plastics Reduction Working Group*
- *Limestone Coast LGA*
- *RDA Limestone Coast*
- *Supply partners*
- *Independent Learning Centre*
- *Volunteers*
- *Various charity organisations*
- *Locally based waste contractors (Landfill Users)*
- *EPA*
- *SA Water*
- *LMS Energy Landfill Gas Flaring*

Actions:

- *Schedule an annual calendar to ensure information sharing and catchups are held regularly.*

(e) Circular Economy

Circular Economy is an approach that seeks to keep resources and materials circulating through the economy via methods such as reuse, repurposing and recycling. This is opposed to the linear approach of make, use and dispose – where valuable resources and materials are buried in landfill or incinerated.

Council seeks to foster this circular approach, minimising waste to landfill, and supporting the local circular economy. This not only reduces waste, but also supports local employment. Reuse and recycling approaches generate many more jobs than waste to landfill.

In 2022 GISA and RDALC launched the **Circular Economy Opportunities: Limestone Coast** report. The report highlights the unique circular economy opportunities for the region. The detailed analysis of the region's economic, resource use, and waste generation profile has identified the industry sectors and specific initiatives that offer the greatest opportunity for circular action.



Figure: Emerging Market Trends in Operational Waste Management & Circular Economy, October 2022, Edge

Actions:

- *Investigate State and Federal grant opportunities.*

(f) Infrastructure, Plant and Equipment

Council has a suite of infrastructure asset management plans including the plant and equipment management plan to ensure sufficient and fit for purpose resources are identified and planned to support the collection of waste.

Actions:

- *Develop asset management as a whole.*
- *Identify infrastructure, plant and equipment required to maintain and enhance collection services.*

(g) Revenue Opportunities

Increased revenue can be utilised to fund waste related projects, to assist in further reducing waste to landfill and establishing circular economy related projects.

Actions:

- *Identify opportunities to increase revenue from Council's waste sites and operations. This could include currently unused land at the landfill site.*

(h) Align with Development Services

Development Services and Waste Management teams work together, so future residential areas have waste collection considered as part of the development process. A proactive approach will prevent reactionary measures needing to be taken.

Actions:

- *Develop strategies to ensure a proactive and consistent approach is adopted across Council departments.*

(i) Hard Waste

Hard waste collections, also referred to as bulky waste collections, involve the collection of specific items from residences that cannot be put into the kerbside collection system. This may include items such as televisions, furniture, and white goods. As part of Council's response to the Covid-19 crisis a trial on-call hard waste service was offered. This provided valuable information regarding the resource implications of providing this type of service. It should be noted that the WTS accepts a wide variety of items and materials, and that many items can be taken there for no cost. The viability of providing an ongoing bulky waste collection service will be investigated, pending available resources. It is proposed to commence the investigation in the 2025/2026 financial year, with the results being brought back to Council in January 2026.

Actions:

- *Continue to educate the public:*
 - *Around items accepted for free at the WTS.*
 - *Personal responsibility around purchasing choices and product end-of-life options.*
- *Investigate options for a user pays subsidised bulky waste kerbside collection service through a 3rd party provider:*
 - *Compare similar sized Councils.*
 - *Conduct analysis of predicted waste volumes and weights.*
 - *Investigate full cost implications and impact on the community.*
 - *Look at storage solutions for product collected (limited current space available for ReUse Market stock reserves).*
- *Continue ad hoc illegal dumping cleanup services and education.*

3.3.2 Stage 2 – Post Collection

(a) Pre-Sort

Consider engaging a consultant to undertake a feasibility study for the construction and operation of a materials recovery facility.

Actions:

- *Engage consultant to undertake a feasibility study for the construction and operation of a materials recovery facility.*
- *Investigate options for pre-sorting of waste prior to landfill.*
- *Conduct a short trial of pre-sorting waste prior to landfill, subject to EPA approval. Results could be used to develop a business case.*

(b) Waste Infrastructure, Plant and Equipment Requirements

Council has a suite of infrastructure asset management plans including the plant and equipment management plan to ensure sufficient and fit for purpose resources are identified and planned to support the collection of waste.

Actions:

- *Further develop plant and equipment asset management as a whole.*
- *Identify infrastructure, plant and equipment required to maintain and enhance post collection services.*

(c) Disposal Partnerships

Council has partnerships with local contractors for the “Receival and Disposal of Organise Waste” and “Receival of Recyclable Material”.

There are a number of other materials accepted at the WTS that are sent off to specific organisations for recycling.

Actions:

- *Continue to develop relationships with Recycling and Organics processing contractors.*

(d) ReUse Market

The Mount Gambier ReUse Market, located at 3 Eucalypt Drive, aims to reduce landfill by reusing and upcycling useful items salvaged or donated via the WTS. It is a place where you can get anything and everything second hand from building materials to bikes, sports gear, garden equipment, tools, bric-a-brac, furniture and much more.

Along with the WTS, the ReUse Market plays a pivotal role in assisting to deliver waste education to community groups, schools, and the broader community by saving useful second-hand items from the waste stream.

Since opening in 2018, the Mount Gambier ReUse Market has built several partnerships within the community, including volunteers, who play an active role assisting the operation of the market by sorting, recovering, upcycling, cleaning, and presenting items for sale.

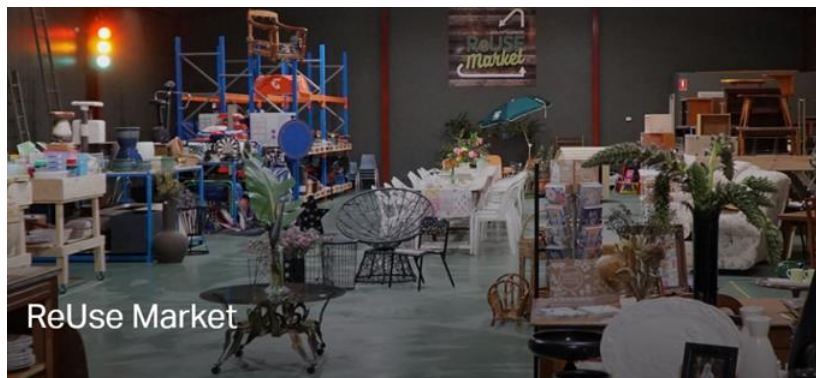
Opening twice per month, the ReUse Market is a popular destination for those seeking second-hand items in good condition that would otherwise

end up in landfill. In 2024/2025 the ReUse Market diverted 147.32 tonnes from landfill.

Upcoming open days are listed on the ReUse Market webpage www.mountgambier.sa.gov.au/reusemarket

Actions:

- *Infrastructure Asset Management Plans include larger undercover areas accommodating more products and increase weather protection for customers.*
- *Increase volunteer management program.*
- *Consider growth strategies ensuring they have economic benefit and increase landfill reduction.*
- *Source additional material for reuse away from landfill, liaise with industry, other councils, retirement villages, businesses, contractors etc.*
- *Investigate an on-call service to collect materials, consideration of resources, plant and equipment, safety, and economic benefit.*
- *Increase community engagement, education, and announcements on open days.*
- *Increase ReUse Market advocacy, manage waste responsibly and sustainably.*



3.3.3 Stage 3 – End of Life

(a) Caroline Landfill

Caroline Landfill is located on Vorwerk Road in the area of Caroline, near the Victorian border. It is the only landfill in the region licensed to receive putrescible waste.

All operations at Caroline Landfill are legislatively governed by the conditions set out in EPA 2504 license in conjunction with the approved LEMP.

In the 2024/2025 financial year it received over 27,000 tonnes of waste. Waste audits have indicated that up to 66% of the contents of Mount Gambier's landfill waste bins could have been composted or recycled, instead of being buried in landfill. Commencing operations in 1997, the

landfill has had five major upgrades with new cells being constructed in 2002, 2014, 2017, 2019 and construction of Cell 4 in 2024.

One of the major risks currently associated with the landfill is the management of leachate.

Cell 4A commenced receiving waste September 2024.

Actions:

- *Investigate alternate leachate management options.*
- *Maintain Landfill Environmental Management Plan (LEMP).*
- *Maintain Caroline Landfill Asset Management Plan and long-term financial modelling.*
- *Create cell optimisation plan.*
- *Landfill engineering skills and knowledge are required for the management of the site. This could be fulfilled through recruitment or engaging an external provider.*
- *Investigate software that can be utilised to accurately monitor compaction, leading to greater efficiencies.*
- *Investigate alternative energy options.*
- *Keep abreast of carbon accounting opportunities.*
- *Continue managing the landfill gas capture system with LMS.*
- *Be alert to emerging landfill mining and reclamation trends to investigate.*
- *Keep abreast of relevant policy changes e.g. the ACCU Scheme and Landfill Method review and its relation to landfill gas capture operations, as well as the EPA Waste to Resources Policy review.*

(b) Closure and Post Closure Management

A post closure strategy and management plan will be developed prior to closure and implemented from the date of closure certification which will allow for maintenance and monitoring of Caroline Landfill over approximately 25 years. A comprehensive description of post closure maintenance and monitoring requirements for Caroline Landfill will be provided within the Post Closure Plan to be prepared and approved by SA EPA.

The focus of the post closure strategy will be the management of potential environmental effects that may arise following the closure of Caroline Landfill.

Key elements of the conceptual closure and post closure strategies include:

- Development of a final landform that limits potential environmental effects and visual impact.
- Development of a landscaping strategy to improve the visual amenity and to provide a valuable end use.

- Maintenance and operation of an extensive landfill gas management system; and
- On-going monitoring for potential environmental effects and settlement for at least a post closure period of 25 years (to be reviewed with SA EPA based on monitoring results).

The key tasks required to facilitate closure of Caroline Landfill are listed below with detail of some specific tasks (e.g. cap construction) referenced to other parts of the LEMP. All elements required to secure closure of Caroline Landfill are described within the LEMP. SA EPA approval will be sought if there is a change to construction or operation of Caroline Landfill that may impact on closure procedures.

Actions:

- *Maintain post closure financial provision.*
- *Develop Post Closure Management Plan including:*
 - *Ensuring there are no adverse environmental impacts during and following closure of Caroline Landfill.*
 - *Limiting risk to public safety during and following closure of Caroline Landfill.*
 - *Limiting visual impacts of Caroline Landfill.*
 - *Ensuring that erosion, pest plant and vermin invasion is limited.*

Part 4: Action Plan

Key: Timeline

Short term: 1-2 years.

Medium term: 2-5 years

Long term: 5+ years

Resourcing

Current: Can be completed with current resources. "B" indicates the task gets completed as part of current business-as-usual activities. "S" indicates the task could be completed with current resources, but would need to be scheduled into current staff workloads.

Additional: Additional resources are required to complete this task. Amount listed if known, if not then listed as TBC.

Priority

High: These actions are critical to the success of waste and resource recovery operations.

Medium: These actions are important, but not as critical as high priority actions.

Low: These tasks are important but can be postponed without significant consequences.

Stage	Action	Timeline			Resourcing		Priority
		Short Term	Medium Term	Long Term	Current	Additional	
Stage 1 Collection	Kerbside Collection						
	Undertake route optimisation exercise to identify efficiencies and cost savings.	S			S		M
	Review additional plant requirements to cater for increase in collections, and as contingency to cover servicing and break downs.	S			S		M
	Keep abreast of relevant policy changes e.g. the EPA Waste to Resources Policy review and its potential impact on kerbside collection services.	S	M	L	B		H
	Investigate resources required for Council to pursue weekly FOGO collections, develop a strategy with timelines.	S			S		H
	Waste Transfer Station						
	Investigate the life and ongoing requirements of the existing weighbridge.	S			S		M
	Increase coverable areas to keep material handling out of elements and meet regulatory requirements.		M	L		A TBC	M
	Investigate further education opportunities.	S	M	L	B		L
	Review process, structure and resourcing options to reduce kerbside waste landfill.	S			S		M
	Increase engagement with charity organisations, maximising landfill reduction and increasing material via the Reuse Market.	S	M		S		L
	Investigate initiatives for further material handling, to reduce landfill with consideration of economics, volume of material, circular economy, education.	S	M	L	S		M
	Investigate software upgrade with the ability to provide reciprocated data to EPA and resource savings with consultation from iServices.	S	M		S		M
	Office extension to allow for regulatory reporting away from weighbridge noise.		M			A TBC	L

Stage	Action	Timeline			Resourcing		Priority
		Short Term	Medium Term	Long Term	Current	Additional	
	Recruit additional volunteers.		M		S		L
	Ensure staff understand the details and requirements of the EPA licence for the site.	S	M	L	B		H
	Test and trial material recovery initiatives.		M	L		A TBC	M
	Maintain a proactive culture of innovation.	S	M	L	B		H
	Aspire to deliver best practice service.	S	M	L	B		H
	Investigate potential to act as an incubator site for waste reduction initiatives.		M	L	S		L
	Investigate re-branding to "Materials Transfer Station".		M		S		L
	Increase education and promotional material via social media.	S	M	L	S		M
	Continue to evolve educational activities.	S	M	L	B		M
	Investigate feasibility for increased onsite polystyrene recycling options.		M	L	S		M
	Education and Awareness Programs						
	Further promote FOGO service and home compost equipment.	S	M	L	B		H
	Engage with schools and community organisations.	S	M	L	B		M
	Regional Partnerships						
	Allocate meeting dates to ensure catchups are held regularly.	S	M	L	B		M
	Circular Economy						
	Investigate State and Federal grant opportunities.	S			B		H
	Infrastructure, Plant and Equipment						
	Plan infrastructure, plant and equipment required to maintain and enhance collection services.	S	M	L	B		H
	Revenue Opportunities						
	Identify opportunities to increase revenue from Council's waste sites and operations. This could include currently unused land at the landfill site.	S	M	L	S		M
	Align with Development Services						
	Develop strategies to ensure a proactive and consistent approach is adopted across Council departments.	S	M	L	B		H

	Hard Waste					
	Continue to educate the public: - Around items accepted for free at the WTS. - Personal responsibility around purchasing choices and product end-of-life options.	S	M	L	B	H
	Investigate options for a user pays subsidised bulky waste kerbside collection service through a 3rd party provider: - Compare similar sized Councils. - Conduct analysis of predicted waste volumes and weights. - Investigate full cost implications and impact on the community. - Look at storage solutions for product collected (limited current space available for ReUse Market stock reserves).	S	M		S	H
	Continue ad hoc illegal dumping cleanup services and education.	S	M	L	B	H

Stage	Action	Timeline			Resourcing		Priority
		Short Term	Medium Term	Long Term	Current	Additional	
Stage 2 Post Collection	Pre-Sort						
	Engage consultant to undertake a feasibility study for the construction and operation of a materials recovery facility.	S	M			A TBC	M
	Investigate options for pre-sorting of waste before landfill.		M	L	S		M
	Conduct a short trial of pre-sorting waste prior to landfill, subject to EPA approval. Results could be used to develop a business case.	S	M			A TBC	M
	Waste Infrastructure, Plant and Equipment Requirements						
	Further develop plant and equipment asset management as a whole.	S	M		B		H
	Identify infrastructure, plant and equipment required to maintain and enhance post collection services.	S	M	L	B		H
	Disposal Partnerships						
	Continue to develop relationships with Recycling and Organics processing contractors.	S	M	L	B		H
	ReUse Market						
	Infrastructure Asset Management Plans include larger undercover areas accommodating more products and increase weather protection for customers.	S	M			A TBC	M
	Increase volunteer management program.	S	M		S		M
	Consider growth strategies ensuring they have economic benefit and increase landfill reduction.		M	L	S		M
	Source additional material for reuse away from landfill, liaise with industry, other councils, retirement villages, businesses, contractors etc.		M	L	S		M
	Investigate an on-call service to collect materials, consideration of resources, plant and equipment, safety, and economic benefit.	S	M		S		M
	Increase community engagement, education, and announcements on open days.	S	M		S		M
	Increase ReUse Market advocacy, manages waste responsibly, sustainably.	S	M		B		M

Stage	Action	Timeline			Resourcing		Priority
		Short Term	Medium Term	Long Term	Current	Additional	
Stage 3 End of Life	Caroline Landfill						
	Investigate alternate leachate management options.	S	M			A TBC	H
	Maintain Landfill Environmental Management Plan (LEMP).	S	M	L	B		H
	Maintain Caroline Landfill Asset Management Plan and long term financial modelling.	S	M	L	B		H
	Plan infrastructure, plant and equipment required to maintain and enhance landfill services.	S	M	L	B		H
	Create cell optimisation plan.	S	M			A TBC	H
	Landfill engineering skills and knowledge are required for the management of the site. This could be fulfilled through recruitment, or engaging an external provider.		M	L		A TBC	M
	Investigate software that can be utilised for understanding compaction and leading to greater efficiencies.	S	M		S		M
	Investigate alternative energy options.			L		A TBC	L
	Keep abreast of carbon accounting opportunities.		M	L	B		M
	Continue managing the landfill gas capture system with LMS.	S	M	L	B		H
	Be alert to emerging landfill mining and reclamation trends to investigate.			L	B		L
	Keep abreast of relevant policy changes e.g. the ACCU Scheme and Landfill Method review and its relation to landfill gas capture operations, as well as the EPA Waste to Resources Policy review.	S	M	L	B		H
	Closure and Post Closure Management						
	Maintain post closure financial provision.				B		H
	Develop Post Closure Management Plan including: - Ensuring there are no adverse environmental impacts during and following closure of Caroline Landfill. - Limiting risk to public safety during and following closure of Caroline Landfill. - Limiting visual impacts of Caroline Landfill. - Ensuring that erosion, pest plant and vermin invasion is limited.			L		A TBC	M

Part 5: Risk Plan

City of Mount Gambier has conducted a risk assessment process to identify key risks that could affect the successful execution of the Waste and Resource Recovery Master Plan. Mitigation strategies have also been identified and have informed the actions for the plan.

Risk	Potential Impact	Mitigation Strategy	Likelihood of risk eventuating with mitigation strategy
Legislative Changes	Federal &/or State policy setting cost shifting to Councils. Landfill operators and all waste industry stakeholders.	Ensure waste operations are financially sustainable, including a contingency. Ensure parliamentarians, policy makers and the LGA are aware of the current state of waste, and any implications of changes.	Possible
Climate Change	Extreme weather events impacting operations.	Assess risks from extreme weather events. Implement mitigation strategies.	Unlikely
Funding	Grants, budgeting Revenue capping	Maintain waste financial modelling to ensure revenue covers capital and operational expenses.	Unlikely
Political	Short term political positioning that has long term detrimental impact to daily operational and long term capital budgeting/costs.	Ensure decision makers are aware of the current state of waste, and any implications of changes.	Unlikely
Planning & Development	Access considerations in development approvals	Identify any development requirements well ahead of time. Liaise early with planning authorities	Unlikely

		to ensure all required processes are followed.	
Sustainable business modelling with the sector	Commodity pricing Skills shortages Environmental Engineers Third party service providers	Identify any operational and capital requirements well ahead of time. Ensure all required processes are followed.	Unlikely

Part 6: Glossary and Reference Documents

Glossary	
Term/Acronym	Definition
Artificial Intelligence (AI)	The theory and development of computer systems able to perform tasks normally requiring human intelligence.
Circular Economy	A model of production and consumption which involves sharing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.
EPA	Environment Protection Authority
FOGO	Food Organics Garden Organics
Landfill	The process of burying large amounts of waste material.
Master Plan	Refers to this “Waste and Resource Recovery Master Plan”.
MGB	Mobile Garbage Bin
Route Optimisation	The process of determining the most efficient route for a series of stops.
Sustainable	Being able to continue over a period of time (generally in reference to either environmentally, socially and economically).
LEMP	Landfill Environmental Management Plan

Reference Documents
Waste and Resource Recovery Strategy
Alternative Collection Frequencies Report
Waste Infrastructure, Plant and Equipment Requirements
Caroline Landfill – Cell Plan
Cell 3C Capping Plan
Financial Modelling Caroline Landfill
Leachate Plan
LEMP Landfill Environmental Management Plan