

SOUTH GIPPSLAND SHIRE COUNCIL

# Waste and Resource Recovery Plan 2024 to 2034



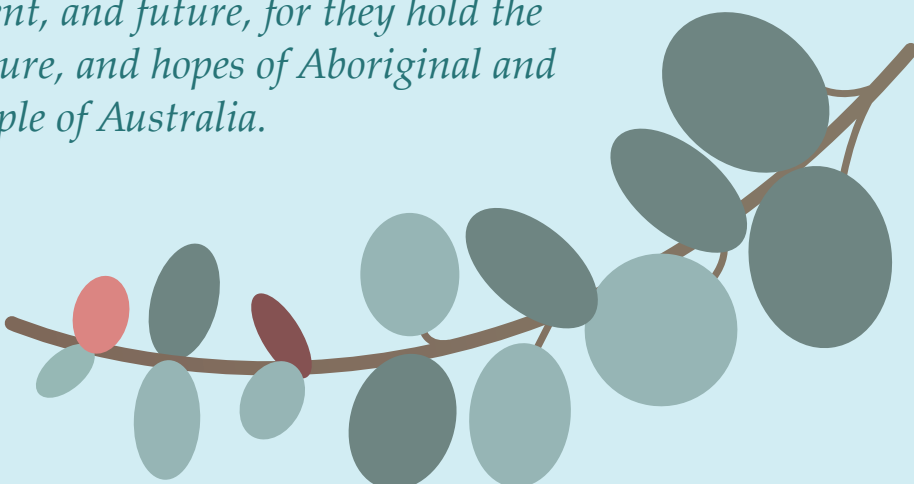
*South Gippsland*  
Shire Council

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## *Acknowledgment of Country*

*We acknowledge the Bunurong and Gunaikurnai people as the Traditional Custodians of South Gippsland and pay respect to their Elders, past, present, and future, for they hold the memories, traditions, culture, and hopes of Aboriginal and Torres Strait Islander people of Australia.*



# Glossary

Term	Definition
Airspace (landfill)	Available volume or capacity at a landfill for filling with waste.
Alternative Waste Treatment	Range of innovative processes and technologies designed to divert waste materials from traditional landfill disposal. These methods aim to recover, recycle or otherwise reduce the environmental impact of waste materials. These technologies can include composting, anaerobic digestion, waste-to-energy facilities, and mechanical biological treatment plants, among others.
Anaerobic Digestion	A biological process that breaks down organic materials such as food waste and sewage, in the absence of oxygen. Microorganisms convert these materials into biogas, primarily methane and carbon dioxide, along with nutrient-rich digestate. This process generates renewable energy and reduces waste, contributing to sustainable waste management and energy production.
Asset Replacement Planning	Process of preparing for the replacement of critical assets as they near the end of their operational life to ensure continued functionality and service continuity.
Circular Economy	Economic model aimed at reducing waste and promoting the continual use of resources through recycling, reusing and repurposing.
Circular Economy Goals	Objectives aimed at promoting a circular economy by reducing waste and promoting recycling.
Commingled Recycling	Mixed recycling as collected in yellow-lidded kerbside bins.
Community Engagement	Involving the public in decision-making processes and encouraging participation in waste management efforts.
Diversion Rates	Percentage of waste diverted from landfill through recycling and other sustainable practices.
FOGO Program	Food Organics and Garden Organics Program, designed to divert organic waste from landfills through composting and recycling.
Gate Fee	Fee charged for waste disposal at a landfill or Transfer Station.
GO	Garden Organics.
Hard Waste Collection	Collection of larger household items that cannot be disposed of through regular waste bins.
Sustainable Procurement Policies	Guidelines for purchasing products and services that prioritise circular economy principles, sustainability and environmental considerations.
Public Awareness Campaigns	Initiatives to inform and educate the public about waste reduction, recycling and responsible consumption.

<b>Term</b>	<b>Definition</b>
Recycling Infrastructure	Facilities, bins and systems designed to efficiently collect and process recyclable materials.
Source Separation	Practice of separating different types of waste at the point of their generation (prior to collection) for better recycling and resource recovery.
South Gippsland Shire Council	Local government authority responsible for waste management in the South Gippsland region.
Waste Audits	Analysis of waste composition to understand its makeup and identify opportunities for better waste management activities, services or education programs.
Waste Minimisation	The practice of reducing the amount of waste generated in the first place either through improved product design or manufacturing practices, reduced packaging of goods and the conscious avoidance of unnecessary purchasing or over consumption.
Waste and Resource Recovery Plan	Comprehensive strategy outlining how waste will be managed, recycling and disposed of within a specific region.
Waste-to-Energy Facility	A facility that processes non-recyclable waste materials to produce energy.

# Executive Summary

South Gippsland Shire Council's Waste and Resource Recovery Plan 2024 to 2034 heralds a new era in waste management, underpinned by a commitment to sustainability, legislative compliance and community welfare. This Plan succeeds the previous strategy, concluding in 2021, and sets forth a 10-year roadmap to significantly enhance South Gippsland's waste management practices.

## Strategic Drivers and Legislative Mandates

A key driver for the Waste and Resource Recovery Plan is the legislated overhaul of kerbside waste and recycling collection systems, incorporating universal Food Organics and Garden Organics (FOGO) collections and separate glass collection services. The Plan aligns with the Australian Government's National Waste Policy's twin objectives: achieving a 10 per cent reduction in waste generation per capita, and attaining an overall resource recovery rate of 80 per cent within the next five years.

## Circular Economy Principles

A circular economy is a model of production and consumption that involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In the context of waste management, diverting material from



landfill and recovering material for recycling from kerbside bins, public recycling bins and Transfer Stations supports these objectives. The planned introduction of a Food Organics and Garden Organics service and potential construction of a commercial transfer station will achieve significant outcomes in terms of supporting circular economy principles.

## Environmental Goals and Infrastructure Upgrades

This Plan responds to the urgent need to replace the landfill asset before the Koonwarra landfill airspace is exhausted in the next decade. To this end, the Plan includes actions to investigate significant infrastructure upgrades, with a strong emphasis on extending the landfill's operational life while exploring alternative waste processing technologies that will reduce reliance on landfill.

## Implementation Plan

The detailed Implementation Plan addresses the new kerbside system's introduction, the establishment of Food Organics and Garden Organics and separate glass collections, and strategic infrastructure development. The [table on page 28](#) summarises these initiatives, providing a clear timeline and designated responsibilities.

## Annual Action Plans

Annual Action Plans are delineated in table form, highlighting specific targets and milestones for each year of the Plan. These Action Plans will facilitate the monitoring of progress against objectives and ensure that the Plan remains dynamic and responsive to evolving challenges.

## Performance Monitoring and Review

The Plan incorporates rigorous performance monitoring mechanisms, including regular waste audits to manage contractor performance, identify opportunities for improvement and gauge progress towards Australian and Victorian Government waste policy goals.

## Conclusion and Outlook

In conclusion, the South Gippsland Shire Council Waste and Resource Recovery Plan sets forth a comprehensive and forward-thinking approach to waste management. It emphasises innovation, sustainability and community involvement, with the ultimate goal of meeting and exceeding Australian Government waste reduction and recovery targets. The Plan is designed to be adaptive, allowing for continuous improvement and alignment with best practices in waste management and environmental stewardship.

# Introduction

South Gippsland Shire Council is located in south-eastern Victoria, covers a diverse region of 3,304 square kilometres, and is home to approximately 31,000 people living in three distinctive wards: Coastal Promontory, Strzelecki and Tarwin Valley. With a rich history, South Gippsland Shire is a tapestry of rural, residential and tourist areas bordered by Cardinia and Baw Baw Shires to the north, Latrobe City and Wellington Shire to the east, Bass Strait to the south and Bass Coast Shire to the west.

The original inhabitants of the South Gippsland area were the Bunurong and Gunaikurnai indigenous people.

The area boasts a varied demographic, from the agriculturally centred townships of Leongatha and Korumburra, to the tourist hot spots like Venus Bay all contributing to a vibrant community. With household size ranging from 2.02 to 2.52 people, the Waste and Resource Recovery Plan aims to address the environmental and logistical nuances of waste management in this multifaceted region.

Committed to sustainable practices, the Waste and Resource Recovery Plan endeavours to balance practicality and affordability with environmental sensibilities, enhancing waste services, diversion and education. By integrating cutting-edge solutions and fostering responsible waste habits, South Gippsland Shire Council is dedicated to minimising waste impact and maximising resource value, ensuring a harmonious coexistence with the environment for generations to come.



# Background and Planned Development

South Gippsland Shire, renowned for its natural beauty and diverse landscapes, faces unique challenges in waste management and resource recovery. As the region continues to grow and evolve, the effective management of waste becomes increasingly critical to preserving our environment and enhancing the quality of life for our community.

Historically, waste management in South Gippsland has focused on efficient usage of landfill airspace, maximising the recovery of recyclable materials at Transfer Stations and the collection of residual waste, commingled recycling and garden organics from kerbside. However, in recent years, there has been a growing recognition of the need to shift towards even more sustainable practices. This is not only in response to environmental concerns but also due to changing regulatory frameworks and community expectations.

In preparation for the new Waste and Resource Recovery Plan 2024 to 2034, an analysis of the previous Waste Management Strategy, which concluded in 2021, was conducted. This examination has been instrumental in shaping the forthcoming Plan, ensuring continuity and addressing previously identified gaps. A summary of the analysis, detailing key findings and informing the objectives of the new Waste and Resource Recovery Plan can be found in [Appendix A](#).



The Victorian Government's policy reforms, particularly around waste and recycling, have been pivotal in shaping our approach. Initiatives such as the introduction by some councils of a four-bin kerbside collection system, including separate bins for glass and Food Organics and Garden Organics, are examples of these reforms in action. These changes have necessitated a strategic rethink of how waste and resources are managed in the South Gippsland Shire.

Furthermore, community feedback has indicated a strong desire for more sustainable waste practices. Residents and businesses are increasingly aware of the impacts of waste on the environment and are seeking ways to reduce, reuse and recycle.



South Gippsland Shire Council has been proactive in addressing these challenges. Past efforts and ongoing initiatives, such as the Gippswide Kerbside Collaborative Waste Tendering Project, kerbside collection audits and upgrades to Transfer Station infrastructure, have laid a solid foundation for the current Waste and Resource Recovery Plan. This Plan aims to build on these efforts, aligning with Victorian Government policies and reflecting the community's values and needs.

This background sets the stage for a comprehensive and forward-looking Plan that addresses waste reduction, resource recovery, community engagement and environmental protection. The Waste and Resource Recovery Plan is an essential step towards a more sustainable and resilient South Gippsland, ensuring that the region remains a beautiful and vibrant place to live, work and visit.

# Strategic and Policy Context

The Waste and Resource Recovery Plan is formulated within a comprehensive strategic and policy context that encompasses local, state and national perspectives. This context provides the framework within which the Plan operates, ensuring alignment with broader goals and compliance with regulatory requirements.

## Federal

The National Waste Policy Action Plan sets ambitious targets to improve waste management and resource recovery across the country. Two relevant targets are:

- Reducing waste generation per person by 10 per cent by 2030; and
- Achieving an 80 per cent resource recovery rate from all waste streams by 2030.

For local councils like ours, this means we need to significantly increase our current recovery rate, potentially going from 50 per cent to 80 per cent in just seven years.

## State

To support these national targets, the Victorian Government released the *Recycling Victoria – A New Economy Policy* in 2018, followed by the *Circular Economy (Waste Reduction and Recycling) Act 2021*. The centrepiece of these initiatives is the kerbside reform, which mandates four services:

- General Waste;
- Food Organics and Green Organics (by 2030);
- Recycling (excluding glass); and
- Glass (by 2027).

It is a requirement that every resident must have access to these waste options. For residences that are currently serviced or could be viably serviced via kerbside collection, access to kerbside Food Organics and Green Organics and glass, are made mandatory, leaving no room for discussion. For residences that are not on a kerbside service route, drop off locations will need to be established. South Gippsland Shire Council is currently testing with Recycling Victoria whether the extensive South Gippsland RRC Network can facilitate drop-off for glass and is considered as providing sufficient access to a glass service for all residents.

These reforms are essential to drive a more sustainable and circular economy, promoting resource recovery and reducing waste going to landfill. South Gippsland Shire Council is committed to aligning with these policies and working towards achieving these targets. This means implementing changes to waste collection and management practices, exploring innovative solutions and engaging with the community to encourage responsible waste disposal and recycling habits.

## Local

Within South Gippsland Shire Council's overarching *Council Plan 2022 to 2026*, one of the six fundamental objectives is dedicated to '*Protecting and Enhancing Our Environment*'. Under this objective, there are 10 priorities including the focus on empowering our community through education and information to improve their waste management; and leading by example, developing internal practices and policies to reduce our carbon footprint as an organisation and encouraging innovative industries.

South Gippsland Shire Council aims to actively engage the community in environmental awareness, implement internal sustainability practices and enhance overall waste management efforts to create a more resilient and ecologically conscious region.

The South Gippsland Environmental Sustainability Strategy Framework 2021 is structured around a clear vision that emphasises the region's appreciation for its local community, flora, fauna and ecosystems. The Waste and Resource Recovery Plan envisions collaborative engagement with the community to preserve and enrich the unique environment of the area. The framework comprises three distinct areas, the:

- Climate Action Plan;
- Sustainable Land Use Plan; and
- Waste and Resource Recovery Plan.

Each area focuses on specific aspects of environmental sustainability, aiming to address climate change impacts, optimise land use practices and enhance waste management and resource recovery efforts.

In the Climate Change section, it is noted that the greenhouse gas targets have not been met, primarily due to landfill emissions, which represent more than double the emissions of all other Council services combined including lighting, facilities, plant and fleet emissions. This has brought attention to the need for enhanced strategies in waste management and resource recovery to reduce the environmental impact of landfilling.

In the Waste and Resource Recovery Plan section, the new Waste and Resource Recovery Plan will prioritise initiatives and actions aimed at increasing material recovery for recycling while reducing waste disposal to landfills. The Plan's development will be driven by the influence of new legislation at both the State and Federal level.

# Vision and Objectives

## Vision

*"Achieving sustainable waste management and resource recovery through service excellence, environmental and regulatory compliance and implementation of circular economy principles."*

Our vision for waste management and resource recovery in South Gippsland is centred around optimising service provision while upholding environmental compliance, embracing circular economy principles and accommodating projected population increases and economic growth. We are dedicated to providing high-quality services to residents, ratepayers and businesses while ensuring financial sustainability and preserving the longevity of the Koonwarra Landfill.

## Key Components of the Vision



### Service Excellence

We are committed to optimising service provision and meeting the needs of our community. By continuously improving our waste management services, we aim to enhance customer satisfaction, efficiency and convenience for residents, ratepayers and businesses in South Gippsland.



### Environmental and Regulatory Compliance

We prioritise strict adherence to environmental, occupational health and safety and other applicable legislation. Our waste management practices are designed to minimise environmental impact, protect natural resources and promote sustainable outcomes. By complying with regulations, we demonstrate our commitment to environmental stewardship.



### Circular Economy Principles

Our vision is aligned with Victorian Government policies promoting circular economy targets and mandates. We actively support the transition to a circular economy by implementing innovative approaches to waste management, emphasising waste reduction, reuse, recycling and resource recovery.

Through these practices, we aim to minimise waste generation, maximise the value extracted from waste materials and create a sustainable and circular waste management system.



### Financial Sustainability

We acknowledge the significance of maintaining financial sustainability while also alleviating the impact on ratepayers. Our approach to waste service charges is designed to be transparent, guaranteeing that the cost of waste management remains fair and justifiable. Where feasible, we aim to provide services based on a user-pays principle and our overarching goal is to achieve long-term cost neutrality across all services. Through the optimisation of our operational processes and the pursuit of cost-effective strategies, our aim is to establish a waste management framework that is financially sustainable in the long run.



### Allowing for Growth

The Waste and Resource Recovery Plan considers projected population increases and economic growth in South Gippsland. We are committed to managing waste and materials recovery in a manner that aligns with sustainable outcomes. By adopting innovative technologies, infrastructure and practices, we aim to accommodate growth while minimising waste generation, promoting resource recovery and protecting the environment.



### Longevity of Koonwarra Landfill

Conserving airspace at the Koonwarra Landfill is a key priority. We are dedicated to employing sustainable waste management strategies that optimise landfill space utilisation, extending its longevity and ensuring its necessary use for future waste disposal needs. This approach safeguards the environment and supports responsible waste management practices.

By embracing service excellence, environmental compliance and circular economy principles, we strive to achieve sustainable waste management and resource recovery in South Gippsland. Our vision sets the foundation for a resilient and environmentally conscious community that thrives in harmony with the principles of a circular economy. Together, we can build a sustainable future for generations to come.



# Current Situation Analysis

## Current Waste Services

The table below shows services that are currently provided and planned new service arrangements.

Service	Current	Future Services
Garbage (red lid)	Weekly 120 litre bin. Weekly 240 litre bin (commercial only).	Fortnightly 120 litre bin – potentially weekly from Christmas to end of January (to be confirmed). Fortnightly 240 litre bin (commercial and residential option).
Recycling (yellow lid)	Fortnightly 240 litre bin.	Fortnightly 240 litre bin – potentially weekly from Christmas to end of January (to be confirmed).
Organics (lime green lid)	Fortnightly Universal Green Organics 240 litre bin.	Weekly Universal Food Organics and Green Organics <sup>1</sup> 240 litre bin (2026).
Venus Bay	6-month universal or 12-month optional service.	Services will be aligned with the rest of the Shire (2026).
Walkerville (Prom Views Estate)	Fully optional 6- or 12-month service.	Services will be aligned with the rest of the Shire (2026).
Hard Waste	One resident paid collection per year (subsidised by Council for Pension Card Holders).	No change to current service.
Concessions	Limited free waste disposal for fundraising and community groups.	No change to current service.
Free Garden Organics Service	November and December at all Transfer Stations.	No change to current service.
Glass (purple lid)	No service.	Glass drop off at six Transfer Stations and/or monthly Glass bin 120 litre (2026)*

\*Currently, it remains uncertain whether in the case of South Gippsland Shire Council the drop off option for separated glass recycling at Transfer Stations satisfies the applicable regulations.

<sup>1</sup> For kerbside serviced properties.

## Waste and Recycling Service Performance

The performance of waste and recycling services in South Gippsland has not been formally audited since 2019. These services are crucial for managing the region's waste and ensuring environmental sustainability. The last reports indicated that the systems in place were effectively managing the various waste streams. However, it is essential to regularly monitor and audit these services to identify areas for improvement, ensure compliance with waste management policies and enhance overall efficiency. Regular audits and performance assessments help with maintaining the efficacy of waste services and support the development of strategies to increase resource recovery rates.

### Kerbside Diversion Rate

The kerbside diversion rate refers to the percentage of kerbside-collected material that is not sent to landfill. The Recycling Victoria data hub showcases South Gippsland Shire Council's progressive waste management over 15 years (2005 to 2020). Initially, rates fluctuated around 30 per cent, with a two bin system (i.e. only garbage and recycling). A significant upturn occurred in 2015/16, climbing to approximately 50 per cent after the introduction of a kerbside Green Organics collection service. Details of historic diversion rates are in Figure One in [Appendix E](#). Without further changes to kerbside collection services, significant increases to the current diversion rate are unlikely.

### Recycling Contamination

Recycling contamination, which refers to the presence of non-recyclable materials within the recycling stream, is a critical issue that affects the efficiency of recycling processes. The figures are based on 2018 and 2019 waste audits. Since it is data based on only two audits with relatively small sample sizes, the rates can only be indicative.

In 2018, South Gippsland Shire Council's June audit measured a contamination rate of 12.8 per cent, which rose to 15.2 per cent in the March 2019 audit. This increase underscores the need for improved community education on correct recycling practices and stricter monitoring to reduce contamination levels. Addressing this challenge is vital to maintain the integrity of the recycling stream, ensure the viability of recycling facilities and contribute to the environmental goal of reducing waste. There are also increased costs associated with sorting or disposing of contaminated recycling, so implementing effective measures to reduce contamination is very important.

## Garbage Bin Composition

Since the introduction of the kerbside Green Organics collection service in 2015/16, the percentage of Green Organics material in kerbside garbage bins has dropped significantly to about 2 to 6 per cent of the bin contents by weight. There continues to be a significant portion of the kerbside garbage bin material that is organic food waste. Pre-COVID audits revealed that approximately 40 per cent (by weight) of material collected through the kerbside garbage bins was organic food material that could be diverted from landfill through the introduction of a Food Organics and Green Organics service.

2018 and 2019 audits also indicated that on average 16 per cent (by weight) of the kerbside garbage bin contents was recyclable material that could have avoided landfill by being placed in the recycling bin, or now, through dropping off at a Container Deposit Scheme collection point. Future audits will continue to monitor this and direct educational efforts to target identified problems.

Further detail is provided in [Appendix E](#).

## Household Waste Generation

Over the last five years, household waste volumes (as recorded by the contractor) have remained fairly consistent, averaging 8.77 kilograms per weekly collection, recycling has averaged 4.83 kilograms per week, and green organics waste consistently exceeding others at 10.83 kilograms per week. Despite COVID-19 lockdowns during 2020 and 2021, the average waste generation figures did not show a noticeable change.

Further detail is provided in [Appendix E](#).





## Transfer Stations

South Gippsland Shire Council maintains six Transfer Stations (resource recovery centres) throughout the municipality as shown in the table on the next page. These facilities provided drop off services for waste and recycling for all residents and business operators in the South Gippsland Shire. Each of the Transfer Stations are registered with the Environmental Protection Authority and are operated in accordance with stipulated conditions of the registrations. Many residents who reside in rural locations rely on these sites as their primary waste and recycling disposal option.

The full cost of operating Transfer Stations is not recovered from disposal fee income, with a significant shortfall funded from the general rates. This funding strategy is based on keeping disposal rates at more affordable levels.



## Transfer Station Efficiency

The table on the next page presents information about the opening hours, throughput, total annual operating hours and efficiency in tonnes processed per hour for Transfer Stations in the municipality. The Koonwarra Transfer Station is the only site open seven days per week. All other sites operate on restricted hours and days.

The throughput in 2023 varies among these Transfer Stations, with the Koonwarra Transfer Station handling the most material. This is to be expected as it services Leongatha and surrounding towns such as Meeniyan and Koonwarra. Conversely, the Walkerville Transfer Station has the lowest annual operational hours, and has the lowest throughput in tonnes processed per hour. This is largely due to the lack of commercial activity in the vicinity of the site and the seasonal nature of many residents in the area. Despite the lower throughput compared to other Transfer Stations, the Walkerville Transfer Station provides a service to a considerable geographic area of the Shire.

When considering all Transfer Stations collectively, the average efficiency stands at 1.39 tonnes of material (includes all materials entering the site) per hour per facility. This data offers valuable insights into the operational performance of these facilities, aiding in decisions related to resource allocation and waste management improvements across the region.

Facility	Opening Hours	Throughput in Tonnes (2023)	Total Hours Open (hours/year)	Tonnes per hour
Foster Transfer Station	Tuesday, Thursday, Saturday and Sunday: 12.00pm to 4.00pm.	1,318	832	1.58
Koonwarra Transfer Station	Monday to Friday: 8.00am to 4.00pm. Saturday and Sunday: 10.00am to 4.00pm.	3,712	2,704	1.37
Korumburra Transfer Station	Monday and Thursday: 1.00pm to 4.00pm. Tuesday and Friday: 9.00am to 12.00pm. Saturday and Sunday: 12.00pm to 4.00pm.	1,852	1,144	1.62
Mirboo North Transfer Station	Wednesday and Friday: 1.00pm to 5.00pm. Sunday: 10.00am to 4.00pm.	1,038	728	1.43
Venus Bay Transfer Station	Monday to Friday: 9.00am to 12.00pm. Saturday and Sunday: 9.00am to 3.30pm. (Plus seasonal hours)	1,422	1,002	1.42
Walkerville Transfer Station	Monday and Sunday: 1.00pm to 4.00pm. Wednesday and Saturday: 9.00am to 12.00pm.	470	624	0.75
<b>Total</b>	<b>135 hours per week</b>	<b>9,812</b>	<b>7,034</b>	<b>1.39</b>

## Transfer Station Operation and Service Coverage

For waste services, numerous rural residents depend on the Transfer Stations as their sole waste disposal and recycling service. To oversee the operation of these Transfer Stations, South Gippsland Shire Council has enlisted the services of a contractor who is responsible for their management and daily operation. South Gippsland Shire Council oversees and ensures that these Transfer Stations are well-maintained, easily accessible and compliant with all pertinent regulations. This strategic positioning guarantees that almost all communities within the municipality have access to critical waste management facilities with 20 kilometres, as depicted below.



## Transfer Station Diversion from Landfill

Overall, the six Transfer Stations achieved a commendable average diversion rate of 75 per cent, showing a robust commitment to waste diversion and environmental sustainability. It's important to note that individual diversion rates are substantially influenced by the composition of incoming materials. The diversion figures show high sorting compliance and adequate site supervision, contributing to efficient recycling and waste diversion practices.

It should be noted that the recorded weights of waste materials (all materials managed on site) were obtained during outgoing processes. For garden waste, the estimation was based on incoming volumes, assuming an average material density of 0.25 tonnes per metre<sup>3</sup> (data sourced from South Gippsland Shire Council records). Several small recycling categories where we do not have weight data, but volumes are relatively low are not included (e.g. motor oil, bricks/concrete and mattresses).

Further details provided in [Appendix E](#).

### **Green Waste Amnesty**

South Gippsland Shire Council offers a Green Waste Amnesty during the months of November and December annually, during which no fees are levied for garden waste disposal at Transfer Stations. The primary aim of this service is to motivate residents to minimise fuel build up on their properties ahead of the high Fire Danger Period, thereby aiding in risk reduction during the bushfire season. The Green Waste Amnesty is very well utilised by the community, with approximately two thirds of the annual green waste received at Transfer Stations being received during the amnesty period.

### **Community Satisfaction**

The waste management sector in the South Gippsland Shire has seen varied performance in the annual Community Satisfaction Survey from 2012 to 2023. A significant dip in satisfaction to a low of 33 in 2019 was likely influenced by global recycling market issues. Since then, satisfaction rebounded to 53 by 2023, reflecting positive changes in waste management practices and community engagement.

The 2022 Community Satisfaction Survey ranks waste management as South Gippsland Shire Council's strongest area, with a score of 63. However, satisfaction varies by age, with the 50 to 64 age group less content compared to those 65 plus. The Strzelecki Ward and the 35 to 49 age group showed notable satisfaction gains, suggesting effective targeted measures.

Despite past challenges, recent improvements signal South Gippsland Shire Council's adaptability and commitment to addressing community needs. The variation in satisfaction among age groups offers an opportunity to fine-tune services and/or educational activities. South Gippsland Shire Council's focus on continual improvement and responding to feedback is evident, and ongoing efforts to cater to the diverse community will be key to sustaining high satisfaction levels in waste management services.

## Koonwarra Landfill

The Koonwarra Landfill is a crucial waste disposal facility in South Gippsland, with approximately eight to 10 years of remaining airspace. It plays a vital role in managing the community's waste in a cost-effective manner. Planning for its replacement is essential within this 10-year Plan, considering changing waste dynamics.

The Koonwarra Landfill receives between 17,000 and 19,000 tonnes of waste annually. A detailed breakdown of the waste categories received are provided in [Appendix E](#). Approximately two thirds of the waste received are from the private sector, with the remaining municipal waste coming from the kerbside garbage collection, litter bin operations and other South Gippsland Shire Council operations. Notably, there was a decrease in Municipal Solid Waste and an increase in Commercial and Industrial Waste. This shift is due to the Environment Protection Authority's reclassification of waste from Transfer Stations as Commercial and Industrial, and was not an actual drop in waste quantities. Commercial waste volumes can fluctuate as businesses seek cheaper landfill options or, major construction or demolition projects are undertaken in the area.

The COVID-19 years disrupted the declining waste trend, with increased municipal waste generation. Furthermore, a spike in Construction and Demolition waste in 2020/21 is attributed to government incentives for the building sector.



## Landfill Finances

The financial management of the active landfill is designed to be sustainable. Through the yearly budget process, the operational costs for the landfill are adjusted, based on previous years operational expenditure and known cost changes, such as the Victorian Government's Waste Levy. Analysis of historical data reveals that kerbside collected Municipal Solid Waste accounts for roughly 24 per cent of the total landfill volume. This proportion of landfill costs is recovered via the Garbage Charge on properties receiving a kerbside collection.

The remaining costs, representing 76 per cent of total waste, are covered by waste disposal fees. This method ensures a fair and responsible allocation of costs across the community.

Operational revenues and expenses have shown a steady increase over time, reflecting the growing environmental and Waste Levy costs, and the need to adjust gate fees to sustain operations.

Previously, South Gippsland Shire Council would commission new landfill cells every five years, but due to the Environment Protection Authority regulations, we have shifted to a staged cell development strategy. Over the next decade, we anticipate approximately \$8 million in capital expenditure, which includes the ongoing construction of Cell 5 and the subsequent capping and rehabilitation of Cells 4 and 5.

Landfill development has historically been financed through retained earnings, consistent with South Gippsland Shire Council's policy of full cost recovery. The financial model requires earnings to finance planned capital expenditures. It is important to note that while these earnings are earmarked for capital expenditure (CAPEX), they do not cover future asset replacement.

### **Closed Landfills Aftercare**

South Gippsland Shire Council has completed the closure and rehabilitation of two landfills within the municipality – the former Koonwarra Landfill, and the Foster Landfill. Post-closure, these sites have transitioned into the aftercare phase, with the revocation of the Environment Protection Authority-issued Pollution Abatement Notices, now overseen under the Environment Protection Authority's General Environmental Duty Framework. Ongoing monitoring and maintenance will ensure these sites remain environmentally secure into the future.

The aftercare costs, which encompass site maintenance and environmental monitoring, had been stable until the 2020/21 financial year. An increase in expenses was observed due to enhanced Environment Protection Authority requirements. These costs are anticipated to decrease from the 2024/25 financial year as the repealed Pollution Abatement Notices reduce some of the Environment Protection Authority's stipulations.

Budget allocations will continue to support critical aftercare activities, including groundwater monitoring, maintaining site security, managing gas emissions, controlling weeds and implementing erosion control measures.

South Gippsland Shire Council's adherence to the General Environmental Duty represents a commitment to responsible management of the landfill's post-closure, embodying its dedication to sustainable environmental stewardship and safeguarding the community and local ecosystems.

## Greenhouse Gas Emissions from Landfills

Landfill operations (both past and present) are South Gippsland Shire Council's largest source of greenhouse gas emissions. To minimise impacts, both closed landfills (Foster and the former Koonwarra Landfill) were rehabilitated soon after their closure in the early- to mid-2000s. The active Koonwarra Landfill has been capped and rehabilitated as landfill cells reach capacity. Rehabilitated areas have a landfill gas collection system, which feeds collected gas into a flare to burn off the environmentally-harmful methane. The relatively small size and limited electrical infrastructure on the site make power generation unviable. In the future, the introduction of a kerbside Food Organics and Green Organics service will reduce greenhouse gas emissions attributable to the landfill through the reduction of organic waste being landfilled. Further data on the estimated greenhouse gas emissions from South Gippsland Shire Council's landfill facilities is provided in [Appendix E](#).

## Landfill Asset Replacement

The Koonwarra Landfill has an expected lifespan of eight to 10 years. Due to Environment Protection Authority regulation changes, it is very unlikely that approval to extend the Koonwarra Landfill, or to construct a new landfill in South Gippsland would be able to be obtained. Accordingly, the direction has shifted to focusing on innovative and sustainable waste management solutions that align with the legislation, contemporary environmental standards and community expectations.

The potential establishment of a Commercial Waste Transfer Station presents a sustainable alternative to traditional landfill asset replacement. This facility would centralise the collection of residual waste from kerbside services, Transfer Stations and commercial sources, enabling consolidated shipment to designated disposal sites. Such a project will require a substantial initial investment, but should have an operational life expectancy of at least 30 years, thereby serving South Gippsland Shire Council, residents and industrial waste producers efficiently.

Effective asset replacement planning is crucial for the lifecycle management of critical infrastructure. This proactive process involves strategic planning for the replacement of assets nearing the end of their useful life. It is essential for maintaining consistent service delivery and avoiding service interruptions. Anticipating the need for asset replacement allows for well-planned resource allocation, funding procurement and smooth operational transition. Such foresight in asset management ensures service continuity, averts unforeseen failures, and mitigates financial and operational risks associated with abrupt asset obsolescence.

## Service Options and Waste Charges

Waste management costs in Victoria have been consistently increasing above the Consumer Price Index over the past decade. In response, South Gippsland Shire Council has responsibly increased established waste management service charges to fund the costs of providing waste management and recycling collection services. South Gippsland Shire Council currently has varied garbage charges for different towns based on historical service arrangements and variations introduced during the term of the current kerbside collection contract. As new contracts are introduced and the method of providing kerbside waste and recycling collection services is standardised in the coming years', service charges will be made consistent across the Shire.

## Waste Management Financial Considerations

South Gippsland Shire Council aims to deliver waste management services on the basis of full cost recovery where possible. Exceptions to this are the provision of limited concessions to community groups, fundraisers and pensioners (as outlined below), covering the shortfall in Transfer Station income (disposal fees at Transfer Stations do not fully cover operating costs) and subsidised service charges for pensioner hard waste collection services.

### Waste Disposal Vouchers

South Gippsland Shire Council does not provide any tip passes or vouchers to individuals. Instead, a user pays principle is applied where the waste generator pays for their own waste disposal costs wherever possible. Due to the cost of providing tip passes or vouchers, and the fact that waste disposal vouchers remove incentives to reduce waste from being sent to landfill, tip passes or vouchers for individuals is not supported.

### Community Groups and Fundraisers

South Gippsland Shire Council currently offers partial concessions through allowing limited free waste disposal at Transfer Stations for fundraisers and community groups in recognition of their valuable contributions to the community. These concessions aim to support these groups, while ensuring they can effectively manage their waste disposal needs. By providing such concessions, South Gippsland Shire Council demonstrates its commitment to fostering a strong sense of community and encourages continued engagement and participation from these groups in various initiatives. It also reinforces South Gippsland Shire Council's dedication to responsible waste management practices and the promotion of sustainable waste reduction measures.



The guidelines that determine which groups are eligible for limited free waste disposal is found in [Appendix F](#). These guidelines may be reviewed and updated from time-to-time. There are no proposed changes to eligibility from the past South Gippsland Shire Council policy (C45) that governs the process.

### Hard Waste Collection

South Gippsland Shire Council provides an optional annual hard waste collection service, allowing the collection of up to two cubic metres of material from each household on the basis that the service must be booked and paid for by the user of the service. Residents can schedule collections through the website during July and August, with pickups generally taking place in October. The service fee is currently \$150, while pensioners receive a reduced rate of \$53 (reviewed through the budget process each year).

This collection initiative complements the existing Transfer Station network, catering to residents lacking trailers or facing mobility challenges. The hard waste service, in line with other waste services is based on full cost recovery, however, it is subsidised for pensioners. This approach ensures equitable waste disposal options for all residents while maintaining financial sustainability.



# Focus Areas of the Waste and Resource Recovery Plan

The Waste and Resource Recovery Plan for South Gippsland Shire Council is underpinned by several focus areas, each addressing key aspects of waste management and sustainability. These focus areas are strategically chosen to ensure compliance with waste management legislation, whilst at the same time, guiding the Shire towards practical, cost effective, environmentally responsible and community-focused waste management practices.

## The New Kerbside Collection Service

### Introduction of Food Organics and Green Organics Bins

Aligning with Victorian Government mandates, South Gippsland Shire Council will introduce significant enhancements to its waste management services. Central to these changes is the deployment of a universal 240 litre Food Organics and Green Organics bin, identifiable by its lime green lid, scheduled for 2026. Each household will also receive kitchen caddies and certified compostable caddy liners to facilitate the separation of organic waste.

At least six months prior to the introduction of the new Food Organics and Green Organics collection service, an extensive public education program will be developed and implemented in collaboration with South Gippsland Shire Council's contracted service providers. The education program will be based on material developed by the Victorian Government to support the roll out of Food Organics and Green Organics services, ensuring compliance with mandated service standards. This approach will provide consistency of information across the state and the Gippsland region, leading to achieving the best outcomes possible for the new service.

### Continuation and Adaptation of Recycling Services

The current 240 litre bin with a yellow lid will continue to serve as the receptacle for recyclable materials. In addition to this, South Gippsland Shire Council is investigating the most cost-effective means of glass collection. While a glass drop-off point at Transfer Stations is the favoured option due to cost efficiency, a kerbside glass collection service will be introduced if it becomes a Victorian Government requirement.

### Service Frequency Adjustments

A new collection schedule will be implemented, featuring a weekly collection for the 240 litre Food Organics and Green Organics bin, and a fortnightly collection for both the 120 litre residential waste and the 240 litre recycling bins. This revised frequency is designed to improve waste diversion rates from landfill, while also considering the associated service costs. Other councils who have already introduced a kerbside Food Organics and Green Organics service have achieved the best results with this model. If a separate glass collection bin is introduced, it will be collected on a monthly basis.

## **Enhanced Seasonal Collections**

To accommodate the increase in waste generated during the holiday season, South Gippsland Shire Council will assess the need for the provision of weekly collections for all bins from Christmas through January once the Food Organics and Green Organics service is introduced. The aim is to ensure that residents have ample bin capacity during this peak period.

## **Rural Kerbside Collections**

South Gippsland Shire Council's kerbside collection services are delivered under a contract. This designates collection areas, which are generally the built-up township areas defined by reduced speed restrictions and rural roads used to get from town-to-town to perform these services. In the case of rural collections, the service is optional for properties, but is only available if bins are able to be placed in a location for collection where trucks pass and it is safe to collect from.

South Gippsland Shire Council will extend collection areas where requested if collection points are safe and there are enough properties on the selected road to make the additional travel distance viable. Suitable turning options for the trucks must also be available.

Centralised collection points in managed, lockable compounds for rural properties is an option to explore.

## **Financial Implications and Cost Effectiveness**

Adjusting collection frequencies is projected to reduce overall waste management costs. Although additional collections incur costs, the expected reduction in landfill usage presents an opportunity for cost savings. These strategic changes are anticipated to deliver an effective and sustainable waste management system that is both environmentally responsible and economically beneficial for the residents of South Gippsland.

## **Event Recycling**

Over time, the number of significant public events held across the South Gippsland Shire has increased. Currently, event organisers are responsible for managing their events waste and recycling. Moving forward it is proposed to work with event organisers to encourage better resource recovery from events, including the use of event recycling bins and when available, possibly event Food Organics and Green Organics bins.

## Organic Waste Management

Under the Organic Waste Management focus area, a significant development will be the establishment of a new organics waste processing facility as part of the Gippswide Kerbside tender initiative. This state-of-the-art facility, located in the Latrobe Valley, will employ advanced in-vessel composting technology to process organic waste. The in-vessel composting method ensures a controlled environment for waste decomposition, resulting in high-quality compost while also reducing odours and the potential for contamination.

This facility represents a major step forward in regional waste management collaboration, providing a centralised solution for the processing of food and garden organics collected across multiple municipalities.

The development of this facility aligns with the objectives of enhancing waste diversion from landfills, reducing greenhouse gas emissions and producing valuable compost for use in agriculture and landscaping within the South Gippsland region and beyond.

## Waste Minimisation and Education

To increase the kerbside recovery rate from 50 per cent to 80 per cent within five years, South Gippsland Shire Council will implement a series of focused actions:

### Food Organics and Green Organics System Implementation

Introduce a new Food Organics and Garden Organics system to separate organic material from waste, addressing the potential identified in the 2018 and 2019 audits.

### Contract Management

South Gippsland Shire Council will oversee contractors to ensure they meet operational and educational obligations, fostering community awareness of waste and recycling practices and services.

### Recycling Enhancement

Improve the separation of recyclables, targeting the 15 per cent of recyclables still present in garbage bins and the current contamination in the recycling bin.

### Audits

Regularly conduct waste audits to assess and inform the ongoing effectiveness of the new systems and programs.

### Education Program

The contractor, under South Gippsland Shire Council's contract management, will redevelop the waste management education program to align with the new bin system rollout in 2026, utilising Victorian Government standardised messaging and artwork. Council leverages communication material prepared by Sustainability Victoria to give consistent messaging for all communities.

### Monitoring and Evaluation

Implement monitoring and evaluation processes to track the progress of educational initiatives and their impact on reducing waste and contamination rates.

By taking a strategic approach, including program development, behavioural encouragement, providing support and guidance, establishing feedback mechanisms, and collaborative efforts, South Gippsland Shire Council aims to embed sustainable waste management practices into the community lifestyle, ensuring the success of the waste minimisation strategy and achieving the targeted recovery rates.

## Commercial and Industrial Waste

In alignment with strategic objectives, South Gippsland Shire Council's involvement in commercial organic waste management is primarily focused on the provision of kerbside Food Organics and Green Organics services for commercial entities. South Gippsland Shire Council is committed to extending these services to the commercial sector, thus aiding in the significant diversion of organic waste from landfills to more sustainable processing pathways.

Furthermore, South Gippsland Shire Council will actively engage with the commercial and industrial sector to address the future of waste management service solutions and infrastructure. This includes collaborative discussions around the asset replacement planning for the current landfill, and practical and viable disposal solutions for residual waste. The partnership approach aims to ensure that both South Gippsland Shire Council and commercial entities are prepared for the transition to more advanced waste management solutions, with a shared interest in the long-term sustainability and environmental responsibility of waste practices in the region. Through these focused initiatives, South Gippsland Shire Council is working to promote a circular economy that benefits all stakeholders while mitigating the environmental impact of commercial waste.

## Landfill Asset Replacement

Landfill Asset Replacement is a critical focus for South Gippsland Shire Council's waste management strategy. Recognising the finite nature of landfill space and the environmental implications of landfill use, South Gippsland Shire Council is proactive in planning for future waste infrastructure needs.

South Gippsland Shire Council is exploring viable alternatives to traditional landfill usage, one of which includes the potential establishment of a state-of-the-art Commercial Waste Transfer Station. This facility would act as a central collection point for the Shire, efficiently consolidating waste from various sources before it is transported to downstream processing or disposal facilities. Such an asset would not only serve as a modern replacement for landfill space, but also enhance the efficiency of waste management practices in the region through sorting of materials prior to further treatment or disposal.

As we navigate the complexities of waste management and environmental stewardship, a key component of our strategy is the financial planning required for asset replacement. This ensures the sustainability of our waste infrastructure and the economic feasibility of transitioning to modern waste solutions.

## **Alternative Waste Treatment**

Alternative Waste Treatment is a future focus area in South Gippsland's waste management strategy. It encompasses various innovative technologies, including Anaerobic Digestion and other Waste-to-Energy options. These technologies have the potential to dramatically reduce South Gippsland Shire Council's emissions profile by diverting organic waste from landfills and harnessing its energy value.

By exploring a range of Alternative Waste Treatment solutions, South Gippsland aims to not only manage its waste more sustainably, but also contribute to our broader environmental goals by significantly cutting emissions associated with landfilling.

## **Investigation of Asset Replacement Levy**

The concept of an Asset Replacement Levy is a strategic financial approach aimed at preparing for the eventual replacement of the Koonwarra Landfill. As this key asset approaches the end of its service life, the Levy could be a prudent solution to fund the development of a modern waste management facility. This facility would centralise waste handling and facilitate efficient transport to a regional landfill or an Alternative Waste Treatment Facility, ensuring uninterrupted waste services for the local and commercial sectors of South Gippsland.

Calculating the Levy involves a detailed valuation of the new facility and a review of historical and projected waste volumes. The exact model to finance the asset replacement costs for when the Koonwarra Landfill reaches capacity would be designed to provide the most equitable solution for South Gippsland ratepayers. It could take the form of a component of future disposal costs, added to the garbage charge payable by properties receiving a kerbside waste service, or most likely a combination of both.

# Implementation Plan

The South Gippsland Shire Council Waste and Resource Recovery Plan 2024 to 2034 provides a detailed framework for sustainable waste management and resource recovery. To translate this Plan into actionable steps, an Implementation Plan (see table below) has been created, focusing on the milestones, timelines and responsibilities essential for successful implementation.

The costs associated with most of the proposed actions have been allowed for in South Gippsland Shire Council's Long Term Financial Plan. In the case of detailed planning and potential construction of significant new infrastructure, it is proposed that these costs are either covered by the introduction of a forward-thinking Asset Replacement Levy, or otherwise recovered through waste disposal fees levied on users of the facilities.

Year	Actions	Responsibility	Details
2024/25	Investigate the establishment of an Asset Replacement Levy.	South Gippsland Shire Council.	Consider and, if supported, implement an Asset Replacement Levy as a finance instrument to fund the construction of a Commercial Waste Transfer Station.
	Baseline kerbside bin audit.	South Gippsland Shire Council.	Conduct a comprehensive waste audit on the existing bin system.
2025/26	Develop an education program for new kerbside services.	South Gippsland Shire Council / Contractor.	Develop and deliver an education program to assist the introduction of new kerbside collection services.
	Introduction of a new kerbside collection system.	South Gippsland Shire Council / Contractor.	Introduce a new bin system.
	Food Organics and Green Organics bins rollout.	Contractor.	Deploy a 240 litre Food Organics and Green Organics bin to all serviced premises.  Standardise waste and recycling service coverage.
	Plan for the introduction of separate glass collection services.	South Gippsland Shire Council.	Consider and finalise the process for the separate collection of glass, ensuring compliance with state mandates.
	Introduce separate glass collection service.	South Gippsland Shire Council / Contractor.	Implement separate glass recycling service (kerbside and/or drop off) in accordance with state mandates.
2026/27	Kerbside bin audit.	Contractor.	Conduct a comprehensive waste audit on the new bin system and update education programs based on results.

Year	Actions	Responsibility	Details
<b>2027/28</b>	Plan for Commercial Waste Transfer Station.	South Gippsland Shire Council.	Plan for the establishment of a central hub for waste consolidation, plan for required approvals and consider the operational service model.
	Assess landfill alternatives.	South Gippsland Shire Council.	Explore and plan for sustainable alternatives to traditional landfill usage for when the Koonwarra Landfill reaches capacity.
<b>2028/29</b>	Kerbside bin audit.	Contractor.	Conduct a comprehensive waste audit on the new bin system and update education programs based on results.
	Waste and Resource Recovery Plan review.	South Gippsland Shire Council.	Review performance against actions and update the Waste and Resource Recovery Plan.
<b>2029/30</b>	Review residual waste treatment options.	South Gippsland Shire Council.	Finalise and/or procure waste treatment/disposal option for residual waste.
	Commercial Waste Transfer Station construction.	South Gippsland Shire Council.	Construct Commercial Waste Transfer Station.
<b>2030/31</b>	Kerbside bin audit.	Contractor.	Conduct a comprehensive waste audit on the new bin system and update education programs based on results.
	Commercial Waste Transfer Station operational.	South Gippsland Shire Council.	Commence operations at the Commercial Waste Transfer Station.
<b>2032/33</b>	Kerbside services contract procurement.	South Gippsland Shire Council.	Prepare tender documents and undertake a tender process for the procurement of kerbside collection services.
	Kerbside bin audit.	Contractor.	Conduct a comprehensive waste audit on the new bin system and update education programs based on results.
	Final review and future planning.	South Gippsland Shire Council.	Review the Waste and Resource Recovery Plan's effectiveness and plan for future waste management initiatives.



Appendix



## Appendix A – Performance Analysis of the 2016 to 2021 Waste and Resource Recovery Plan

During the implementation of the previous Waste and Resource Recovery Plan from 2016 to 2021, a total of 32 actions were identified as key objectives. Four of the actions became obsolete during the term of the Plan, leaving 28 actions. The majority of these actions, specifically 26 (93 per cent) were successfully completed, showcasing significant progress in waste management and resource recovery within the South Gippsland Shire.

It is noted that four actions were not attempted due to becoming obsolete, and two actions were only partially achieved. The actions only partially achieved were:

- **Action 1.5: Conduct annual audits of kerbside garbage, recycling and garden waste bins.**
  - » This action was partially achieved as the sample size and frequency of audits were reduced. Financial constraints, resulting from increased budget allocations towards regulatory compliance, necessitated adjustments to the audit program. Despite the reduction, efforts were still made to conduct audits to ensure ongoing monitoring and improvement of waste management practices.
- **Action 5.2: Undertake audits of public bins to review usage rates with a view to optimising bin locations and collection schedules prior to re-tendering the service.**
  - » Optimising the collection schedule for public litter bins was delayed due to existing contractual conditions. This has now been completed with the updated schedule to take effect from February 2024. Locations for litter bins have been gradually reviewed as individual towns have had their litter bin infrastructure upgraded.

While these actions were not fully achieved, South Gippsland Shire Council made reasonable efforts within the financial constraints and operational limitations faced during the implementation of the previous Waste and Resource Recovery Plan. The adjustments made ensured that progress was still made towards improving waste management practices, infrastructure upgrades and regulatory compliance.

The four actions that became obsolete include feasibility studies into pre-sorting and material aggregation at Transfer Stations, recording littering in the Shire, and an extension of the Koonwarra Landfill.

The extension of the Koonwarra Landfill, initially intended to secure its long-term viability, has been constrained by new Environment Protection Authority legislation mandating increased buffer distances between landfills and residential properties. As a result, seeking Environment Protection Authority approval for the Landfill's expansion has become unfeasible. This situation underscores the urgency of finding alternative methods to prolong the lifespan of the Koonwarra Landfill.

Regarding the feasibility study into pre-sorting at Transfer Stations to enhance resource recovery, this action has been deprioritised due to new contractual requirements. The contracts now mandate that contractors bear the cost of landfill disposal, which has shifted the focus towards reducing waste generation and optimising landfill diversion strategies.

Similarly, the material aggregation action has also experienced a change in priority. With the presence of new facilities, such as Materials Recovery Facilities and Food Organics and Green Organics processing facilities in the Latrobe Valley, the need for material aggregation in the South Gippsland Shire has diminished, which in itself is a significant success.

# Appendix B – Analysis of Waste Audits between 2016 and 2019

## 2016

The 2016 South Gippsland Shire Domestic Garbage Waste Audit Report provides detailed information on the composition and size of the domestic garbage waste stream in Leongatha, conducted in April 2016.

The key findings from the report were:

**Average Household Waste Contribution** – Each household presented an average of 11.25 kilograms of materials to the garbage waste stream per week.

### Composition of Waste Stream:

- Garden Waste – Accounted for 2.9 per cent of the garbage waste stream by weight, significantly down from 19.5 per cent in the previous audit before the introduction of the green waste service.
- Residual Waste – Represented 45.4 per cent of the total garbage waste stream.
- Recyclable Materials – Households presented 1.48 kilograms of recyclable materials per week to the garbage waste stream, indicating a decrease from previous results.
- Food Waste – Accounted for 38.5 per cent of the garbage waste stream, with an average of 4.33 kilograms of food waste per household per week.

### Quantitative Breakdown:

Type	Percentage	Kilograms
Paper and Cardboard	5.8	72.18
Recyclable Containers	7.3	90.37
Food	38.5	476.10
Garden	2.9	36.47
Residual	45.4	562.49
<b>Total Materials</b>		<b>1,237.61</b>

**Comparison Over Time** – There was a slight increase in the average bin weight from the previous audit (11.13 kilograms). Notably, there has been a substantial decrease in garden waste due to the introduction of the kerbside green waste service.

## 2017

The 2017 South Gippsland Shire Domestic Garbage Waste Audit Report presents a detailed analysis of the waste composition for Leongatha, conducted in March 2017.

The key findings from the report were:

**Average Household Waste Contribution** – Each household presented an average of 12.88 kilograms of materials to the garbage waste stream per week, showing a continued increase in average bin weight over time.

### Composition of Waste Stream:

- Garden Waste – Accounted for only 1.3 per cent of the garbage waste stream by weight, highlighting a substantial decrease from previous audits, especially before the introduction of the green waste service.
- Residual Waste – Represented 38.9 per cent of the total garbage waste stream.
- Recyclable Materials – Households presented 2.04 kilograms of recyclable materials per week to the garbage waste stream, showing a decrease from previous audits.
- Food Waste – Accounted for 44.1 per cent of the garbage waste stream, with an average of 5.67 kilograms of food waste per household per week.

### Quantitative Breakdown:

Type	Percentage	Kilograms
Paper and Cardboard	5.4	69.60
Recyclable Containers	10.4	134.08
Food	44.1	567.37
Garden	1.3	16.32
Residual	38.9	500.64
<b>Total Materials</b>		<b>1,288.01</b>

**Comparison Over Time** – There has been a continual increase in the average bin weight over time, with a significant reduction in garden waste due to the kerbside green waste service.

## 2018

The **June 2018** South Gippsland Shire Council Domestic Garbage Waste Audit Report provides insights into the waste generation and composition in Leongatha.

The key findings from the report were:

### **Overall Waste Generation:**

- The combined garbage and recycling generation rate was 15.35 kilograms per household per week.
- Total weight of materials examined during the audit was 2.03 tonnes.

### **Kerbside Garbage Stream:**

- Overall Generation Rate: 10.38 kilograms per household per week.
- Food Waste: 4.01 kilograms per household per week.
- Garden Waste: 0.56 kilograms per household per week.
- Recyclables: 0.98 kilograms per household per week.
- Other Waste: 4.83 kilograms per household per week.
- Recoverable Resources (recycling and garden waste) in the Garbage Stream: 14.82 per cent by mass, 22.67 per cent by volume.

### **Kerbside Recycling Stream:**

- Generation Rate: 4.97 kilograms per household per week.
- Contamination Rate: 13.11 per cent by mass, 13.36 per cent by volume.

### **Waste Composition Breakdown (Garbage Stream):**

- Food Waste: 38.63 per cent by mass.
- Garden Organics: 5.35 per cent by mass.
- Recycling: 9.47 per cent by mass.
- Other Waste: 46.55 per cent by mass.

**Comparison Over Time** – This report continues to show a trend of increasing average bin weight over time, with a significant portion of the waste stream still comprising of food waste and a notable quantity of recyclables in the garbage stream.

The **October 2018** South Gippsland Shire Council Domestic Garbage Waste Audit Report provides an updated analysis of the waste composition and generation in Leongatha.

The key findings from the report were:

#### **Overall Waste Generation:**

- The combined garbage and recycling generation rate was 13.40 kilograms per household per week.
- Total weight of materials examined during the audit was 2.19 tonnes.

#### **Kerbside Garbage Stream:**

- Overall Generation Rate: 10.55 kilograms per household per week.
- Food Waste: 4.17 kilograms per household per week.
- Garden Waste: 0.76 kilograms per household per week.
- Recyclables: 1.26 kilograms per household per week.
- Other Waste: 4.36 kilograms per household per week.
- Recoverable Resources in the Garbage Stream: 19.11 per cent by mass.

#### **Kerbside Recycling Stream:**

- Generation Rate: 5.69 kilograms per household per week.
- Contamination Rate: 14.62 per cent by mass, 15.78 per cent by volume.

#### **Waste Composition Breakdown (Garbage Stream):**

- Food Waste: 39.56 per cent by mass.
- Garden Organics: 7.18 per cent by mass.
- Recycling: 11.93 per cent by mass.
- Other Waste: 41.33 per cent by mass.

**Comparison Over Time** – This report continues to show a trend of increasing average bin weight over time and a significant portion of the waste stream still comprising of food waste and recyclables in the garbage stream.

## 2019

The March 2019 South Gippsland Shire Council Domestic Garbage Waste Audit Report provides a comprehensive overview of waste management in the region.

The key findings were:

### **Overall Waste Generation:**

- The combined garbage and recycling generation rate was 16.21 kilograms per household per week.
- Total weight of materials examined during the audit was 2.21 tonnes.

### **Kerbside Garbage Stream:**

- Overall Generation Rate: 10.28 kilograms per household per week.
- Food Waste: 2.94 kilograms per household per week.
- Garden Waste: 0.44 kilograms per household per week.
- Recyclables: 1.31 kilograms per household per week.
- Other Waste: 5.60 kilograms per household per week.
- Recoverable Resources in the Garbage Stream: 16.93 per cent by mass, 29.34 per cent by volume.

### **Kerbside Recycling Stream:**

- Generation Rate: 5.93 kilograms per household per week.
- Contamination Rate: 15.39 per cent by mass, 14.30 per cent by volume.

### **Waste Composition Breakdown (Garbage Stream):**

- Food Waste: 28.62 per cent by mass.
- Garden Organics: 4.23 per cent by mass.
- Recycling: 12.69 per cent by mass.
- Other Waste: 54.45 per cent by mass.

**Comparison Over Time** – This report shows a trend of increasing average bin weight over time, with a significant portion of the waste stream still comprising of food waste and recyclables.



# Appendix C – Responsibilities under New Victorian Legislation

In the context of Victoria’s waste management framework, both councils as waste generators and the receiving facilities have distinct responsibilities in managing and sorting waste and recyclables. The framework is designed to enhance waste management practices, emphasising waste reduction, recycling and recovery.

## Responsibilities of Councils as Waste Generators



**Waste Classification and Management:** Councils must classify the waste they manage, including determining if it’s Industrial Waste, Priority Waste or Reportable Priority Waste. This classification guides how the waste should be handled, transported and disposed of.



**Compliance with General Environmental Duty:** Under the *Environment Protection Act 2017*, councils are required to proactively manage risks to human health and the environment. This includes taking steps to ensure that waste is managed responsibly and does not lead to illegal dumping.



**Provision of Waste Services:** Councils are responsible for providing waste services to their communities. This includes the collection of household waste and recyclables, and potentially other streams like organic waste or glass, depending on local arrangements and infrastructure.



**Engagement with Recycling Victoria:** Councils need to work with Recycling Victoria, the overseeing body for waste and recycling, to ensure their waste management plans and actions align with state-wide policies and standards.

## Responsibilities of Receiving Facilities (Lawful Places):



**Sorting and Processing:** Facilities receiving waste and recyclables are responsible for sorting and processing these materials. This includes separating recyclables from general waste and potentially further sorting recyclables into different categories like paper, glass, plastics etc.



**Compliance with Regulations and Standards:** Receiving facilities must comply with the regulations and standards set by the Victorian Government and Recycling Victoria. This includes adhering to the specific requirements for handling different classifications of waste, like Priority Waste or Reportable Priority Waste.



**Proper Disposal or Recycling:** Facilities must ensure that waste is disposed of lawfully and that recyclables are recycled in a way that aligns with the state's goals for waste reduction and resource recovery.



**Reporting and Documentation:** Facilities are likely required to maintain records and report certain information to regulatory bodies like the Environment Protection Authority or Recycling Victoria. This includes details about the types and quantities of waste and recyclables received and processed.

Both councils and receiving facilities play crucial roles in Victoria's waste management system, and their responsibilities are designed to work in tandem to achieve better environmental outcomes. By effectively managing, sorting and processing waste and recyclables, they contribute to the broader goal of transitioning to a circular economy, where waste is minimised, and resources are reused and recycled to the greatest extent possible.

## Appendix D – New Legislative Framework

The primary legislation governing waste management in Victoria is the *Environment Protection Act 2017*. This Act, along with the Environment Protection Regulations, provides the legal framework for the management of waste in the state.

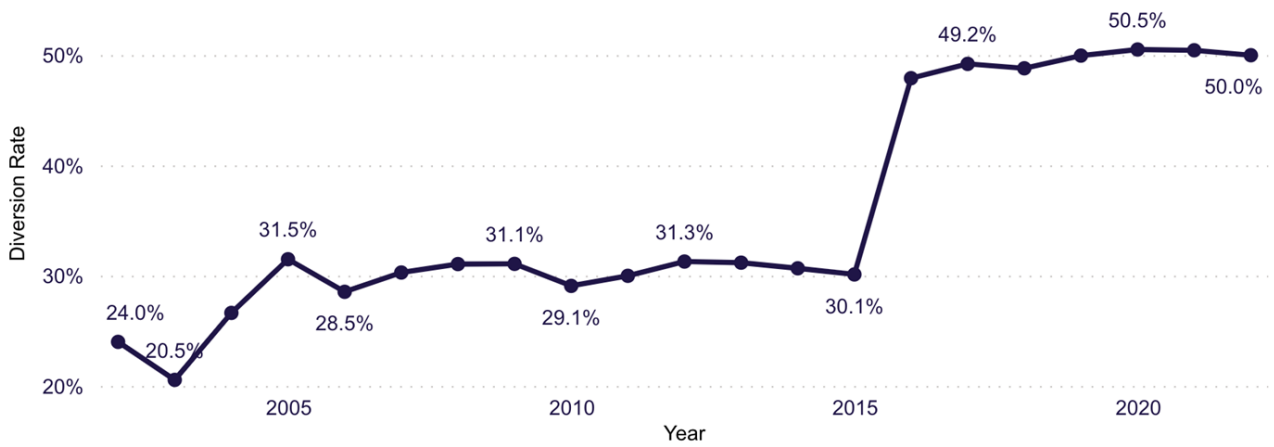
Key aspects of the legislation include:

- **General Environmental Duty:** This Duty, introduced in the *Environment Protection Act 2017*, requires individuals and businesses to take reasonable steps to minimise risks of harm to human health and the environment from their activities. This includes the management of waste.
- **Waste Classification System:** The Environment Protection Regulations establish a tiered system for the classification, transport and reporting of industrial and priority waste, replacing the previous prescribed industrial waste system.
- **Duties for Waste Generators:** Under these laws, waste generators including councils, have duties to classify waste correctly and ensure its proper management and disposal.
- **Circular Economy (Waste Reduction and Recycling) Act 2021:** This Act complements the Environment Protection Act by focusing on recycling and the reduction of waste. It establishes Recycling Victoria and sets out standards for the separation and sorting of waste materials by businesses.

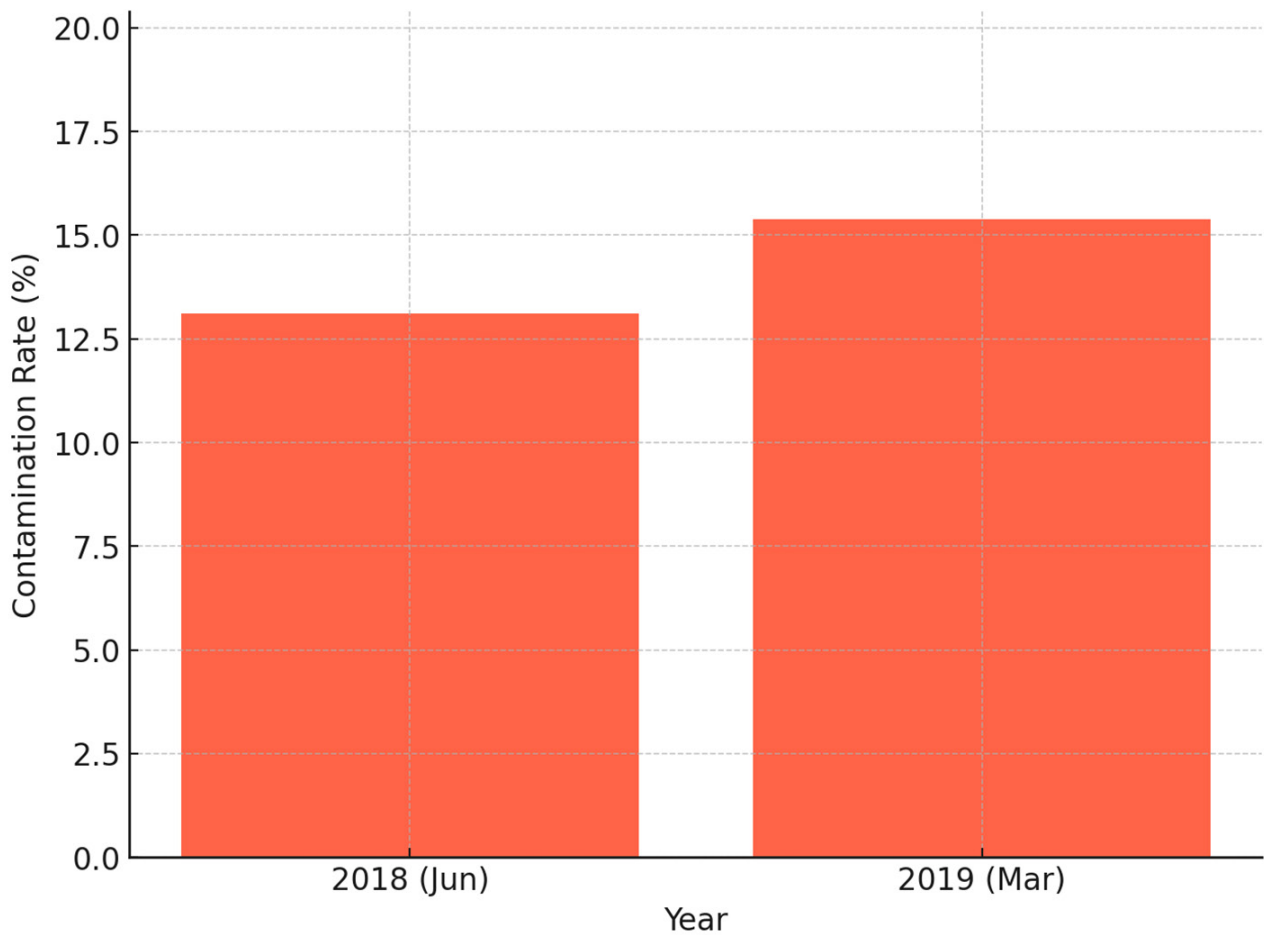
These laws collectively form the basis of Victoria's approach to waste management, emphasising waste reduction, proper classification and handling, and the promotion of recycling and resource recovery.

# Appendix E – Waste Management Data

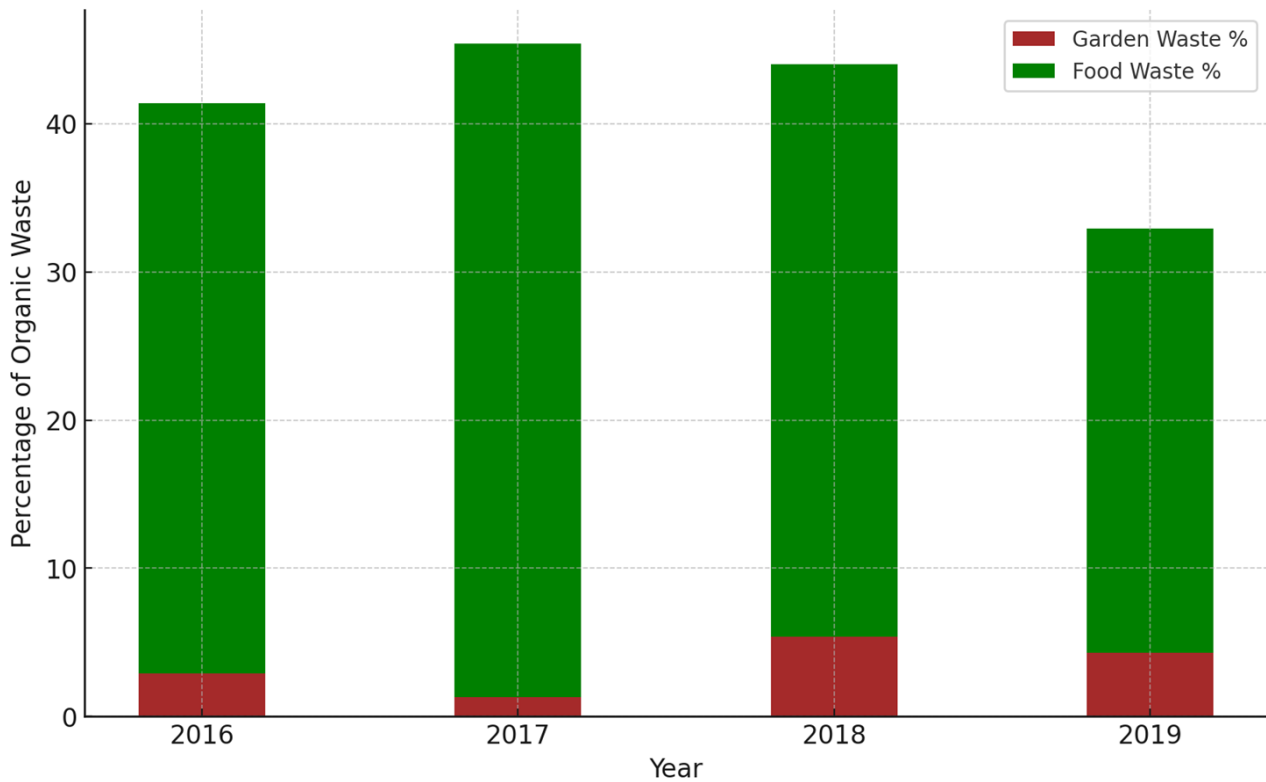
## Kerbside Diversion Rate



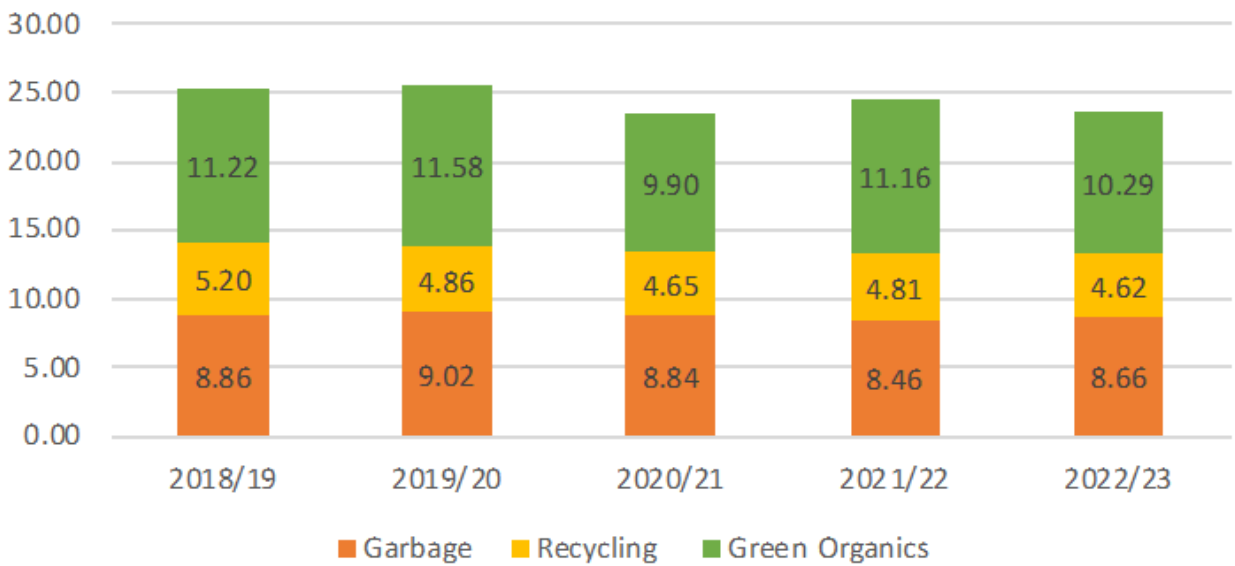
## Recycling Contamination Rates



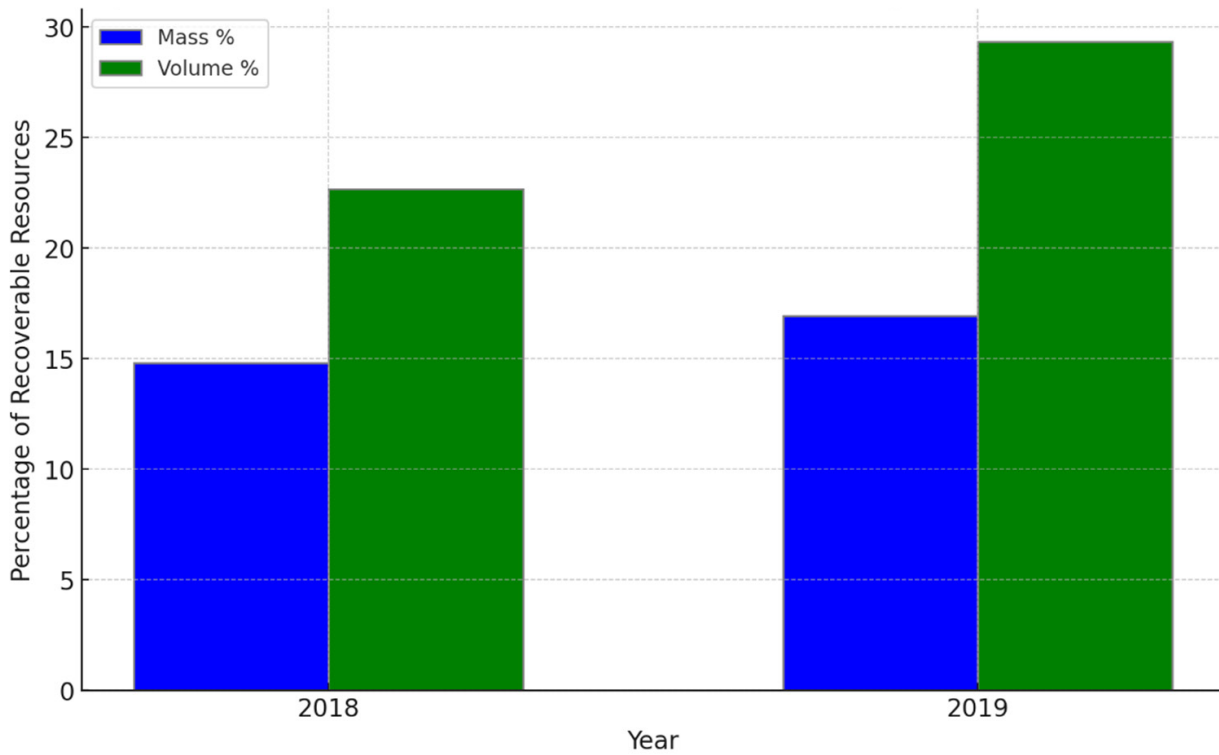
## Organic Waste in the Garbage Stream



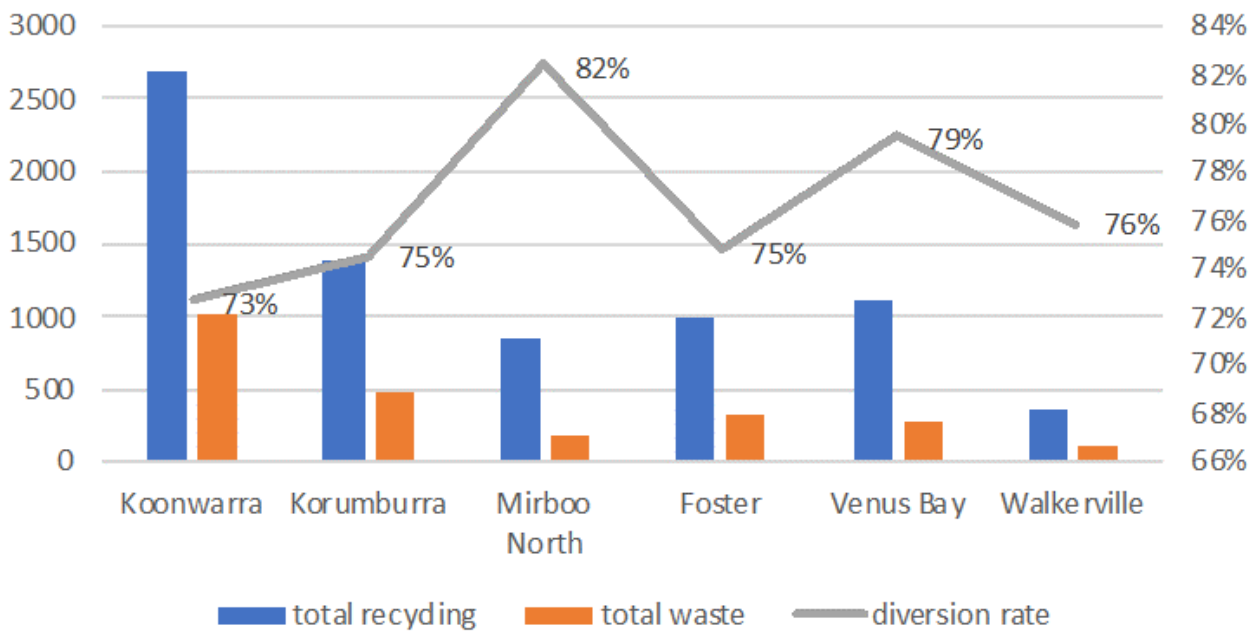
## Average Household Waste Generation Per Household Per Week (in kilograms)



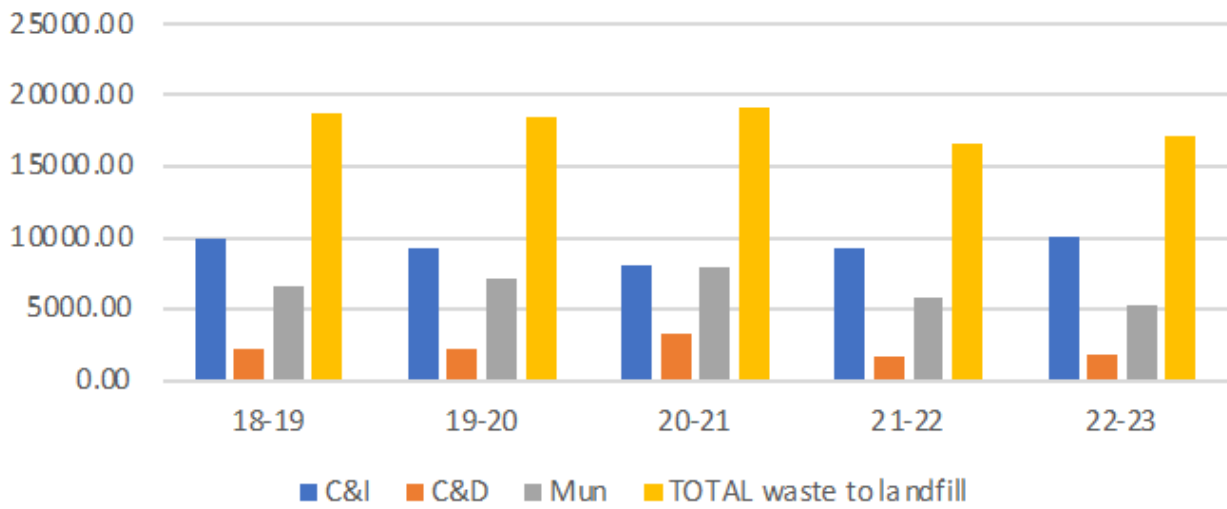
## Recoverable Resources in the Garbage Stream



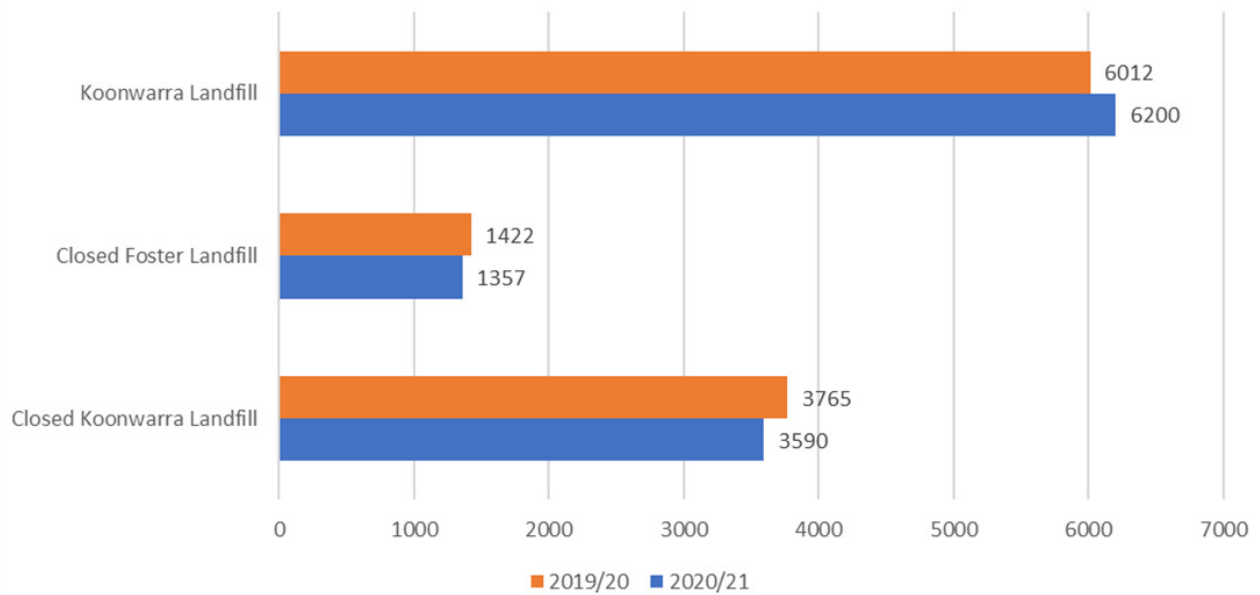
## Transfer Station Diversion Rates



## Landfill Waste Disposal by Waste Category (Tonnes per year)



## Landfill Greenhouse Gas Emissions (Tonnes of CO2 equivalent)



## Appendix F – Waste Disposal Concessions for Fundraisers and Community Groups

To support the function of fundraising and community groups, South Gippsland Shire Council may, in some cases, be able to assist with the costs of waste disposal through the provision of a Waste Disposal Privileges Card. If approved, the Card will enable groups to dispose of limited amounts of non-recyclable waste at no cost.

When considering whether a group is eligible for a Waste Disposal Privileges Card, the following definitions of groups apply:

- **Fundraising Groups** are groups that raise funds solely to provide benefit to the wider community.
- **Community Groups** are ongoing recognised groups that are:
  - » A community-based organisation or service;
  - » Not-for-profit;
  - » Not currently receiving ongoing operating funds from the South Gippsland Shire Council or Victorian or Australian Government;
  - » Providing a service to the whole community; and
  - » Not operating for the sole benefit of its own association.

Eligible groups may qualify for a Waste Disposal Privileges Card if:

- They are disposing of waste resulting from an emergency or natural disaster;
- The waste has been collected during Clean Up Australia Day activities;
- The waste has been collected during community clean-ups on Council-owned or managed property;
- The works carried out by a community group would otherwise have been done by Council; and
- In the case of a fundraising group, the waste has been generated directly as a result of fundraising activities.



## Appendix G – Action Plan

Year	Quarter	Task	Milestone	Responsibility	Expected Outcome	Metrics for Success	Status
2024/25	Q1 to Q2	Conduct baseline Kerbside Bin Audit.	Baseline audit completed.	South Gippsland Shire Council.	Baseline data for future waste management strategies.	Audit report with baseline data.	Planned.
2024/25	Q1 to Q2	Consider Asset Replacement Levy.	Asset Replacement Levy planning.	South Gippsland Shire Council.	Framework for funding Transfer Station.	Levy framework approved by Council.	Planned.
2024/25	Q3 to Q4	If supported, communicate Asset Replacement Levy to stakeholders via Budget process.	Asset Replacement Levy establishment.	South Gippsland Shire Council.	Stakeholder understanding and support of the Levy.	Stakeholder agreement and support metrics.	Planned.
2025/26	Q1 to Q2	Initiate public education campaign.	Education program completed.	South Gippsland Shire Council / Contractor.	Enhanced public participation in waste management.	Participation and contamination rates reduction.	Planned.
2025/26	Q1 to Q2	Plan for separate glass collection services.	Glass Collection planning.	South Gippsland Shire Council.	Strategy for separate glass collection.	Plan completion and approval.	Planned.
2025/26	Q3 to Q4	Rollout Food Organics and Green Organics bins.	Food Organics and Green Organics bins distributed.	Contractor.	Increased organic waste diversion.	Percentage increase in organic waste diversion.	Planned.

Year	Quarter	Task	Milestone	Responsibility	Expected Outcome	Metrics for Success	Status
2025/26	Q3 to Q4	Introduce new kerbside collection system.	New collection system rolled out.	South Gippsland Shire Council / Contractor.	Efficient waste collection and reduced contamination.	Successful rollout and system performance.	Planned.
2025/26	Q3 to Q4	Implement separate glass collection service.	Glass Collection service implemented.	South Gippsland Shire Council / Contractor.	Operational glass recycling service.	Volume of glass collected and recycled.	Planned.
2026/27	Q1 to Q2	Audit new kerbside system.	Post-implementation Waste Audit.	Contractor.	Insights into new system's effectiveness.	Audit report with system performance data.	Planned.
2027/28	Q1 to Q2	Plan Commercial Waste Transfer Station.	Waste Transfer Station planning.	South Gippsland Shire Council.	Detailed plan for Waste Transfer Station.	Planning documents and regulatory approval.	Planned.
2027/28	Q3 to Q4	Assess future landfill alternatives.	Landfill Alternatives Assessment.	South Gippsland Shire Council.	Alternative solutions to traditional landfill.	Assessment report with alternatives proposed.	Planned.
2028/29	Q1 to Q2	Conduct follow-up Kerbside Bin Audit.	Follow-up Waste Audit.	Contractor.	Updated data on waste system efficiency.	Comparison with baseline data.	Planned.
2028/29	Q3 to Q4	Review Waste and Resource Recovery Plan.	Waste and Resource Recovery Plan review and update.	South Gippsland Shire Council.	Improved strategies for waste management.	Updated Waste and Resource Recovery Plan with new strategies.	Planned.

Year	Quarter	Task	Milestone	Responsibility	Expected Outcome	Metrics for Success	Status
2028/29	Q3 to Q4	Review residual waste treatment options.	Residual waste treatment options finalisation.	South Gippsland Shire Council.	Decision on residual waste treatment or disposal.	Finalised treatment or disposal method.	Planned.
2029/30	Q1 to Q2	Review and adjust education programs.	Education program assessment.	South Gippsland Shire Council / Contractor.	Updated and more effective education programs.	Feedback and performance metrics.	Planned.
2029/30	Q3 to Q4	Construct Waste Transfer Station.	Waste Transfer Station construction completed.	South Gippsland Shire Council.	Ready-to-operate waste transfer facility.	Construction completion and facility readiness.	Planned.
2030/31	Q1 to Q2	Conduct Kerbside Bin Audit.	Comprehensive Waste Audit.	Contractor.	Data to inform long-term waste management strategies.	Detailed audit report.	Planned.
2030/31	Q3 to Q4	Begin operations at Waste Transfer Station.	Waste Transfer Station operational.	South Gippsland Shire Council.	Functional waste transfer operations.	Operational metrics achieved.	Planned.
2032/33	Q1 to Q2	Procure kerbside and public bin services contract.	Kerbside services contract procured.	South Gippsland Shire Council.	Secured contract for kerbside collection services.	Successful tender process completed.	Planned.

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**South Gippsland**  
Shire Council