



# **ATTACHMENTS**

**Under Separate Cover  
Council Meeting**

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**6.00pm Tuesday 25 August 2020**



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## Draft Waste and Resource Recovery Strategy Public Exhibition Comments

	Suburb	Post Code	Date	Comments
1	Bannockburn	3331	3/07/2020	<p>I support the need to reduce landfill however we need better options. Rokewood is quite far for a lot of people and only open Sundays! We should have drop off locations in other areas that Council can take to Rokewood or open it up more hours.</p> <p>I also think green waste in Bannockburn needs to come in sooner. I have a large lawn and no where to put my cuttings - I do wonder how many people are in the same vote</p> <p>Could we also have charity bins for clothes and textiles somewhere on Council land?</p> <p>IT is all good to educate people but unless they have easy access to alternative options they will continue to put litter on the side or the road and in the garbage bin</p>
2	Shelford	3329	5/07/2020	<p>Please bring back weekly rubbish collection, also consider at least 2 to 3 times a year hard rubbish collection, We pay a very large amount of rates yearly and we get nothing for it!! I don't need a green waste bin as we compost, and to be honest so could just about every homeowner. Weekly rubbish collection is a top priority to many, especially through summer.</p>
3	Batesford	3213	8/07/2020	<p>I live on an acre property with septic I do not need a green waste bin or a composting bin as I already have a worm farm and a composting bin we use on our property for recycling garden waste and food scraps A lot of people in this area are doing the same and I don't see why we should pay for something we do not use. It should be a user pay system this is fairer for everyone Our rates are already excessive and continue to increase and we really are subsidising other people within the shire as our estate has had no maintenance. The increases don't even get used to fix the open drains that don't work in the streets We have stagnant water in the drains all year round so I do not want to pay for bins I would not use</p>
4	Bannockburn	3331	10/07/2020	<p>On review of the proposed plan, the overall plan seems reasonable however I would like to make a few suggestions regarding placement of public bins within the shire in particular along the walking trail of the creek, making it easier for residences to dispose of dog waste. With no bins located close to trail dogs waste is often left. I understand access to collection of waste could be an issue however have bins at different entrances of the trail can overcome this.</p>
5	Smythes Creek	3351	15/07/2020	<p>It is a total waste of money picking up the yellow recycle bin every week as most people would not half fill it. If both the household waste &amp; the recycle bin were emptied fortnightly it would make more sense</p>
6	Meredith	3333	15/07/2020	<p>I would get by with less frequent collection of both my current waste and recycle bins..(Taylor Rd,, not a lot of houses).. perhaps if others needed an extra bin we could reduce frequency of collection...[in rural areas with small amounts of residents. less distance for trucks to travel is the first advantage, also helps the gravel road,...</p> <p>I'd also like to see some incentive for rate payers that produce less waste for kerb side pick up...</p> <p>thanks,,</p>
7	Shelford	3329	16/07/2020	<p>With a growing population of young adults in the region. Rubbish bins need to be picked up weekly. Young families have been putting bins out earlier than needed as the smell of soiled nappies is quite a stench.</p>
8	Teesdale	3328	16/07/2020	<p>Option 3 garden waste in the whole shire</p>



## Draft Waste and Resource Recovery Strategy Public Exhibition Comments

9	Bannockburn	3331	16/07/2020	<p>I agree with the overall strategy to improve the system.</p> <p>1. The glass bin. Preference for a deposit scheme on all glass bottles and jars. If this was in place we would probably never fill a glass bin over the year.</p> <p>2. Re general rubbish. As a two person household we currently fill our fortnightly bin to capacity as it usually has significant amounts of green waste. It must be very difficult for larger households so maybe they could be given the option of a second heavily discounted bin. This lack of bin capacity is possibly one of the reasons why the high percentage of rubbish in the recycle bin occurs.</p> <p>3. The green waste bin is a very sensible option but in a Shire where the perception is that our rates are excessive to charge extra would be unpopular. If we had a green bin the need to empty the general rubbish would lessen. We would be disposing of the same amount of rubbish but it would be separated thus reducing land fill costs as the green waste went to a composting facility.</p> <p>4. The education process needs to continue and be extended as the disposal of some items such as plastic meat trays and harder plastics is confusing.</p>
10	Teesdale	3328	16/07/2020	I vote for option 2 if that's what bannockburn wants. I do not believe teesdale needs a bin for food scraps, we usually have a compost bin on our land where we dispose of it ourselves.
11	Anonymous		22/07/2020	<p>I strongly agree with option 1, we are currently saving by composting + don't have food waste.</p> <p>Also garden waste composted, burnt or can be taken to transfer station if needed.</p> <p>But expense of a bin, not warranted. More energy / resources used!</p>
12	Bannockburn	3331	23/07/2020	<p>Plan seems OK but i think the council should be pushing hard for a four bin system, Glass, Hard plastics and metal, Green and Organics, General.</p> <p>Also council could be pressing Woolworths as to why they have stopped the soft plastic collections at the entry to their shops. This was a very good option for our community but has now ceased to operate. This was almost like another bin, which council was not paying for ....</p>
13	Bannockburn	3331	23/07/2020	<p>We have lived at current address for 12 years on a 1,000 square metre corner block, with wide nature strip at front and long at side, both with trees which drop twigs and sometimes branches. Our own block has 29 Lilly Pillies, 20 Rose bushes, numerous shrubs, several garden beds and significant areas of lawn.</p> <p>WE HAVE ALWAYS NEEDED A GARDEN WASTE BIN, collected fortnightly, as do most residents of Bannockburn.</p> <p>Stop talking about it and GET IT DONE A.S.A.P.</p>
14	Smythes Creek	3351	27/07/2020	<p>While walking around the roads of Haddon and Smythescreek I have noticed a large amount of rubbish on the edges of the road.</p> <p>I have taken it soon myself to collect some of this rubbish as has accumulated and is impacting on our environment.</p> <p>I take this rubbish to my property and sort it into general rubbish and recyclable products. I take the glass and plastic products into the Ballarat recycling centre.</p> <p>I get disappointed with the amount of plastic straws and plastic coffee cups that end up on the roadsides and as we know it takes 1000s of years for plastic to break down.</p> <p>I don't know how we deal with this waste but maybe local communities could get together and create our own recycling centre where people sort the recycling and create a money making enterprise that could be spent in that community.</p> <p>Also living next to the Haddon common reserve it disappointing the amount of rubbish that is dumped into this space mattresses, cars, bulk waste. This rubbish becomes a home for vermin or a fire risk. My a community group could be formed such as a friends of the Haddon Common where people again to ownership of this area.</p> <p>Regards,</p>

?

## Draft Waste and Resource Recovery Strategy Public Exhibition Comments

15	Smythesdale	3351	27/07/2020	<p>Hi</p> <p>Can you please try to control the many Feral Animals around your Smythesdale landfill site</p> <p>Foxes are constantly trying to take my chickens</p> <p>Feral Cats have spread the feline aids virus &amp; killed both of my cats</p> <p>Native Ibis are in huge numbers &amp; causing trouble</p> <p>My Bees contracted American Foul Brood from this site &amp; had to be destroyed with thousands of dollars worth of equipment</p> <p>If Ballarat wants the benefits of this site they should be fixing its problems</p> <p>Thanks</p>
16	Inverleigh	3321	28/07/2020	<p>We refer to our original submission made in writing when the new strategy proposal was put and adopt it. Rural LDRZ houses do not all require 4 bins. Most waste can and is recycled on the property or plastics via Supermarkets. Green waste bin is particularly not needed.</p> <p>Our preference for there to be a central collection point in each rural town, like Inverleigh, where residents can deposit recyclable paper/cardboard and bottles. We can take it there and don't need Council to pay huge money to contractors to pick what little there is from us each week. This process has worked seamlessly in the UK for more than 40 years. This reduces cost to ratepayers for services they don't need. It efficiently sorts recyclables into the right box and then the contractor only has to make one journey each week to pick up the contents. Plus this reduces emissions from the contractors diesel truck. Whats not to like? Win win. The cost of paying for 4 ugly bins to sit in our driveway for no other purpose than mandating them is abhorrent. Finally the existing service needs to be reversed. Weekly collection of land fill garbage and biweekly recycle collection. But UK option for latter is strongly supported. Here's GPSC chance to be creative and innovative!</p>
17	Bannockburn	3331	29/07/2020	<p>To whom it may concern,</p> <p>Thank you for the opportunity to comment on the Draft Strategy.</p> <p>Unfortunately in my opinion the Strategy does anything but articulate a clear pathway for managing the waste issue and its associated costs to ratepayers.</p> <p>As acknowledged in the document the State Government initiatives including a proposed container deposit scheme and a four bin treatment have meant things are very much up in the air.</p> <p>This surely means the Council should wait until these matters are largely resolved before putting a more substantive roadmap to put before the community.</p> <p>The current strategy contains innumerable caveats and as such appears to give the Council virtual carte blanche in the future, to impose whatever rubbish collection regime that they, rather than the community, sees fit.</p> <p>I recognise the work that has gone into researching the Strategy and this will not be lost by delaying it until the lie of the land is clearer. The Container Deposit Scheme may mean that recycling can go to fortnightly for instance.</p> <p>I submit the adoption of the strategy should either be postponed until a clearer picture has emerged of the impact of State Government policy allows for better framing of available options, or be rewritten to include a decision matrix or flow chart that better illustrates Council's intended direction.</p> <p>One of the standout areas of indecision is combating illegal dumping. It is all good quoting the Environment Strategy and its target of reducing reported incidents of illegal dumping of Council owned and managed land by 50%, but deciding to tackle the problem just with increased signage along with maintaining enforcement is hardly likely to achieve the target. Situating the Shire's single resource recovery station at Rokewood understandably drives low patronage. It is obvious that RRCs are required at each end of the Shire so that we can take better responsibility for dealing with waste generated from within the Shire.</p> <p>To finish, as the document stands at the moment there is a very real sense it is more a box ticking endeavour rather than putting a properly signposted direction to the community for their appraisal. Waste collection remains a fraught issue for our ratepayers and the Council needs to be respectful of the need to seek a mandate from properly informed residents resulting from clearly stated intentions and associated costs.</p> <p>In its current form the document does not provide that.</p>
18			29/07/2020	<p>Letter from Barwon South West Waste Resource Recovery Group, link below.</p>

[\\Bani\01\groups\Works\Contracts\2018\GPS-RFQ17\\_Waste and Resource Recovery Strategy\Draft Waste Strategy\Submission Golden Plains Waste and Resource Recovery Strategy 2020\2707.pdf](\\Bani\01\groups\Works\Contracts\2018\GPS-RFQ17_Waste and Resource Recovery Strategy\Draft Waste Strategy\Submission Golden Plains Waste and Resource Recovery Strategy 2020\2707.pdf)



Barwon South West  
**Waste & Resource  
Recovery Group**

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Tuesday 28 July 2020

Dear Marina,

**Re: Draft Golden Plains Shire Council Waste and Resource Recovery Strategy**

Thank you for the opportunity to provide comment on the Golden Plains Shire Council Draft Waste and Resource Recovery Strategy.

Whilst Golden Plains is not part of the Barwon South West region, we enjoy a strong relationship with Council as a member of G21 Alliance and through our neighbouring Grampians Central West Waste and Resource Recovery Group.

We would like to commend Council on the development of this strategy and its ongoing commitment to waste reduction, and provide the following feedback on the strategy:

**Context**

- Please note that commencement of the Environment Protection Amendment Act 2018 has now been deferred until 1 July 2021.

**Challenges**

- Council's high contamination rate is another challenge that needs to be addressed. Contamination lowers the value of the recycling commodities and limits the end markets available for this material.

**Our services- Waste collection.**

- It would be beneficial for the strategy to include a target for the reduction of waste to landfill. These could potentially align with the Recycling Victoria targets, such as reduce the volume of waste to landfill by 80% by 2030 with an interim target of 72% reduction by 2025.





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### Recycling Collection

- Sustainability Victoria are currently developing a new statewide education and behaviour change campaign, which will include resources for educating residents on using their kerbside system. These campaign resources can assist with Council's planned education activities. The campaign coincides with the household kerbside reforms which will standardise recycling across the state and provide mandatory FOGO and glass services to all households across the state. These initiatives are supported by DELWP, Sustainability Victoria and WRRGs and are currently under development.
- It would be beneficial to set a target for contamination in recycling bins. For example, many councils aim for a less than 10% contamination.
- In accordance with the Recycling Victoria policy, Council will need to introduce a glass collection service by 2027 (in addition to any CDS infrastructure). Whilst the need for investigations on the service delivery model are included in the plan, it would be useful to recognise that the preferred delivery model will be identified by the end of September, when the draft kerbside transition plans are due.
- It is good to see that Council will support opportunities to increase the purchase of recycled products. As part of the Recycling Victoria policy, Sustainability Victoria will be supporting councils to increase recycled procurement over the next 12 months. They have recently launched [a directory of recycled products](#) to assist local and state government buyers.

### Food and greenwaste

- It is great to see Council considering the introduction of an organics collection service. If planned and delivered appropriately, organics services can significantly reduce the amount of organic waste going to landfill. This can significantly reduce greenhouse gas emissions and landfilling costs, which is particularly important given the planned landfill levy increases.
- It would be beneficial for the strategy to include a target for the reduction of organics to landfill. These could potentially align with the Recycling Victoria targets, such as reduce the volume of organic material to landfill by 50% by 2030 with an interim target of 20% reduction by 2025.
- It is recognised that Council needs to consider resource recovery, service costs and community feedback in deciding on the preferred organics service model. Given the Recycling Victoria Policy requires that all council introduce a FOGO service by 2030, it would be beneficial to reconsider the organics service options (and associated costs) to achieve this requirement. For example, option 1 does not meet the policy requirements and there would be additional costs for options 2 and 3 to provide a separate food organics service in accordance with the Policy.





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- It would be beneficial to consider a weekly FOGO service option, with the provision of a kitchen caddy. This option is considered to be best practice, achieving the highest rate of organics recovery. Other service changes could be considered to lower costs, such as reducing recycling collection to fortnightly.
- Like glass, it would be beneficial for the strategy to recognise that a preferred organics service model will be identified by September as part of the draft transition planning and subject to further community consultation.

#### Litter

- It is good to see the strategy includes several actions to address litter and illegal dumping. DELWP recently launched [LitterWatch](#), an online tool for monitoring litter across the state. This may be a useful tool in tackling the Shire's litter and illegal dumping issues.

#### Council waste

- BSWWRRG support the strategy's goals to reduce Council's organic waste and the phase out of single use plastics from Council's operations. It is positive that Council is leading by example. The strategy should also consider a goal for reducing the total waste to landfill. Developing a short action plan based on the baseline waste audits can assist in developing targets and prioritising waste reduction efforts.

#### Closed landfills and rehabilitation

- It is good to see the strategy includes the rehabilitation of two closed landfills. It may be beneficial that Council liaises with Grampians Central West WRRG and EPA regarding broader aftercare and monitoring requirements for these sites.

#### Community waste services

- BSWWRRG supports Council's approach to managing waste generated at community events and facilities. BSWWRRG is currently partnering with Bellarine Catchment Network to develop a guide to assist events organisers to reduce waste and litter from events. This guide, due for completion in November, will be available to all councils and event organisers to utilise.



Barwon South West  
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Should you have any further queries regarding our submission, please contact Belinda Bennett Manager Government Relations and Engagement at [belinda.bennett@bswwrg.vic.gov.au](mailto:belinda.bennett@bswwrg.vic.gov.au). We look forward to continuing our strong working relationship with Council and supporting the delivery of Council's Strategy.

Yours sincerely,

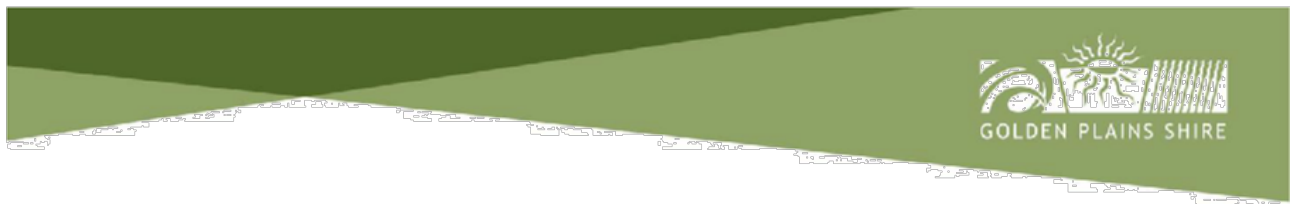
A handwritten signature in black ink, reading 'Ashley Pittard', with a stylized flourish at the end.

Ashley Pittard  
Executive Officer



# WASTE AND RESOURCE RECOVERY STRATEGY 2020 - 2030





# WASTE AND RESOURCE RECOVERY STRATEGY

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## Glossary

Term	Definition
<b>BSWWRRG</b>	Barwon South West Waste and Resource Recovery Group
<b>CDS</b>	Container Deposit Scheme
<b>EPA</b>	Environment Protection Authority
<b>E-Waste</b>	Electronic waste
<b>FOGO</b>	The combination in a single bin of Food Organics, Garden Organics
<b>G21</b>	an alliance of government, business and community organisations in the Geelong region
<b>GCWWRRG</b>	Grampians Central West Waste Resource Recovery Group
<b>RRC</b>	Resource Recovery Centre
<b>SWRRIP</b>	State-wide Waste and Resource Recovery Infrastructure Plan

### Disclaimer & Information Statement

Information, strategy, policy, and financial costing in this document has been collated using all available data obtained in 2019. Items in this document are subject to change over the 10-year strategy period based on many factors including but not limited to Government policy and direction, Council Plan and policy, market fluctuations, service provider availability and community expectations and feedback. Should any new or modified service not included, or omitted, from the current strategy be found to provide benefit to the environment and community, be required to meet Key indicators within the Council Plan or be identified by formal Councillor direction then Officers will review identified services and provided feedback in line with the intent of the strategy.

## Executive Summary

The waste industry is undergoing a period of challenges with the impacts of the recycling crisis still being felt and increased public interest in the way our waste is managed. While the waste and resource recovery sector is facing a number of challenges, there are opportunities for Council and residents to improve the way we manage our waste and reduce our impact on the environment.

The purpose of this Waste and Resource Recovery Strategy is to guide the way waste is managed in the Shire over the next decade (2020-2030).

At the heart of our waste strategy is a commitment to reduce the amount of waste we send to landfill. This will be achieved through reducing the amount of waste we generate, diverting more materials away from landfill and continuing to improve our residents' understanding of our bin system.

We have developed a range of achievable interim target and goals to meet over the next five years and aspirational goals to work towards by 2030. The actions which are presented in the Strategy have been tailored through community consultation, analysis of waste data, state government strategic directions and the state of current waste processing infrastructure.



### Why we need a strategy:



Our population is forecasted to grow over the next 10-years which we need to prepare for.



61.9% of the waste we generate is disposed of at landfill, which is not the best way to manage waste.



Our recycling bins have an average of 23% contamination, which reduces the effectiveness of recycling initiatives.



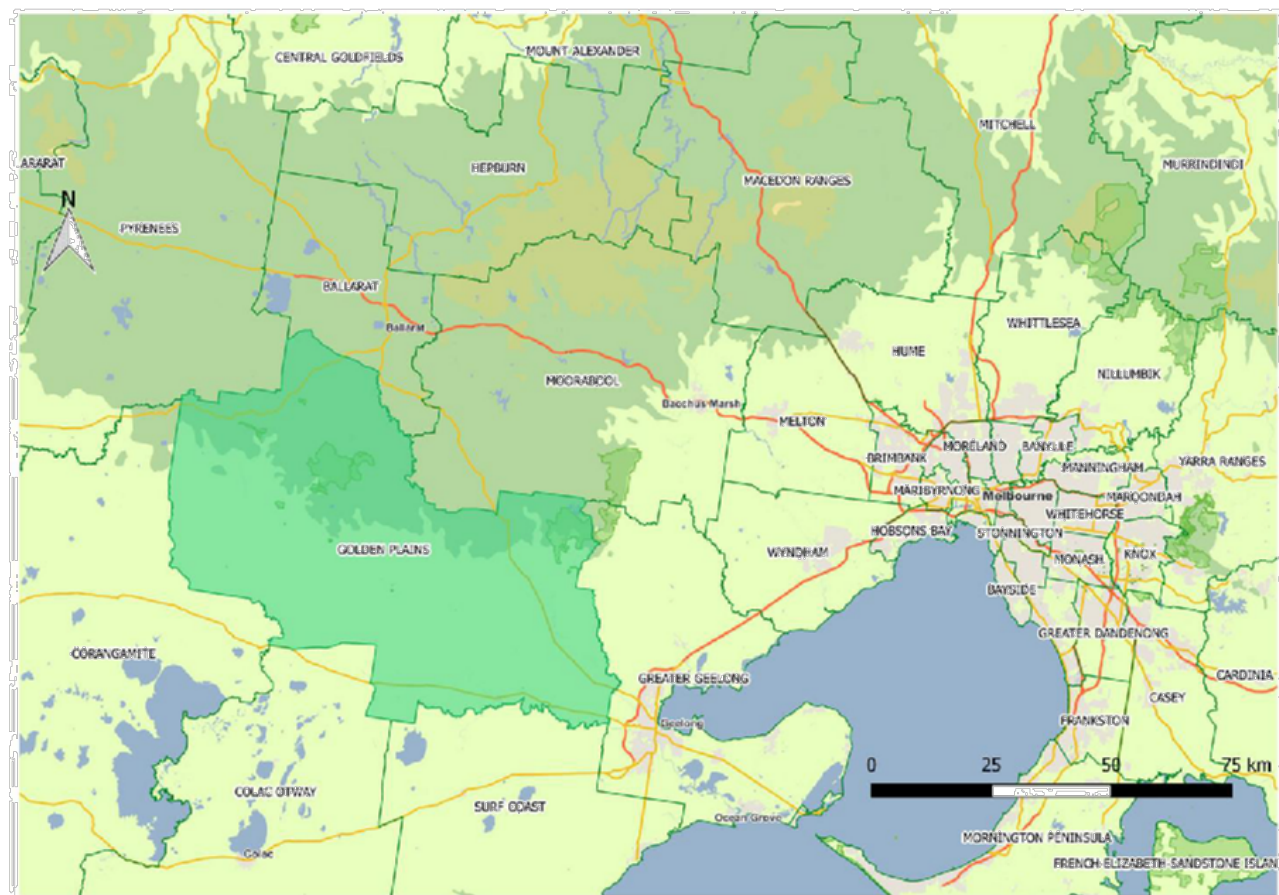
Almost half of the material in our garbage bins is organic material that can be diverted from landfill.

## About Us

### Golden Plains Shire Council

Golden Plains Shire has an estimated population of approximately 23,800 in 2020 which is expected to increase to over 32,000 by 2036<sup>1</sup>. As the fifth fastest growing municipality in rural Victoria, this increase in population will place pressure on essential services such as waste management, particularly in Bannockburn where the majority of the growth is expected to occur.

The Shire is approximately 2,700km<sup>2</sup> and has proximity to both Ballarat and Geelong, as shown in **Figure 1** below.



*Figure 1 Golden Plains Shire Location*

The Golden Plains Shire Council Plan (2017-2021) provides the vision, mission and values of the Golden Plains Shire to direct Council over the four-year term. Council's vision is 'a healthy, safe, vibrant, prosperous and sustainable community supported by strong leadership, transparent governance and community partnerships'.

### Why we need a Strategy

We have developed this Strategy to plan our waste management services in a way that meets the needs of our residents and contributes to the Council Plan. Our waste management activities are an important part of the services we provide our community.

<sup>1</sup> Source: <https://forecast.id.com.au/golden-plains>

Golden Plains Shire faces many challenges affecting how we manage waste between now and 2030, which are addressed in this document.

To drive this strategy in accordance with the Council Plan, the following vision has been developed:

#### VISION

Implement waste management and minimisation practices that are innovative, effective and reflect best practice.

## Context

### State Government Policy

Changes to Council's waste management systems need to align with state government policy directions and legislation.

#### Recycling Victoria

The Victorian Government's Department of Environment, Land Water and Planning have developed a new policy to build upon our existing resource recovery infrastructure and respond to market challenges. The policy, 'Recycling Victoria: A New Economy', explains that 'a circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources'. A transition towards a more circular economy, as opposed to the linear 'take, make dispose' economy can be achieved by:

- Designing products that last, can be repaired and recycled;
- Using products to their fullest value;
- Recycling more resources; and
- Reducing harm from waste and pollution

The Policy states that 'councils and communities are well placed to support the transition at a local level, and can benefit from circular initiatives such as repair cafes, community gardens and local sharing platforms'. The State government has committed to providing grants that support local community groups and enterprises seeking to reduce waste and improve recycling. Councils will also be able to apply for funding to participate in a circular economy.

Circular economy initiatives can grow the economy, create jobs and reduce our impacts on the environment, and Council will seek to support circular economy initiatives in the local waste and resource recovery sector.

A key component of the policy proposes a consistent state wide kerbside recycling system that includes:

1. Combined food and garden organics
2. Glass
3. Combined paper, plastic and metals
4. Residual material



### Infrastructure Plans

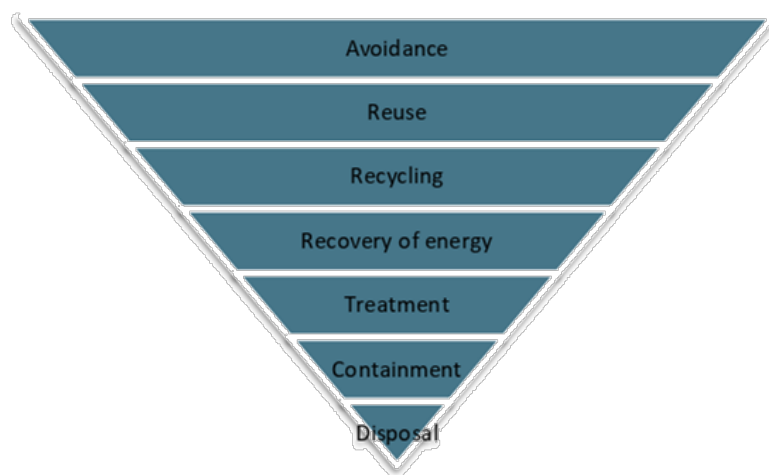
Victoria's 30 Year Infrastructure Strategy, released in 2016, outlines a pathway for the state's infrastructure, focusing on the implications of population increase and densification. Key themes include increasing resource recovery, banning E-waste to landfill and reducing reliance on landfills.

The State-wide Waste and Resource Recovery Infrastructure Plan (SWRRIP) 2018 is another key document guiding the future of the state's waste infrastructure. The SWRRIP presents a vision of an integrated statewide waste and resource recovery system that provides an essential community service to:

- Protect the community, environment and public health;
- Recover valuable resources from our waste; and
- Minimise long term costs to households, industry and governments.

### Environment Protection

The Environment Protection Act (2017) is the overarching governing legislation for waste and resource recovery in Victoria from July 2020 onwards (replacing the Environment Protection Act (1970)). The EP Act establishes the Environment Protection Authority (EPA) to regulate activity that causes environmental impacts and establishes the waste hierarchy which prioritises the use of resources. The hierarchy is shown in **Figure 2** below:



*Figure 2 Waste Hierarchy*

### Council Plan

A key action in the Council Plan is aiming to "further reduce waste to landfill and explore innovative waste management and resource recovery mechanisms through regional partnerships". This Strategy seeks to support that action.

The Council Plan also identifies key issues and priorities for the community. Those directly relevant to this Strategy include:

- Longer term, evidence-based community planning that recognises the Shire's changing demographic profile;
- Improving community engagement and responsiveness and increasing citizen engagement;
- Advocating to government and key stakeholders for the development of services and infrastructure;
- Increasing efficiency and effectiveness – doing more with less;
- Encouraging economic growth;
- Developing partnerships and working with others to achieve outcomes;
- Building community capacity and resilience; and
- Adapting to climate change.

## Environment Strategy 2019-2027

The Golden Plains Shire Council Environment Strategy outlines the strategic direction for environmental sustainability in the municipality over the 2019 - 2027 period. Theme 4.4 in the strategy provides a range of targets, including:

- Greenwaste removed from the community waste stream;
- 100% organic waste removed from waste stream of Council facilities by 2040; and
- 50% reduction in reported incidents of litter dumping on Council owned and managed land by 2027; and
- The development of this Waste and Resource Recovery Strategy

## Regional Waste and Resource Recovery Groups

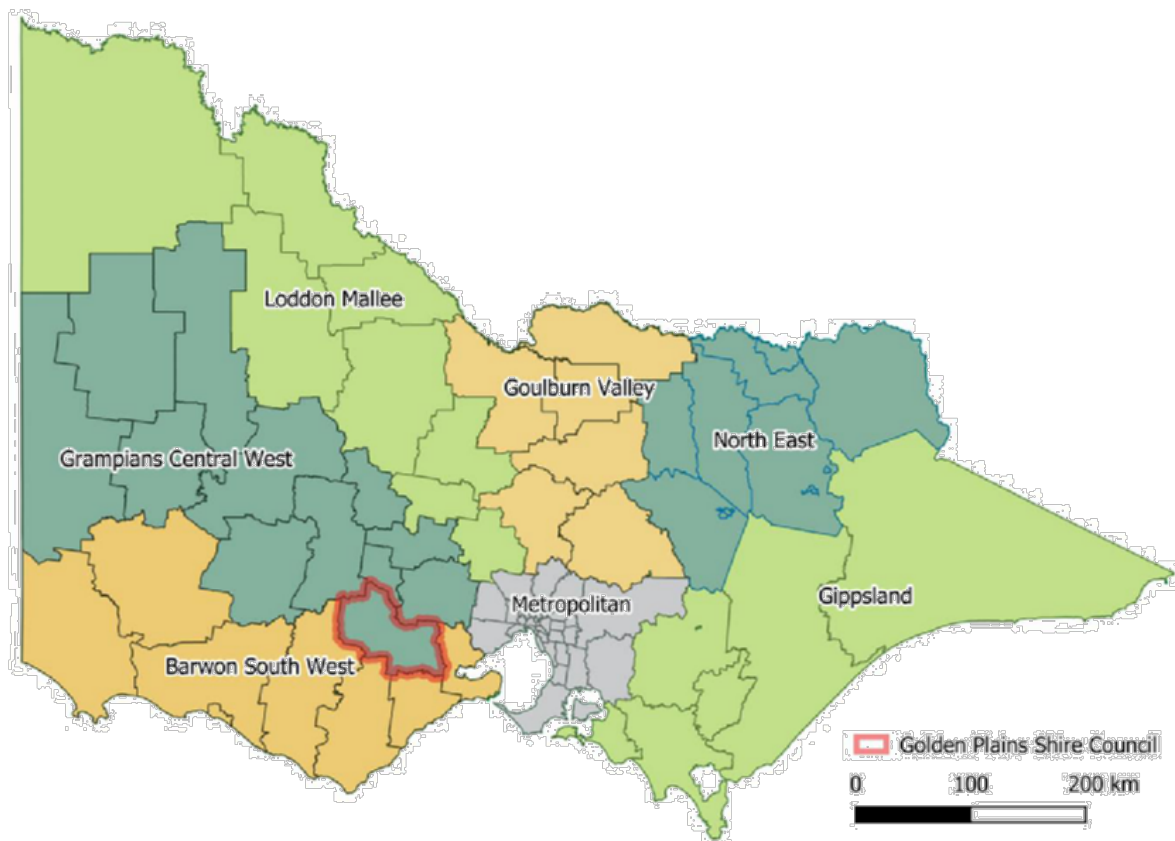
Golden Plains Shire is part of the Grampians Central West Waste Resource Recovery Group (GCWWRRG). GCWWRRG extends over 12 council areas and stretches from the boundary of Melbourne to Victoria's border with South Australia (**Figure 3**).

The seven regional waste and resource recovery groups are statutory authorities established under the Environment Protection Act that underpin the regulatory framework for waste management across the state. Each regional waste and resource recovery group has developed a Regional Waste and Resource Recovery Implementation Plan to demonstrate how the infrastructure needs identified in the SWRRIP can be implemented.

The GCWWRRG's Implementation Plan has four strategic objectives:

- Increase resource recovery and market development;
- Improve infrastructure and operations;
- Advance data collection and planning; and
- Foster relationships to optimise diversion from landfill.

While the Golden Plains Shire is part of GCWWRRG, we also share proximity to the Barwon South West Waste and Resource Recovery Group (BSWWRRG). The BSWWRRG extends along the south-western coastline of Victoria from Geelong to the South Australian border at Glenelg. Golden Plains Shire has fostered relationships with both regional waste groups and benefits from this through access to information, data and expertise.



*Figure 3 Victoria's Waste and Resource Recovery Regions*



## Current Waste Generation

The garbage and recycling kerbside service has collected an average of approximately 7,000 tonnes of garbage and recyclable material since 2012/13. In 2015/16 the waste collection schedule swapped from a weekly garbage and fortnightly recycling collection to a fortnightly garbage and weekly recycling collection. Following this change, the Shire's diversion rate (the amount of material that is diverted away from landfill and recycled) increased from 23% to 40%.

Council wishes to further increase the diversion rate, with a focus on diverting organic material. Since 2015/16, approximately 60% of Golden Plains Shire's waste has been landfilled, as shown in **Figure 4** below. In the last year (2018/19), the diversion rate decreased from 40.58% to 38.1% which may be attributed to the recycling service's disruption during the period. .

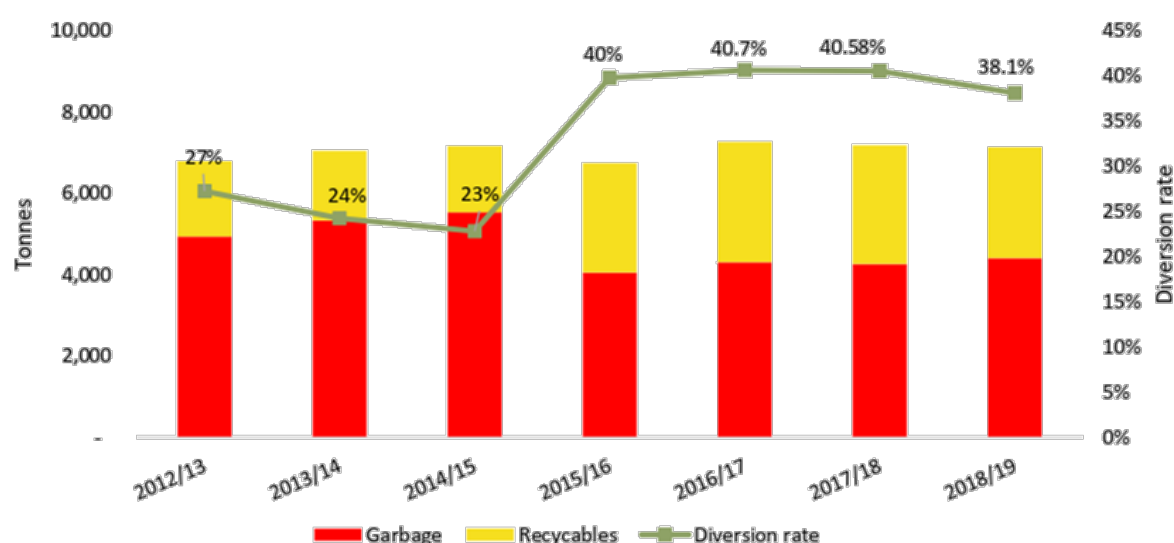


Figure 4 Waste Generation

## Challenges

The provision of waste management services is both guided and restricted by a range of challenges. These challenges are described below in **Table 1**:

Table 1 Challenges

Challenge	Description
<b>Population growth</b>	The municipality is home to a population of 22,859 people which is forecasted to grow to over 32,000 by 2036. The increase in residents will impact on the number of dwellings in the municipality, number of kerbside collections for the contractor to complete, and increased volumes of waste for disposal. Furthermore, the increase in population will be experienced differently across the municipality, with the highest increase expected around Bannockburn (80.86% increase between 2018 and 2036).
<b>Landfill levy</b>	The EPA requires the operators of landfills to pay a levy for each tonne of waste that is deposited at each licensed site. This is called the landfill levy and was introduced in

	<p>Victoria in 1992. Comparability between mainland states has eroded in recent years, and a November 2019 Inquiry into Recycling and Waste Management recommended that Victoria's levy be adjusted to remove the financial incentive to transport waste materials from other jurisdictions into Victoria. This was endorsed in the Recycling Victoria strategy which indicates municipal landfill levy charges will increase by 91% between 2020/21 and 2022/23. The increased landfill levies will increase disposal costs for council.</p>
<b>Rate capping</b>	<p>In 2015 the Victorian Government introduced a rate capping system called 'Fair Go Rates' which controls the general rate increases for councils during each financial year. The system impacts on the ability of local governments to deliver services to meet community expectations and needs.</p> <p>Waste charges can be separated out of the general rates and are not covered by the cap which enables Council to cover the rising costs of waste management services. Golden Plains Shire Council already have a separate 'Garbage and Recycling Charge'.</p>
<b>Recycling crisis</b>	<p>The introduction of China's 'National Sword' policy in early 2018 has impacted recycling markets globally. The policy involves a strict enforcement of recycled materials and acceptable levels of contamination between 0.5-1%. The recycling market in Australia has faced pressures to find alternative markets for the material. Local governments have experienced increased costs to deliver the recycling service and key recycling processors have gone bankrupt. Historically, councils received a small income per tonne of recycling material, whereas now they pay a significant gate fee per tonne. In recent times this fee has been increasing as market demand for recycled products diminishes resulting in lower commodity prices. Moving forward, there have been developments in state and local government procurement practices and the release of the Recycling Victoria policy which we expect to reverse this trend over the course of the Strategy period.</p>
<b>Food organics disposal</b>	<p>Food organics is waste from households or industry like food scraps and out of date products which are thrown away. Food organics is becoming an increasingly important waste material which requires management and makes up to 36% of the Victorian household waste stream. A 'food organics garden organics' (FOGO) collection has been implemented in many councils in Victoria and has been largely successful in metropolitan councils. The introduction of a FOGO collection to more rural councils such as the Golden Plains Shire may prove more difficult, given the distances between properties, availability of suitable processing facilities and ability of residents to manage organic waste on site (e.g. composting and worm farms).</p> <p>The Recycling Victoria policy includes the mandatory rollout of food and garden organics recovery services to households that don't already have access. This will commence in 2026-27, with all Victorians to have access to a bin or service by 2030.</p>
<b>Glass Recycling</b>	<p>The Recycling Victoria policy includes a commitment that all Victorians will have a new glass bin or access to glass services by 2027.</p>

## What We Found

A kerbside bin audit was conducted over December 2018 and January 2019. The audit investigated urban and rural bins separately and included both the garbage and recycling bins. Prior to the audit, Golden Plains Shire Council conducted an online survey about the waste services that the community use.

It is important to note that the kerbside bin audits capture a snapshot in time and are indicative only. Use of the bins and the material that residents place in them can change from week to week and seasonally.

### Garbage Bin

The bin audit revealed that between 68% and 74% of the Golden Plains garbage bins is recoverable material (recycling, garden waste and food waste).

Both the urban and rural garbage bins had a similar volume of organic waste (both food and garden), approximately 48%. However, urban garbage bins have a higher proportion of green waste (27%) than the rural bins (8%).

Up to 26% of the bins contained materials that could be placed in the recycling bin. The recyclables in urban garbage bins were mostly loose, whilst the rural bins had a higher percentage of bagged recyclables. While rural bins have much higher percentage of food waste, this may not indicate a higher volume compared to urban bins.

By comparison, Sustainability Victoria's 2013 bin audits found that on average, Victorian garbage bins contain 35% food and 10% recyclables.

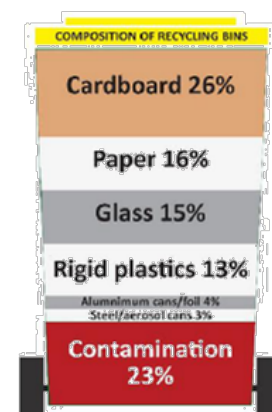


### Recycling Bin

On average recycling bins in the municipality contain 77% recyclables and 23% contamination.

The main contaminating items were residual waste (garbage), bagged organic waste, polystyrene and textiles/rags.

The state average contamination level is currently 10.4%, although the number varies significantly due to calculation methodology changes and service changes such as the move from 50L crates to 240L comingled bins, as well as the implementation of education campaigns.



### Waste Survey

A Waste Management Survey was conducted during November 2018. The survey aimed to gain an understanding of how the community currently manages their waste and satisfaction with the current kerbside collection services.

Furthermore, Golden Plains Shire Council sought to gather feedback on areas that need improvement. The survey was mailed to all households and businesses currently receiving a council service and was also made available online. This was followed by a more in-depth consultation involving a Focus Group and Conversation Posts.

A total of 1,209 people responded to the survey, or 14.6% of all householders and businesses. Most of these responses (80%) were in hard copy with the remainder completed online.

A key question in the survey was whether participants support the Council Plan's strategic direction to reduce the volume of waste going to landfill. The majority of respondents (73%) expressed support for the vision. Some of the other key findings included:

- 68.3% of respondents reported a positive level of satisfaction with the garbage service and 91.1% of respondents reported satisfaction with the kerbside recycling service;
- Participants were most unsure about how to dispose of batteries (23.3%), clothing (13.8%) and plastic toys (10%) which can help focus Council's waste education;
- The towns of Bannockburn and Inverleigh both showed a higher than average response for disposal of food waste in the garbage bin, with other areas using chickens or composting/worm farms to manage food waste;
- Most participants dispose of hard rubbish at a transfer station (34.3%) or op shop/charity (27%);
- The survey participants were asked what level of cost increase would be acceptable to help reduce waste to landfill. The majority of participants indicated that no increase was preferred. 18% of responses selected an answer that supported a cost increase.
- Approximately 30% of respondents were from Bannockburn and these respondents were typically less likely to support cost increases, and were less satisfied with the service overall.

Council have considered the results from the bin audit and waste survey, as well as other consultation, to develop this Waste and Resource Recovery Strategy. The tailored targets and actions are detailed in the following sections.

## We're Listening

The consultation process has kept residents engaged throughout the process and is described in **Figure 5** below. A summary of comments received in response to the Draft Strategy is attached in Appendix A – Summary of Public Consultation.



*Figure 5 Consultation Process*



## Our Services

### Garbage Collection

The Golden Plains Shire Council provide a fortnightly contracted kerbside garbage collection with 240L bins distributed to the community. The collection contractor utilises two landfill sites for the disposal of Golden Plains Shire's kerbside collected waste. Waste collected Monday - Tuesday, in the eastern portion of the Golden Plains Shire is taken to Wyndham landfill, and waste collected Wednesday - Friday in the western portion is disposed at Smythesdale landfill. The use of different disposal locations has been allowed to enable transport efficiencies for the contractor. Both the Wyndham and Smythesdale landfills have sufficient space available to operate beyond 2040.

The garbage service has collected an average of 4,200 tonnes per annum (tpa) since 2015/16, including waste from public place litter bins and other council facilities. This is expected to grow to over 5,000 tpa by 2025.

<b>Our Targets</b>	The Golden Plains Shire Council has committed to reducing the amount of waste we send to landfill. Our interim target is to align with the state average diversion rate of 44%, with an ultimate goal of no recoverable waste sent to landfill.
<b>What We've Heard</b>	Sustainability Victoria state that the top items we dispose of incorrectly are coffee cups, plastic bags, foil and soft plastics.  From our bin audits, we have found that recyclable materials exist in the garbage bin. Golden Plains Shire residents in particular need support to correctly dispose of cardboard and rigid plastic packaging (plastics numbers 1-5).
<b>How We've Listened</b>	Golden Plains Shire Council will provide support by updating our communications strategy to help educate residents.

### Recycling Collection

The recycling collection is a weekly service offered to all residents through a 240L kerbside bin. The recycling collection has experienced disruption as a result of the recycling crisis. A new processing contract was let in late 2019 as part of a G21 collaborative procurement initiative. The G21 is an alliance of government, business and community organisations in the Geelong region. The G21 collaboration enables the participating councils to negotiate a lower rate per tonne for the receipt of material. The price is subject to a maximum contamination rate, any contamination over the agreed rate incurs additional costs for haulage and disposal which highlights the need to manage the materials we put in the recycling bin.

Glass, particularly broken glass, is an issue when it contaminates other recyclable materials such as paper and plastic and makes them more expensive to recycle. It is estimated that collecting glass separately to other materials can increase the value of recycled glass, plastic, paper and cardboard by up to \$210 million annually across Victoria. The new Recycling Victoria policy includes the mandatory introduction of separate glass collections across Victoria by 2027 to improve the ability of processors to recycle materials in these collections, and Golden Plains Shire will be responding to this new mandate.

<b>Our Targets</b>	<p>To reduce contamination to under the maximum allowable contamination rate and to align with the state average contamination as reported annually.</p> <p>Establish access to glass collections for all Shire residents by 2027.</p>
<b>What We've Heard</b>	<p>The bin audit showed that the recycling bins have an average of 23% contamination. In 2017/18, the state average contamination rate was 10.4%.</p> <p>Given the recent disruption to the recycling system in 2018 and 2019, residents want to remain informed of changes to the service.</p> <p>The bin audit showed that the main recyclables placed in the general waste bin are cardboard and plastics. The waste survey also showed that residents need support to correctly recycle batteries, plastic toys and clothing.</p>
<b>How We've Listened</b>	<p>Council's focus for recycling is service continuity and keeping residents informed of the service.</p> <p>Council will continue to communicate and educate residents on the recycling service and work with the recycling processor to ensure an effective system.</p> <p>Council will investigate options for separate glass collections such as a kerbside glass bin or access to a Container Deposit Scheme location, including consideration of the most appropriate solution for different parts of the shire.</p> <p>Education for the community will improve correct use of the bin system which will be facilitated by updating the communications strategy and providing targeted education for specific materials.</p> <p>Council will also investigate a procurement policy to increase the purchase of recycled products to help support and develop the recycling market, in line with the Recycling Victoria policy.</p>

## Food and greenwaste

The release of the Recycling Victoria policy in April 2020 includes a commitment to all Victorians receiving access to a food and greenwaste service by 2030.

Golden Plains Shire has recently investigated residents' preferences for such a service. A consultation exercise was carried out in October 2019 to gain feedback from residents on a range of new options for collecting organic waste.

The options were as follows:

- Option 1 (Current Service) is to continue with a weekly recycling and fortnightly residual bin, with no dedicated kerbside collection from organic waste. (Total diversion rate from landfill 38%)
- Option 2 involves the provision of a fortnightly garden waste kerbside collection to Bannockburn residents on small blocks (those with a sewerage connection – it is assumed that properties large enough to manage septic tank systems can also manage their own garden waste) (Diversion rate 45%)
- Option 3 involves the provision of a fortnightly garden waste kerbside collection to all shire residents (Diversion rate 45%)
- Option 4 involves the provision of a fortnightly food and garden (FOGO) waste kerbside collection to Bannockburn residents on small blocks (those with a sewerage connection – it is assumed that properties large enough to manage septic tank systems can also manage their own garden waste) (Diversion rate 46%)
- Option 5 involves the provision of a fortnightly food and garden (FOGO) waste kerbside collection to all shire residents (Diversion rate 52%)

Council received a total of 723 households responded, 160 of which were received as hard copies and 563 completed online. The total responses represent 8% of the Shire's kerbside collection network. A total of 45% (322) of the responses were from Bannockburn, representing 27% of all Bannockburn households.

**There was no overwhelming support for any option.** Only two responses had a supporting majority; Option 1 - Current Service with 51.5% of votes agreeing, and Option 2 - Garden Waste in Bannockburn with 53.1% of votes agreeing. It is important to note that for Option 2, more of the votes came from residents who would not be receiving the service, than from those in Bannockburn who would receive the service and be paying for it.

The overall results were as follows:

Option	% Agree	% Disagree	Additional Cost per year
<b>Option 1 - Current Service</b>	51%	49%	No change
<b>Option 2 - Garden Waste in Bannockburn Only</b>	53%	47%	Additional \$80-\$90 for relevant Bannockburn properties
<b>Option 3 - Garden Waste in Whole Shire</b>	31%	69%	Additional \$95 to \$105 for all properties with a dwelling
<b>Option 4 - FOGO in Bannockburn Only</b>	43%	57%	Additional \$100-\$110 for relevant Bannockburn properties
<b>Option 5 - FOGO in Whole Shire</b>	25%	75%	Additional \$120 to \$130 for all properties with a dwelling

<b>Our Targets</b>	<p>Council is committed to removing greenwaste waste from the community waste stream in the Environment Strategy (2019-2027) and this document seeks to continue that commitment.</p> <p>In accordance with the Recycling Victoria policy, Council will provide access to organic waste services to all residents by 2030.</p>
<b>What We've Heard</b>	<p>The results of the consultation for an organics collection service were inconclusive. While residents were interested in the implementation of a new service, concerns over the cost of the service and whether it should be rolled out to specific townships or Shire-wide were prevalent.</p> <p>Recycling Victoria includes the mandatory rollout of food and garden organics recovery services to households by 2030.</p>
<b>How We've Listened</b>	<p>Golden Plains Shire Council will continue to investigate and determine the most appropriate means of diverting organic material from landfill. This may include a service for the whole of Golden Plains Shire, or a service in Bannockburn only initially.</p>

## Transfer Stations

Golden Plains Shire Council currently operate a transfer station for the municipality, located in Rokewood. This and other nearby transfer stations are shown in Figure 6 below. The Rokewood Resource Recovery Centre (RRC) is located on a closed landfill and has been run by council staff since August 2016. The site is open on Sundays from 10am to 3pm.



The Rokewood RRC is a way for residents to recycle or dispose of larger unwanted items. The following materials are accepted at the site:

- Household waste
- Green and timber waste
- E-waste
- Fridges, freezers, and air conditioners
- Gas cylinders & fire extinguishers
- Mattresses
- Tyres (car, truck, tractor)
- Commingled recyclables
- Scrap metal
- Motor oil
- Vehicle batteries
- Agricultural chemical containers (through the DrumMuster program)

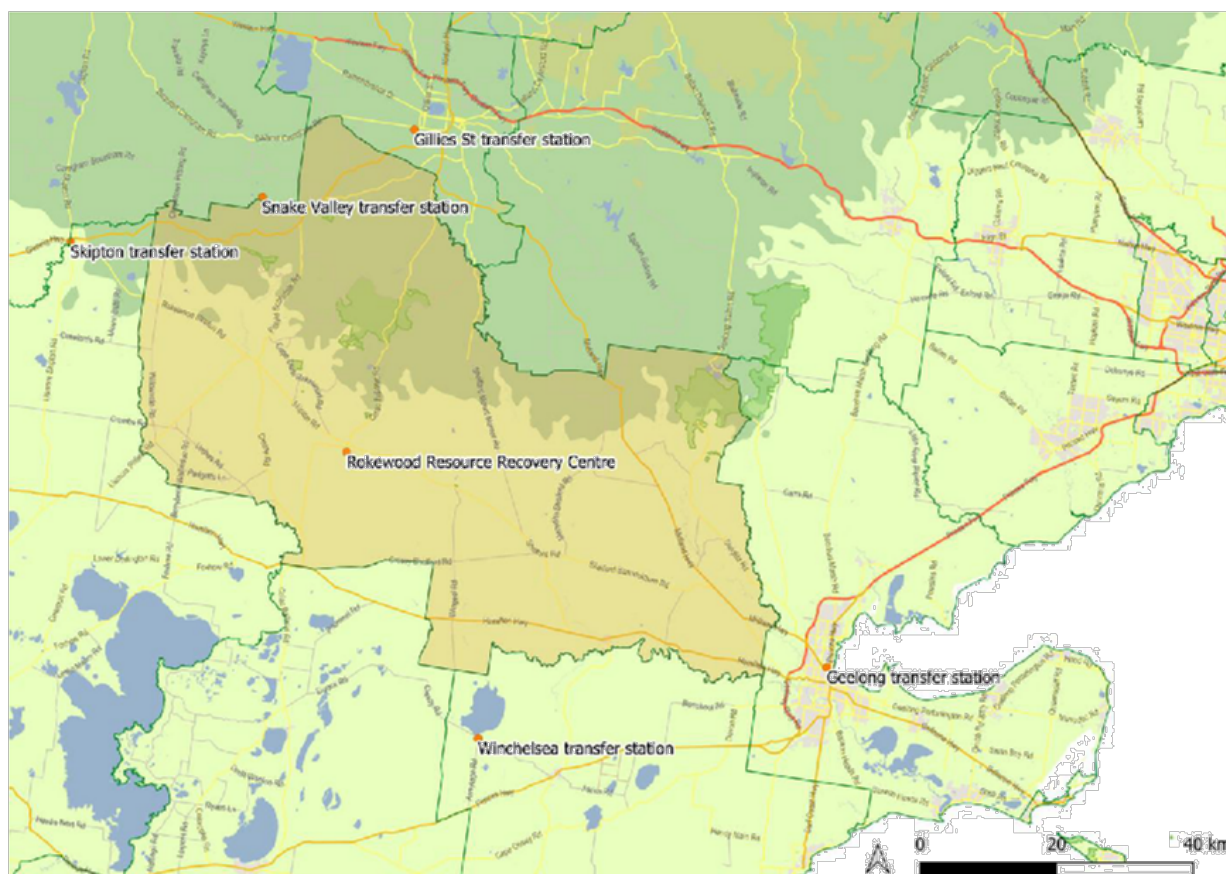


Figure 6 Transfer Stations

<b>Our Targets</b>	Increase the volumes of recycled material at the Rokewood Resource Recovery Centre and support the community to recycle materials banned from landfill.
<b>What We've Heard</b>	Survey results indicated that most residents dispose of hard rubbish at a transfer station (34.3%) or op shop/charity (27%). Most people who used a transfer station used Geelong's Douro St facility or Ballarat's Gillies St facility. Only 6.8% of transfer station users went to Rokewood.
<b>How We've Listened</b>	Given the low patronage of the Rokewood Resource Recovery Centre, Council will conduct a feasibility study into the operation of the facility. In the meantime, increasing community awareness and patronage of the facility will help to increase volumes of recycled material at the facility.



## Education

Council has an annual budget for the provision of waste education and provides accessible information through its website. Regular community conversation posts are also held in the community for residents to talk with Council officers. Consistent and ongoing education is a critical component of a successful waste management strategy.

Education can improve the community's understanding of the kerbside collection services and reduce contamination in the various material streams. Research has demonstrated that contamination in the recycling bin is frequently a result of a lack of knowledge over what can and can't be recycled, rather than negligence.

Many people learn about recyclable items and the correct use of their bins through educational stickers on the bins. There is currently no specification in the contract for the supply of garbage bins to include an educational sticker on the bin.

<b>Our Targets</b>	Continue to provide ongoing and accessible waste education to the community.
<b>What We've Heard</b>	The waste survey showed that most residents want more information on what items can and can't go into the recycling bin and how to recycle more items. The survey also showed that most residents rely on the educational stickers on bins to direct the correct disposal of waste in their bin system.
<b>How We've Listened</b>	<p>Council's waste education will have a focus on the kerbside recycling system and also on methods to avoid producing waste in the first place to align with the waste hierarchy.</p> <p>To help educate residents with contaminated bins, council will develop an education program including stickers for the correct disposal of waste. Council will continue visual bin inspections and apply stickers to the bins during the inspection should contamination be seen.</p>

## Litter and illegal dumping

Illegal dumping is both an amenity and environmental issue. Dumped loads of greenwaste can create fire hazards, and other materials, such as fluorescent tubing, can contaminate the environment. Illegal dumping of waste occurs throughout the municipality and several key hot spots have been identified throughout the shire, the locations are presented in the table below.

Illegal dumping hot spots
Harvey Road Bannockburn
Brislane Road Murgheboluc
Parker Road Sutherlands Creek
Bakers Bridge Road Sutherlands Creek/Gheringhap
Sharkeys Road and Robbs Road Sutherlands Creek

<b>Our Targets</b>	Council's Environment Strategy (2019-2027) provides a target to reduce reported incidents of litter dumping on Council owned and managed land by 50% by 2027.
<b>What We've Heard</b>	There were 108 reports of waste dumping, of both major and minor volumes, in 2017/18.  The conversation posts showed that the community is concerned about the amenity impacts of litter and illegal dumping throughout the Shire.
<b>How We've Listened</b>	Council will install signage at each litter dumping hotspot to deter this activity and continue to monitor the amount of dumped rubbish in the municipality. Reporting of rubbish dumping and littering will also be encouraged, and enforcement of dumped rubbish fines and notices will be maintained.  'Adopt-a-Spot' programs have been implemented in other councils to encourage community groups and schools to get involved. These programs can also encourage a sense of responsibility and pride for the 'spots'. Council will investigate the implementation of a similar program.

## Council waste

There are Golden Plains Shire Council offices and depots located throughout the shire. Based on the number of staff, it is estimated that Council produces approximately 57 tonnes of waste per year, the majority being paper and cardboard waste. The Golden Plains Shire Council Environment Strategy provides a council-specific target for waste management: 100% organic waste removed from waste stream of council facilities by 2040.

<b>Our Targets</b>	Council is committed to delivering good governance and leadership, as stated in our Council Plan strategic directions. We will work towards the 2040 goal of 100% organic waste removed from council facility waste streams by meeting an interim target of a 50% reduction by 2025.
<b>What We've Heard</b>	Residents of Golden Plains Shire want a Council that can lead the way.
<b>How We've Listened</b>	Council will need to develop a means of tracking internal waste generation to ensure that the goals are met. To reduce waste, we will: <ul style="list-style-type: none"> <li>- Implement a Council food waste recovery system;</li> <li>- Conduct a bin audit on the council waste stream to develop baseline for target setting</li> <li>- Implement a ban on single use plastics in Council offices; and</li> <li>- Educate Council employees to reduce waste generation in the workplace by our own waste education staff.</li> </ul>

## Closed landfills and rehabilitation

Landfills that have closed still present an environmental risk for a long time after the site has ceased to accept waste. These risks can be in the form of leachate, a liquid formed by decomposing waste and rainfall, and through the production of harmful gas. Rehabilitation of these sites helps to mitigate the environmental risks. There are four closed landfills in the Golden Plains Shire; Bannockburn Tip, Meredith Tip, Rokewood Tip and Teesdale Tip. The Bannockburn and Meredith Tips have both completed rehabilitation. Rokewood and Teesdale Tips have commenced rehabilitation.

In order to fund the rehabilitation works, Council will continue to build its available waste budget. At present, the estimated cost of the landfill rehabilitation is being recovered through the waste charges over a 10 year period. The waste charge is reviewed annually and the funding strategy for landfill rehabilitation could change over time to include other sources of funding such as loans.

<b>Our Targets</b>	By 2025, Council will complete the rehabilitation of Rokewood Tip. By 2030, Council will complete the rehabilitation of Teesdale landfill.
<b>What We've Heard</b>	Residents recognise the importance of reducing reliance on landfills and increasing the amount of material recycled.
<b>How We've Listened</b>	Council is committed to no new landfills/tips that receive household waste within the municipality.

## Community waste services

### Community Facilities and Events

There are a range of community facilities within the Golden Plains Shire that are owned and run by Council or local community groups. The facilities are mostly community meeting rooms and sporting facilities. The waste services and supply of bins to community facilities that are owned or managed by council or a local committee are funded by the waste management charge.

The Golden Plains region is renowned for its music festivals which typically organise waste management through private contractors. Smaller events will either supply their own waste management or book Council's Community Events Rubbish Trailer.

<b>Our Targets</b>	Continue to provide waste infrastructure at community events and ensure that waste generated at community facilities is managed responsibly and sustainably.
<b>What We've Heard</b>	Residents value community events which bring people and business to the Shire.
<b>How We've Listened</b>	Council will work with community users at Council facilities to collect baseline information and develop programs to improve waste recovery.  Council will investigate a waste wise policy that discourages problematic wastes such as single use plastics at Council events and community facilities.

### Public Place Bins and Street Sweeping

There are approximately 200 public place bins within the Golden Plains Shire. These bins consist of both garbage and recycling receptacles. The public place bins are typically collected at the same frequency as the kerbside bins (fortnightly garbage collections and weekly recycling collections).

Council recognises the need to conduct an audit of public place bins to provide a greater level of understanding for the service. An audit will also identify areas of high and low usage, enabling collection frequencies to be tailored to locations. An option for consideration for community bins is installing 'Smart Bins'. These bins can record waste volumes and send alerts when collection is required, potentially reducing truck movements throughout the shire.

Smart bins can also include a compaction unit to decrease the required collection frequencies and increase bin capacity.

Council also provide a street sweeping service to specific areas in the community. The material collected from the sweeping is disposed at landfill.

<b>Our Targets</b>	Council will continue to provide a public place bin and street sweeping service.
<b>What We've Heard</b>	Public place garbage and recycling bins are used differently throughout the Shire which requires different collection frequencies.
<b>How We've Listened</b>	<p>Council will conduct an audit on public place bins to determine the appropriate distribution and collection frequency for the service. The audit will lead to a more efficient, cost effective service for the community.</p> <p>We will investigate the roll-out of Smart Bins to replace litter bins.</p> <p>We will continue to provide a street sweeping service and reassess the specified areas to extend the service if required.</p>

### Emergency Events

Golden Plains Shire has a long history of natural disasters; primarily fires and floods. The Shire's surrounding landform consists of forested hills with a high fuel load, grasslands and volcanic plains. These features increase the threat of bushfire to the community. Historically, waste from emergency events has been managed at the Rokewood landfill which closed in 2015. Emergency events since 2015 have typically been small-scale traffic incidents such as truck roll-overs which are managed on a case-by-case basis.

<b>Our Targets</b>	To have an Emergency Management Plan in place that addresses waste generated from emergency situations.
<b>What We've Heard</b>	The Shire has a history of fires and flooding which generate wastes.
<b>How We've Listened</b>	Council will prepare an Emergency Waste Management Plan by 2022

### National and State Advocacy

Throughout the community consultation, many residents called for Council to play a greater advocacy role in a range of state and national waste and resource recovery issues. These issues include a Container Deposit Scheme for Victoria, soft plastics recycling, waste to energy and circular economy initiatives.



### Container Deposit Scheme

A container deposit scheme (CDS) works by adding a deposit to the price of products in plastic, glass and metal cans. The deposit is then returned to the customer when they take the container to a dedicated facility for recycling.

The Victorian state government has announced that a CDS will be in place by 2023/24 in addition to the introduction of separate glass collections for households.

The benefits of CDS include:

- A reduction in litter;
- A financial incentive to return containers encourages community involvement in resource recovery;
- Changing attitudes to see the materials as a resource with value, not as waste;
- Improving the purity of recycled products which supports the recycling market where contamination is a major issue. Better purity also reduces our reliance on virgin materials; and
- Potential to reduce contamination in our kerbside recycling system

<b>Our Targets</b>	Support a Container Deposit Scheme in Victoria.
<b>What We've Heard</b>	Recycling Victoria policy supports the introduction of a CDS by 2023.
<b>How We've Listened</b>	Council will support the Container Deposit Scheme proposed by the Victorian Government and support other alternative means of improving the resource recovery of containers in the recycling system, including glass collections through an appropriate mechanism.

### Soft Plastics Recycling

Soft plastics recycling is a big issue for kerbside recycling and is one of the main contaminants in the system. Soft plastic includes items like plastic packaging, bags and other plastic items which can be scrunched. Most council recycling collections consider soft plastics as contamination because they interfere with the machinery at the materials processing facility.

While the waste hierarchy shows we should avoid waste generation, soft plastic is often unavoidable, especially whilst food shopping. However, voluntary product stewardship programs such as REDcycle are available to help divert soft plastics from landfill. REDcycle use a third-party manufacturer to produce a variety of products such as outdoor furniture and bollards.

<b>Our Targets</b>	Improve soft plastics recycling in the Shire.
<b>What We've Heard</b>	Residents would like more information on recycling soft plastics, as well as education on how to recycle a wider range of items.
<b>How We've Listened</b>	<p>Council will investigate soft plastics recycling options for Golden Plains Shire and provide further education.</p> <p>Council will also investigate a procurement policy to increase the purchase of recycled products to help support and develop the recycling market, in line with the Recycling Victoria policy.</p>

### Waste to Energy

Waste to energy, or energy from waste, is the process of generating energy (and other by-products), using waste as the fuel source. Waste to energy technologies are separated into two broad categories: thermal and biological. Thermal waste to energy includes the technologies that use heat to turn waste into energy such as electricity, heat or fuel. Biological processes generally turn green waste and food waste into biogas and other products using microbiological processes such as anaerobic digestion.

Waste to energy is an established management practice for waste overseas and it is currently gaining traction in Australia. While there are concerns that the use of technologies such as incineration may hinder resource recovery efforts, waste to energy is broadly supported by the Victorian Government for material that would otherwise go to landfill. In this case, higher order recovery options (such as waste avoidance or recycling) have typically already been tried.

The City of Ballarat have positioned themselves as a 'waste to energy ready' municipality and have proceeded with investigations into the development of a facility. Although such a facility is likely to take years before it is operational, Golden Plains Shire Council will continue to stay informed of the progress and generally supportive of this alternative to landfill.

Barwon Water and neighbouring G21 Councils have partnered to investigate options for a renewable organics network. The Regional Renewable Organic Network will seek solutions to divert organic wastes from landfill, use this waste to generate dispatchable renewable energy and soil fertiliser products, and deliver a project in a commercially viable manner, to contain waste and energy costs.

<b>Our Targets</b>	Support the development of an appropriate waste to energy facility that is available to the region.
<b>What We've Heard</b>	Waste to energy is gaining traction in Australia, with the City of Ballarat showing an interest in developing a facility.
<b>How We've Listened</b>	To be informed of Waste to Energy projects locally and regionally, Golden Plains Shire Council will engage with the City of Ballarat, Greater Geelong, the Regional Renewable Organic Network and the regional waste management groups in an observational role for the development of Waste to Energy facilities.

### Circular Economy

A circular economy seeks to retain resources in the system for as long as possible which reduces our dependence on virgin resources and extracts the most use out of them. Circular economy initiatives can grow the economy, create jobs and reduce our impacts on the environment.

The Victorian Government's policy, 'Recycling Victoria: A New Economy', explains that 'a circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources'. A transition towards a more circular economy, as opposed to the linear 'take, make dispose' economy can be achieved by:

- Designing products that last, can be repaired and recycled;
- Using products to their fullest value;
- Recycling more resources; and
- Reducing harm from waste and pollution

The Policy states that ‘councils and communities are well placed to support the transition at a local level, and can benefit from circular initiatives such as repair cafes, community gardens and local sharing platforms’.

<b>Our Targets</b>	Transition the Golden Plains Shire towards a Circular Economy where resources are used to their fullest value.
<b>What We’ve Heard</b>	The Victorian Government’s policy, ‘Recycling Victoria: A New Economy’, contains support for product repair and recycling initiatives, as well as support for recycled product markets.
<b>How We’ve Listened</b>	Council will seek to support circular economy initiatives in the local waste and resource recovery sector, in line with the Recycling Victoria policy.

## Detailed Actions

The table below is a summary of the current performance measures, targets and actions developed for waste management over the next ten years. Priority actions outlined in this strategy above are highlighted.

*Table 2 Performance, targets and actions*

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
Garbage collection	A diversion rate of 44% to align with the 2017/18 state average <sup>2</sup> .	No recoverable material to landfill.	<p>Golden Plains Shire currently have a diversion rate of 38.1%.</p> <p>The most recent bin audit has shown that the waste bin has an average of 23.3% recyclables by weight which can be diverted from the bin. The main recyclables placed in the garbage bin are cardboard and plastics.</p> <p>The bin audit also shows that residents place greenwaste in their garbage bin. Results for the urban bins show a higher percentage of greenwaste (27%) within the garbage bin compared to the rural bins (8%).</p> <p>Sustainability Victoria state that the top items we dispose of incorrectly are coffee cups, plastic bags, foil and soft plastics.</p>	<p><b>Golden Plains Shire Council will update our communications strategy to help educate residents.</b></p> <p>Council is committed to removing greenwaste waste from the community waste stream in the Environment Strategy (2019-2027) and this document seeks to continue that commitment.</p>
	Support the development of an appropriate waste to	The National Waste Policy has a binding target to reduce landfill	Waste to energy is gaining traction in Australia, with the City of Ballarat showing an interest in developing a facility.	<b>To be informed of Waste to Energy projects locally and regionally, Golden Plains Shire Council need to engage with the City of Ballarat, Greater Geelong and the regional waste management</b>

<sup>2</sup> Victorian Local Government Annual Waste Services Report 2017/18



Service area	Interim target - 2025	Aspirational target	Current Performance	Action
	energy facility that is available to the region.	to a maximum of 10 per cent of municipal waste by 2030.	There are currently no alternatives to landfill for residual waste for the Golden Plains Shire. There are investigations into developing Waste to Energy facilities in Metro Melbourne and regionally which Golden Plains Shire Council needs to continue to be informed on for future planning.	<b>group in an observational role for the development of Waste to Energy facilities.</b>
		No recyclable material in garbage bin.	<p>24.42% by weight of Golden Plains Shire's garbage bins is recyclable material (average).</p> <p>On average in Victoria, 20% of the waste sent to landfill consists of material that could be placed in the recycling bin<sup>3</sup>.</p> <p>Golden Plains Shire residents in particular need support to correctly dispose of cardboard and plastics 1-5</p> <p>The 2018 waste survey showed that most residents rely on the educational stickers on bins to direct the correct disposal of waste in their bin system. The collection contractor has a system of stickering bins incorrectly placed at the kerbside.</p>	<p>Council will provide the support by updating their communications strategy to help educate residents.</p> <p>To help educate residents with contaminated bins, stickers need to be applied to educate the correct disposal of waste and recyclables too. Council will continue bi-annual visual bin inspections and sticker bins during the inspection should contamination be seen.</p> <p>There is currently no specification within the contract for the supply of garbage bins to include a sticker on the bin. Just like the recycling bins, all garbage bins will include a list of permitted and non-permitted contents.</p> <p>The introduction of an electronically readable barcode on kerbside bins will be investigated. Council will investigate the use of barcode scanners on trucks to electronically log collected bins, as well as the option of weighing bins during collection.</p>

<sup>3</sup> MWRRG, Kerbside Recycling In Metropolitan Melbourne - Social Research Summary Report 2010

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
	No increase in missed bins.	A 25% reduction in missed bin requests, equating to a maximum of 145 missed bin requests per annum.	In 2017/18 there were 194 requests to Council's customer service system regarding missed bins.	A barcode system would also enable tracking of bins that are repeatedly missed for further investigation by Council.
<b>Recycling collection</b>	To reduce contamination to under the maximum allowable contamination rate and to align with the state average contamination as reported annually.	No contamination in the recycling bin.	<p>The bin audit showed that:</p> <ul style="list-style-type: none"> <li>the recycling bins have an average of 23% contamination. (The state average for kerbside contamination is 10.4% for 2017/18.)</li> <li>the major contaminants are residual waste (garbage), bagged waste, garden waste and food waste.</li> <li>the main recyclables placed in the general waste bin are cardboard and plastics.</li> </ul> <p>The waste survey also showed that residents need support to correctly dispose of batteries, plastic toys and clothing.</p> <p>Given the recent disruption to the recycling system in 2018 and 2019, residents want to remain informed of changes to the service.</p> <p>Visual bin audits are conducted on a bi-annual schedule to investigate contamination and volumes of waste. A recording and reporting system of</p>	<p><b>Council's focus for recycling is service continuity and keeping residents informed of the service.</b></p> <p><b>Education for the community will improve correct use of the bin system which will be facilitated by updating the communications strategy and proving targeted education for specific materials.</b></p> <p><b>Council will also investigate a procurement policy to increase the purchase of recycled products to help support and develop the recycling market, in line with the Recycling Victoria policy.</b></p> <p>Educational bin stickers on correct disposal of materials are important to combat contamination.</p> <p>Council will utilise the GCWWRRG education officer to support Golden Plains Shire Council to deliver the communications strategy and other education programs.</p> <p>Golden Plains Shire Council will continue to conduct the visual bin audits which will inform areas of high contamination and monitor trends in the waste and recycling system.</p> <p>Council will continue to work with the collection contractor to identify contaminated bins and deliver education to those targeted residences.</p>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
			<p>contaminated bins through this audit can target repeat offenders.</p> <p>The kerbside collection contractor must provide regular reports on contamination statistics and record any identified contaminated bins.</p> <p>Golden Plains Shire Council is a member council of the GCWWRRG which has a regional education officer to support the region.</p>	
	Improve soft plastics recycling in the Shire		Residents would like more information on recycling soft plastics, as well as education on how to recycle a wider range of items.	<b>Council will investigate soft plastics recycling options for Golden Plains Shire and provide further education.</b>
	Establish access to glass collections for all Shire residents by 2027.	No glass disposed of in recycling collections	<p>Recycling Victoria policy supports the introduction of a CDS by 2023.</p> <p>Separate glass collections are not provided in the Shire.</p>	<p><b>Council will support the Container Deposit Scheme proposed by the Victorian Government and support other alternative means of improving the resource recovery of containers in the recycling system, including glass collections through an appropriate mechanism.</b></p> <p>Council will investigate the use of Rokewood Transfer Station as a site for CDS infrastructure.</p> <p><b>Council will investigate options for separate glass collections such as a kerbside glass bin or access to CDS infrastructure, including consideration of the most appropriate solution for different parts of the shire.</b></p>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
	No increase in missed bins.	A 25% reduction in missed bin requests, equating to a maximum of 145 missed bin requests per annum.	In 2017/18 there were 194 requests to Council's customer service system regarding missed bins.	<p>The introduction of an electronically readable barcode on kerbside bins will be investigated.</p> <p>In future collection contracts, Golden Plains Shire Council will investigate barcode scanners on trucks to electronically log collected bins. The system would enable tracking of bins that are repeatedly missed for further investigation by Council.</p>
<b>Organics collection</b>	<p>Continue to investigate services for the diversion of organic material from landfill.</p> <p>Provide access to organic waste services to all residents by 2030.</p>	Remove greenwaste waste from the community waste stream - No organic material to landfill	<p>There is no current organics collection service in the shire.</p> <p>The results of the consultation for an organics collection service were inconclusive. While residents were interested in the implementation of a new service, concerns over the cost of the service and whether it should be rolled out to specific townships or Shire-wide were prevalent.</p> <p>The Recycling Victoria policy suggests separate collections, transfer station services, local drop-off points and access to home composting support or worm farms as potential options for providing organic waste services.</p>	<p>Given the inconclusive response to the implementation of an organics service, <b>Golden Plains Shire Council will continue to investigate and determine the most appropriate means of diverting organic material from landfill. This may include a service for the whole of Golden Plains Shire, or a service in Bannockburn only.</b></p> <p>Council will also investigate collaboration with nearby local councils, public and private authorities for the collection and processing of organics</p>
<b>Transfer Station</b>	<p>Increase volumes of recycled material.</p> <p>Increase patronage of transfer station to 10% of survey respondents.</p>	To be confirmed following the results of the Rokewood Transfer Station feasibility study.	6.8% of survey respondents use the Rokewood transfer station.	<p><b>Given the low patronage of the Rokewood Resource Recovery Centre, Council will conduct a feasibility study into the operation of the facility.</b></p> <p><b>In the meantime, increasing community awareness and patronage of the facility will help</b></p>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
				to increase volumes of recycled material at the facility.
	Support community to recycle E-Waste and provide education to the community on the management of E-Waste.	No E-waste sent to landfill All E-waste in the community is recycled		<p>Diversion of E-Waste from landfill will require a number of different actions:</p> <ul style="list-style-type: none"> <li>Investigate a mobile e-waste drop-off service;</li> <li>Develop educational material for E-Waste to distribute to the community;</li> <li>Support businesses that recover E-Waste and other recyclable materials;</li> <li>Investigate participating/encouraging a ResourceSmart Schools program</li> </ul>
<b>Education</b>	Continue to provide ongoing and accessible waste education to the community.		The waste survey showed that most residents want more information on what items can and can't go into the recycling bin and how to recycle more items. The survey also showed that most residents rely on the educational stickers on bins to direct the correct disposal of waste in their bin system.	<p><b>Council's waste education will have a focus on the kerbside recycling system and also on methods to avoid producing waste in the first place to align with the waste hierarchy.</b></p> <p><b>To help educate residents with contaminated bins, council will develop an education program including stickers for the correct disposal of waste.</b></p> <p><b>Council will continue visual bin inspections and apply stickers to the bins during the inspection should contamination be seen.</b></p>
<b>Litter / Illegal dumping</b>	Reduce reported incidents of litter dumping on Council owned and managed land by 50% by 2027.	No litter No dumped rubbish	There were 108 reports of waste dumping both major and minor volumes, in 2017/18.	<b>Council will install signage (with positive messaging) at each litter dumping hotspot to deter this activity and continue to monitor the amount of dumped rubbish in the municipality.</b>



Service area	Interim target - 2025	Aspirational target	Current Performance	Action
		90% reduction of incidences or successfully prosecute		<p><b>Reporting of rubbish dumping and littering will also be encouraged, and enforcement of dumped rubbish fines and notices will be maintained.</b></p> <p>Council will utilise the local laws department to undertake surveillance programs at dumping hotspots.</p> <p><b>'Adopt-a-Spot' programs have been implemented in other councils to encourage community groups and schools to get involved. These programs can also encourage a sense of responsibility and pride for the 'spots'. Council will investigate the implementation of a similar program.</b></p>
<b>Council waste</b>	Golden Plains Shire Council will develop a database of Council waste generation rates.	No council generated waste to landfill	Waste volumes and generation rates specific to council operations are currently not tracked. Estimates have been calculated at 240kg per full time staff member which equated to 57.Stonnes of waste annually.	<p><b>Implement a ban on single use plastics in Council offices.</b></p> <p><b>Implement a Council food waste recovery system.</b></p> <p><b>Educate Council employees to reduce waste generation in the workplace by our own waste education staff.</b></p>
	a 50% reduction in organic waste from baseline.	100% organic waste removed from waste stream of Council facilities by 2040 (in line with Council's Environment Strategy).	There is currently no organics collection for the Golden Plains Shire.	<b>Conduct a bin audit on the council waste stream to develop baseline for target setting</b>
<b>Closed landfills</b>	Completed rehabilitation of Rokewood Landfill by 2025.	<p>Completed rehabilitation of Teesdale landfill by 2030.</p> <p>No new landfills within municipality.</p>	Residents recognise the importance of reducing reliance on landfills and increasing the amount of material recycled.	<p>Commence rehabilitation program at the closed Rokewood Landfill.</p> <p>Gain EPA approval for the Teesdale Rehabilitation plan</p>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
				<b>Council is committed to no new landfills or tips that receive household waste within the municipality.</b>
<b>Community Waste Services</b>				
<b>Community facilities &amp; Events</b>	Develop means of recording waste generation at community facilities  Efficient collection frequency for Council facilities.	Continue to provide waste infrastructure at community events and ensure that waste generated at community facilities is managed responsibly and sustainably.  Cost neutral service.	Council provides a service to community events when requested, we will continue to provide the service.  Residents value community events which bring people and business to the Shire.  There is limited data regarding waste generation at facility locations as they are collected as part of the kerbside collection service.	<b>Council will work with community users at Council facilities to collect baseline information and develop programs to improve waste recovery.</b>  <b>Council will investigate a waste wise policy that discourages problematic wastes such as single use plastics at Council events and community facilities.</b>  Advertise the council provision of waste collection services at community events and educate population on good recycling practices.
<b>Hard Waste</b>	Encourage use of the Rokewood transfer station.	No service requests for hard waste collections.		Advertise services provided at Rokewood transfer station to increase patronage.
<b>Public place bins</b>	Conduct audit on public place bins to determine number and usage.	Tailored collection frequency for litter bins.	There are approximately 200 public place bins within the Golden Plains Shire.  Public place garbage and recycling bins are used differently throughout the Shire which requires different collection frequencies.	<b>Council will conduct an audit on public place bins to determine the appropriate distribution and collection frequency for the service. The audit will lead to a more efficient, cost effective service for the community.</b>  <b>We will investigate the roll-out of Smart Bins to replace litter bins.</b>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
<b>Street sweeping</b>	Continue to provide a street sweeping service in specified areas.	Re-assess specified areas and extend the service if required.		<p><b>We will continue to provide a street sweeping service and reassess the specified areas to extend the service if required.</b> This may require purchase and operation of additional street sweeper.</p> <p>Council will monitor customer service reports for street litter</p>
<b>Emergency events</b>	To have an Emergency Management Plan in place that addresses waste generated from emergency situations.	Emergency Management Plan updated at regular periods	<p>Historically, waste from emergency events has been managed at the Rokewood landfill which closed in 2015. Currently, there is no emergency strategy in place for waste in larger-scale situations such as fires or floods.</p> <p>The Shire has a history of fires and flooding which generate wastes.</p>	<b>Council will prepare an Emergency Waste Management Plan by 2022</b>
<b>Customer satisfaction</b>		Kerbside collection requests in line with regional average.	<p>According to the Know Your Council website, Golden Plains Shire Council has 83.2 kerbside collection requests per 1,000 households.</p> <p>The average kerbside collection requests per 1,000 households across the Grampians Central West Waste and Resource Recovery region is 58.8.</p> <p>The kerbside collection contract specifies a level of reporting for missed bins, incorrectly placed bins and service requests that the contractor must supply to council. The contractor is also responsible for completing and operating a Customer Service Plan.</p>	<p>Monitoring contractor performance through consistent reporting and the Customer Service Plan is essential for Council to improve customer satisfaction.</p> <p>A communication strategy will also help educate residents on correct placement of their bins at the kerbside.</p>

Service area	Interim target - 2025	Aspirational target	Current Performance	Action
<b>Circular Economy</b>		Transition the Golden Plains Shire towards a Circular Economy where resources are used to their fullest value.	The Victorian Government's policy, 'Recycling Victoria: A New Economy', contains support for product repair and recycling initiatives, as well as support for recycled product markets.	<b>Council will seek to support circular economy initiatives in the local waste and resource recovery sector, in line with the Recycling Victoria policy.</b>

The Golden Plains Waste and Resource Recovery Strategy will guide the way the Shire's waste will be managed over the next ten years. To ensure that the strategy remains relevant, it will be reviewed every two years, as shown in Table 3 below.

*Table 3 Waste and Resource Recovery Strategy Review*

	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Review of 2020 Strategy</b>			✓		✓		✓		
<b>Begin work on new strategy (2030-2040)</b>									✓

## Appendix A – Summary of Public Consultation

A total of 18 submissions were received in response to the public advertisement of the Golden Plains Shire Draft Waste and Resource Recovery Strategy.

Common themes which appeared in multiple submissions included the following:

- Rokewood transfer station is not in a convenient location for the Shire and has limited opening hours. Many residents requested that there should be more locations available across the Shire and open more often and/or centralised drop off areas for various waste streams within townships.
- Litter and illegal dumping is a problem in the Shire. Providing more bins along walking trails (for dog waste) and more options than Rokewood for disposing of hard rubbish, may assist to reduce this problem.
- A kerbside FOGO collection was generally considered a good idea for Bannockburn residents, but most other areas did not feel that the extra bin was warranted as their green and organics waste could be managed via composting on their properties. Some Bannockburn residents also stated that they did not require the additional bin services. This feedback is consistent with previous consultation on this topic.
- Fortnightly recycling bin collection would be acceptable for some residents, especially if a container deposit scheme is introduced.
- Some residents preferred weekly waste (red bin) collections, and many requested it is re-established or that people with large families could have access to an additional bin.

There were a number of additional comments and a submission from an industry stakeholder which are being considered for input to the implementation phase of the strategy, along with the key themes identified above.