



# WASTE AND RESOURCE RECOVERY MANAGEMENT STRATEGY

2013 - 2023 ( Revised in 2018 )



GREATER  
SHEPPARTON

# QUALITY INFORMATION

**Document** Waste Strategy – 2018 Revision

**Reference** M18/83349

**Date** 03-October-2018

**Prepared By** Maree Walker

**Reviewed By** Phil Hoare

## Revision History

Revision Date	Details	Authorised	
		Name & Position	Signature
	2013 – 2023 Strategy adopted by Council		
30-March-2018	Draft_Version 1 2013 – 2023 Strategy revised	Karen Cosson, Cosson Consulting	Karen Cosson
31-May-2018	Draft_Version 2	Maree Walker Manager Works & Waste	
28-Sep-2018	Finalise Draft_Version 3	Maree Walker Manager Works & Waste	
10-Oct-2018	Approve Draft_Version 3	Phil Hoare Director Infrastructure	
14- Nov-2018	Approve Draft_Version 4	ELT meeting (presented by Maree Walker and Ifte Hossain)	
20-Nov-2018	Approve Draft_Version 4 for public consultation	Council Meeting	
18-Dec-2018	Approve Draft_Version 5 for public consultation	Council Meeting	



# CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>5</b>
<b>1 INTRODUCTION</b>	<b>6</b>
1.1 MID-TERM STRATEGY review and update	6
1.2 Purpose	8
1.3 Vision and scope	8
<b>2 STRATEGIC FRAMEWORK &amp; POLICY CONTEXT</b>	<b>10</b>
2.1 The GVVRRG	11
2.2 Victorian Landfill Levy	12
2.3 Waste Services Charge	12
2.4 Overview of municipality	13
<b>3 KERBSIDE COLLECTION</b>	<b>14</b>
3.1 Financial summary	15
3.2 Where are we now (2018)	16
3.3 Where do we want to be (2023)	17
3.4 Strategic actions	19
<b>4 RESOURCE RECOVERY</b>	<b>20</b>
4.1 RESOURCE RECOVERY CENTRES	20
4.2 Financial summary	21
4.3 Where are we now (2018)	22
4.4 Where do we want to be (2023)	23
4.5 Strategic actions	24
<b>5 LANDFILL</b>	<b>25</b>
5.1 Licensed LANDFILL	25
5.2 Closed LANDFILLS	26
5.3 Financial summary	26
5.4 Where are we now (2018)	28
5.5 Where do we want to be (2023)	28
5.6 Strategic actions	29
<b>6 WASTE EDUCATION</b>	<b>30</b>
6.1 Where are we now (2018)	31
6.2 Where do we want to be (2023)	31
6.3 Strategic actions	32
<b>7 LITTER &amp; ILLEGAL DUMPING</b>	<b>33</b>
7.1 Where are we now (2018)	33
7.2 Where do we want to be (2023)	34
7.3 Strategic actions	34
<b>8. SUMMARY OF STRATEGIC ACTIONS</b>	<b>35</b>

## 9. CONSULTATION

38

## 10. APPENDIX A

40

### List of Tables

Table 1 Completed actions and outcomes from the 2013-2023 strategy .....	6
Table 2 Modelled costs of providing two waste disposal vouchers annually .....	40
Table 2 Modelled costs of providing an annual hard waste collection service.....	42

### List of Figures

Figure 1 Waste management hierarchy .....	9
Figure 2 The national, Victorian and Council policy context .....	10
Figure 3 Map of Goulburn Valley Waste and Resource Recovery Region .....	13
Figure 4 Greater Shepparton demographics, 2016.....	13
Figure 5 Strategy revision timeline .....	38

## List of abbreviations

<b>ARRT</b>	advanced resource recovery technology
<b>C&amp;D</b>	construction and demolition (waste)
<b>C&amp;I</b>	commercial and industrial (waste)
<b>CPRS</b>	Carbon Pollution Reduction Scheme
<b>DELWP</b>	Department of Environment, Land, Water and Planning (Victoria)
<b>hh</b>	Household (as in per Household)
<b>EPA</b>	Environment Protection Authority Victoria
<b>GVWRRG</b>	Goulburn Valley Waste and Resource Recovery Group
<b>KPIs</b>	key performance indicators
<b>MGB</b>	mobile bin (i.e. wheelie bin)
<b>MAV</b>	Municipal Association of Victoria
<b>MRF</b>	materials recovery facility
<b>MSW</b>	municipal solid waste
<b>MUD</b>	multi-unit development
<b>MWRRG</b>	Metropolitan Waste and Resource Recovery Group
<b>APC</b>	Australian Packaging Covenant
<b>PPR</b>	public place recycling
<b>Pp</b>	per person or resident
<b>RRC</b>	resource recovery centre
<b>Infrastructure plan</b>	Statewide Waste and Resource Recovery Infrastructure Plan
<b>SMEs</b>	small to medium sized enterprises
<b>SV</b>	Sustainability Victoria
<b>VLAA</b>	Victorian Litter Action Alliance
<b>FOGO</b>	Food Organics and Garden Organics

# EXECUTIVE SUMMARY

In 2013, Greater Shepparton City Council released the 2013-2023 *Waste and Resource Recovery Management Strategy* and action plan to deliver waste and recycling services that achieved a balance between accessibility, affordability and sustainability. After five years this strategy has been reviewed and updated to reflect contemporary issues and initiatives and to refresh the actions based on current directions and achievements so far. The revised document is titled "Waste Strategy – 2018 Revision".

This strategy outlines how Council will manage its waste services and specifies strategies and measurable actions that are aligned with the federal, state and local government strategic and policy frameworks. It will also ensure that waste management is well established as part of Council's plan for the future.

In addition, in response to the recent global change to recycling Council has effectively secured recycling services under its existing contracts for a further two years providing certainty and continuity of service. This strategy seeks to build on this positive position to provide innovative and best practice waste services to the residents of Greater Shepparton.

The strategy is structured around five key focus areas as follows:

1. Kerbside waste collection (including kerbside recycling)
2. Resource recovery centres
3. Landfill
4. Waste education
5. Litter and illegal dumping

Customer satisfaction level for Council's waste services remains high with an average satisfaction score of 77%.

#### **Customer Satisfaction Survey Results on Waste Services since 2017-18:**

Service	2017-18 Q1	2017-18 Q2	2017-18 Q3	2017- 18 Q4	2018- 19 Q1
Weekly Household Rubbish Collection by Council	86%	86%	84%	85%	86%
Recycling Collection	83%	84%	82%	82%	84%
Transfer Station	64%	65%	65%	66%	63%
<b>Overall Waste Services</b>	<b>77%</b>	<b>78%</b>	<b>77%</b>	<b>78%</b>	<b>77%</b>

With a focus on five key areas, the Waste Strategy – 2018 Revision aims to define Greater Shepparton City Council's current situation 'where are we now' in regards to the management of waste and 'where we want to be'. By identifying the gaps between our current situation and future aspirations the required actions have been identified to achieve the desired outcome.

Continued commitment to improving waste management practices will significantly contribute towards achieving these goals and will enable Council to provide the levels of service that the community expect in a responsible manner.

# 1 INTRODUCTION

## 1.1 MID-TERM STRATEGY REVIEW AND UPDATE

In 2013, Greater Shepparton City Council released the 2013-2023 *Waste and Resource Recovery Management Strategy* and action plan to deliver waste and recycling services that achieved a balance between accessibility, affordability and sustainability.

The strategy aimed to:

- Reduce waste to landfill;
- Reduce greenhouse gas emissions; and
- Avoid waste, increase reuse and increase recycling.

In 2017 Council recommended that a review of the strategy be conducted to:

- Monitor progress of the actions and the need for any refinements;
- Consider seven potential initiatives that could be included in a revised strategy; and
- Consider any changes in waste and recycling practices to ensure the strategy is aligned to current practices and government policy.

This document is the draft Waste Strategy – 2018 Revision (to be) released for public consultation and feedback prior to adoption by Council.

### 1.1.1 Performance and achievements over 5 years to 2018

Table 1 lists the 2013-2023 strategy actions that have been achieved in the past five years.

**Table 1 Completed actions and outcomes from the 2013-2023 strategy**

Action	Outcome
Minimise waste to landfill	In 2015, Council introduced a compulsory FOGO (food organics and garden organics) service for urban areas. In 2018 the opening hours at the Shepparton Resource Recovery Centre's Resale Shop were increased to 7 days per week.
Reduce waste to landfill through increasing the number of 80L and 120L household garbage bins	Introduced a financial incentive of a lower waste service charge for 80L and 120L garbage bins and an additional charge for the 240L garbage bin.
Introduce the Food Organics and Garden Organics (FOGO) household collection service	The FOGO service was introduced in November 2015 and has recovered over 20,000 tonnes of material since its introduction that would otherwise have been disposed of in landfill. This has saved approximately one year of municipal landfill airspace.
Update the Kerbside Policy	The kerbside collection policy was updated in June 2017 to incorporate the FOGO service.
Employ a Waste Education Officer	The full time officer commenced in 2015 with significant initiatives such as 'follow your waste' tours implemented and highly patronised by school groups and residents.
Extend operations of the Shepparton Resale Shop to seven days a week	Seven day operation was introduced in May 2018. Not only does this recover waste from landfill but also offers a social benefit to the community.
Increase the overall waste diversion rate from landfill	In November 2015, FOGO (food organics and garden organics) was introduced and in March 2018 resale shop operations increased to seven days per week. Both initiatives have increased the diversion rate.
Undertake kerbside bin audit to assess additional waste diversion opportunities	A kerbside bin audit was conducted in August 2017. The results have guided the actions in this strategy. The audit demonstrated great outcomes and identified areas for improvement. A key finding indicating that more education is needed in regards to the disposal of waste in the correct kerbside bin.

Action	Outcome
Commenced construction of the Cosgrove 3 Landfill	In 2017, cell design was completed and the construction contract awarded. Cell construction is due to start in late 2018.
Implement a campaign to reduce incidents of illegal dumping	A campaign was implemented in 2017 and Council received a highly commended Keep Victoria Beautiful award.
Develop a strong collaborative working relationship with Goulburn Valley Waste and Resource Recovery Group (GVWRRG) and the waste industry	Nominated Council officers represent Council at the GVWRRG Local Government Waste Forum, the Technical Advisory Reference Group and the Education Committee and are jointly working on a number of initiatives.
Achieve full compliance with EPA regulations for Cosgrove Landfill operations	Cosgrove 2 is an EPA compliant landfill which operates through the direct scrutiny of an EPA appointed operations auditor. In 2017-18, Council achieved 100% compliance in regard to EPA licence conditions.

This revised strategy will build on these and other achievements and strive to address identified key issues and actions.

### 1.1.2 Consideration of Additional Initiatives

Recently, an update on the progress of implementing the actions as outlined in the Waste Strategy 2013 -2023 was presented to Council. Key initiatives were discussed as were opportunities for the improved management of waste services. Seven potential initiatives were identified for future review and considered as part of the waste strategy review. The findings are as follows:

1. Providing waste disposal vouchers to households.
2. Providing a kerbside hard waste collection service.
3. Providing 360L recyclables (yellow lid) bins to households.
4. Increasing the green lid organics bin collection to weekly collection and decreasing the red lid garbage bin to fortnightly.
5. Providing assistance to community members who experience mobility, health or transport issues that impedes their access to household kerbside collections and waste disposal facilities.
6. Improving the Shepparton Resource Recovery Centre resale shop operations.
7. Upgrading the Shepparton Resource Recovery Centre to a regional priority hub site.

The seven initiatives, including the background, modelling and a recommendation for each are further discussed in Appendix A *2017 Review of Initiatives*. However, in summary, it was identified that:

- Waste Disposal Vouchers - The provision of waste disposal vouchers is not recommended on the basis that there is still a cost that Council needs to recover. A more effective means of providing assistance to residents in need is proposed (refer to Targeted Assistance below).
- Hard Waste Collections - Based on an analysis of providing a kerbside hard waste collection, costs and risks associated with this initiative outweighed the benefits, and therefore, this option is not recommended as part of the revised strategy. Hard waste collections are more appropriate where residents don't have easy access to disposal options e.g. inner metro areas.



- 360L Recycle Bins – Council has not received any significant community requests or demand for the provision of a 360L recyclables bin. In addition, the recent bin audit suggests that the 240L bin is sufficient at this time.
- Weekly Green Waste Collection – While providing a weekly FOGO service may be appropriate in time, the significant cost and current level of contamination rates in the general waste bin suggest this initiative be reviewed again at a later stage. Implementation would logically be aligned to a move to fortnightly collection of general waste. In order to increase the FOGO collection to weekly, contamination rates need to be further reduced. Given this, the reduction of FOGO contamination has been included as a strategic action and will be a focus of the revised strategy.
- Targeted Assistance - Develop a plan that will enable the Waste and Community Development Team to work collaboratively with charitable services to assist people in need to dispose of their waste. This will ensure that charities can assist community members who experience mobility, health or transport issues impeding access to household kerbside collection and waste disposal facilities.
- Reseal Shop Enhancement - Council are currently investigating opportunities to enhance the operation of the Reseal Shop (located at the Shepparton Resource Recovery Centre).
- Shepparton RRC Upgrade - In addition, opportunities to upgrade the Shepparton Resource Recovery Centre will also be investigated as part of this revised waste strategy.

## 1.2 PURPOSE

Waste management has a very high profile in the community. Council's waste management services, including kerbside collections and disposal, landfill and resource recovery operations, and other waste activities, make up nearly 10% of Council's total annual operational budget. The collection, transport and methane emissions from waste decomposing in landfill are together a major source of Council's greenhouse gas generation.

For this reason, the strategy has been developed to provide sustainable solutions for the collection, disposal and resource recovery from waste generated within our community. It includes strategies and measurable actions to be undertaken by Council.

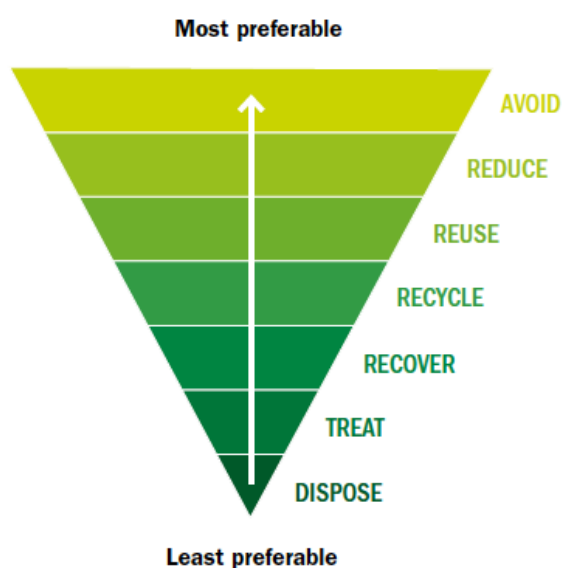
## 1.3 VISION AND SCOPE

A major focus of the revised waste strategy is waste avoidance. Reducing the production of waste is the most effective way of minimising waste being collected, treated, recycled or disposed of in landfill. The strategy seeks to enable and encourage the Greater Shepparton community to improve our environment by avoiding waste generation as much as possible. This is achieved by using resources more efficiently and reducing the environmental impacts of waste. Education plays a major role in ensuring that this can happen.

The aim of this strategy is to minimise municipal solid waste (MSW), which accounts for 47% of the municipalities waste stream, and to, where possible, increase recycling of commercial and industrial (C&I) wastes and construction and demolition (C&D) wastes.

Figure 1 *The Waste Management Hierarchy* is one of the eleven principles of environment protection contained in the Environment Protection Act 1970. The principles provide a framework for EPA's decision making. The waste management hierarchy shows the order of preference for waste management where avoiding waste is the most preferable and disposing of waste to landfill the least preferable.

**Figure 1 Waste management hierarchy**



This strategy is structured on five key focus areas as follows:

1. Kerbside waste collection
2. Resource recovery centres
3. Landfill
4. Waste education
5. Litter and illegal dumping

These focus areas align with strategic objectives identifies in the Goulburn Valley Waste and Resource Recovery Implementation Plan (refer to section 2.1.1). The Strategy outlines *Where Are We Now - 2018* (our current state) and *Where We Want To Be – 2023* (our future state). Section 7 summarises the strategic actions to be undertaken to get to achieve the desired outcomes i.e. to reach our desired future state.

## 2 STRATEGIC FRAMEWORK & POLICY CONTEXT

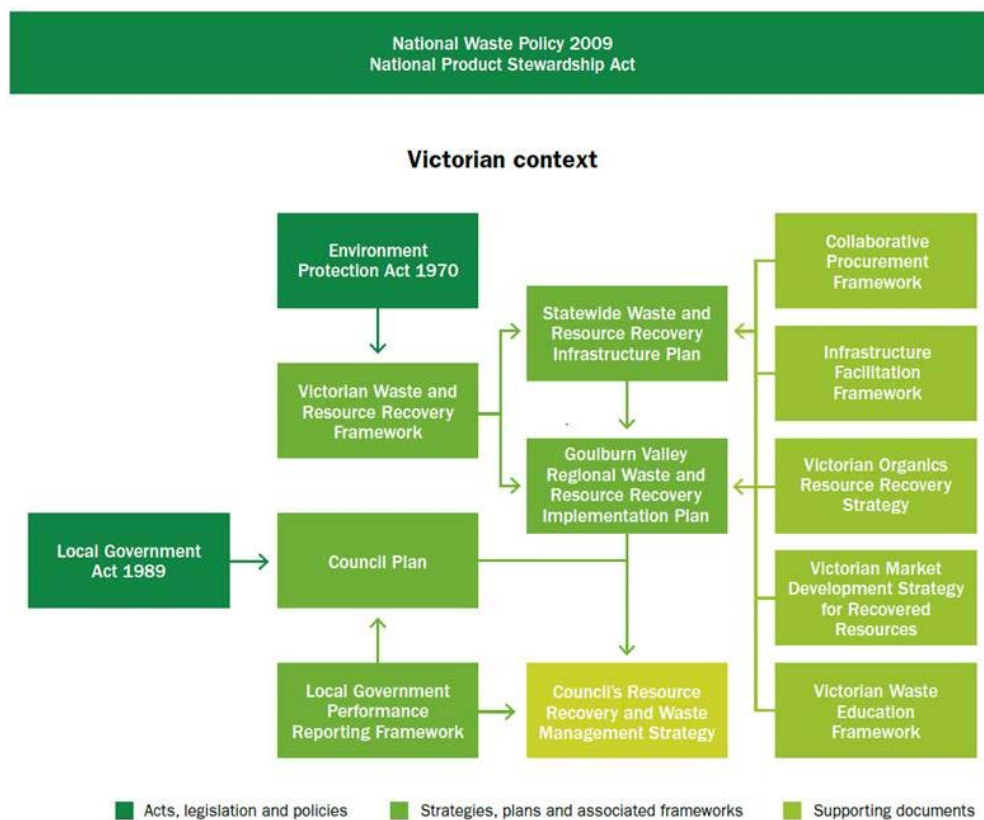
Development of the revised strategy considered the federal, state and local government strategic and policy framework. It is based on the waste management hierarchy, which is included in the Environment Protection Act 1970 and is the underlying principle of waste management policies in Victoria.

The Environment Protection Act establishes the legislative framework for the waste industry, while the Victorian Waste and Resource Recovery Framework provides structure and governance. Under this structure the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP) and the Regional Waste and Resource Recovery Implementation Plans are developed.

There are seven Regional Waste and Resource Recovery Implementation Plans in Victoria that reflect regional waste needs and provide a link between legislation and implementation. Greater Shepparton City Council links with the Goulburn Valley Waste and Resource Recovery Group (GVWRRG) and all strategy development should align with the Goulburn Valley Waste and Resource Recovery Implementation Plan (GVWRR Implementation Plan).

Figure 12 summarises the context and relationships between the national, state and Local Government policies.

**Figure 2 The national, Victorian and Council policy context**



## 2.1 THE GVWRRG

As seen in Figure 2, the GVWRRG plays a major role in waste management. The GVWRRG was created under 2014 amendments to the 1970 Act and replaced the former Goulburn Valley Waste Management Group that was established in 1997.

It is responsible for planning the future needs of waste and resource recovery infrastructure in the region, aligned to Victorian Government policy. It works with six councils, the Shire of Campaspe, Greater Shepparton City Council and the Mitchell, Moira, Murrindindi and Strathbogie Shire Councils, to plan for waste and resource recovery infrastructure and services and to facilitate appropriate joint council procurement.

The GVWRRG also work with government environment agencies, councils, industry, business and communities to provide best practice advice on waste and resource recovery systems, facilities and services. It has a long history since 1997 of successful government funding partnering to deliver waste and resource recovery projects across the region.

### 2.1.1 The GVWRR Implementation Plan

A Council must perform its waste management functions consistently with the Regional Waste and Resource Recovery Implementation Plan applying to the Council's municipal district, and for Greater Shepparton City Council that is in accordance with the GVWRR Implementation Plan.

There are five strategic objectives outlined in the GVWRR implementation plan that are based on the principles of the 1970 Act and aligned to the strategic directions of the state infrastructure plan, these are as follows:

1. Maximise diversion of recoverable materials from landfills.
2. Support increased resource recovery.
3. Achieve quantities for reprocessing.
4. Manage waste and material streams.
5. Maximise economic outcomes in the delivery of a region-wide network of waste and resource recovery infrastructure.

The GVWRR implementation plan divides priorities into *needs* and *opportunities*. *Needs* occur where there is either no existing infrastructure or insufficient infrastructure to recover and reprocess material types. These include:

- e-waste
- tyres
- textiles
- food and garden organics
- sorting infrastructure to recover industrial waste.

Council's revised strategy has considered the strategic objectives and the needs and opportunities of the GVWRR implementation plan, which is a legislative requirement for Council.



## 2.2 VICTORIAN LANDFILL LEVY

The State Government through the Environment Protection Authority (EPA) introduced a landfill levy as a strategy to make the cost to take waste to landfill equivalent to processing waste through an Advanced Resource Recovery Facility (ARRF). Waste processing costs at an ARRF are significantly higher than current disposal costs at landfill.

There will be significant increases to the Landfill Levy for the next five years to bring landfill disposal costs closer to the anticipated ARRF costs.

A levy for each tonne of waste deposited to landfill in Victoria was established under the EPA Act in 2002. Funds generated from the levy are then dedicated to resource recovery and other environmentally beneficial projects. These funds also support environmental government organisations such as the EPA, Sustainability Victoria and the Waste and Resource Recovery Groups.

The 2018/19 levy for Greater Shepparton (and regional Victoria) is:

- \$31.71 per tonne for municipal waste
- \$55.46 per tonne for commercial waste.
- \$70 per tonne for prescribed waste Category C.

This is projected to increase by approximately 2.5% annually over the next four years.

## 2.3 WASTE SERVICES CHARGE

The Victorian *Local Government Act 1989* (Division 1 s. 162) allows a Council to declare a service rate or an annual service charge or any combination of such a rate and charge for the collection and disposal of refuse.

Waste management can encompass a number of different types of services. The types and level of services depends on a council's specific circumstances, policies and priorities. There are also different ways councils allocate and recover their waste management costs.

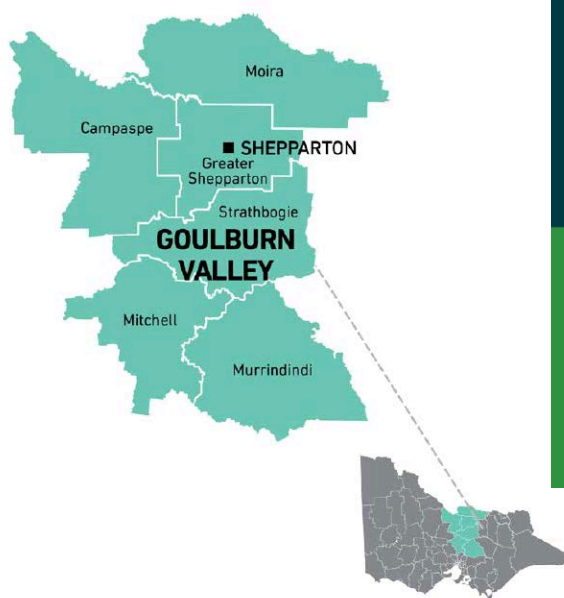
Council, like the majority of Victorian councils, has a waste service charge. Greater Shepparton City Council adopts a separate charge to provide this essential service. The waste service charge is currently excluded from the rate cap but is monitored and benchmarked across all councils by the Essential Services Commission.

Council, also like the majority of councils, has a user-pays approach for services beyond the standard services provided within the waste service charge. Examples include charges for optional larger bins, large commercial bins and to recover costs to manage items, such as mattresses and tyres, dropped off at resource recovery centres. Council continually monitors the costs of providing services to ensure the waste service charge covers the cost of providing the wide range of services required for the collection and disposal of refuse.

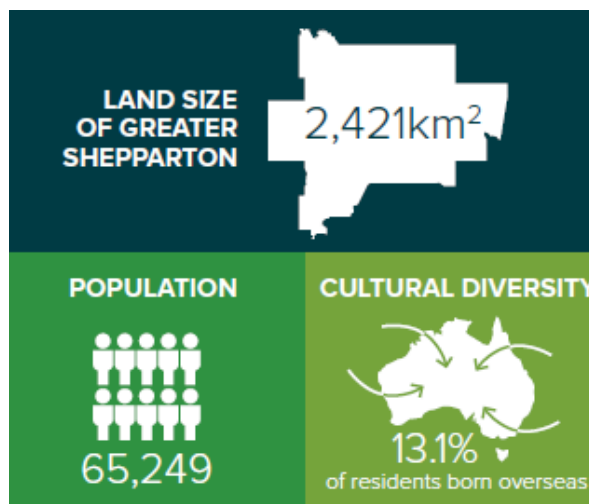
## 2.4 OVERVIEW OF MUNICIPALITY

Greater Shepparton is home to over 65,000 people spread over 2,421 square kilometres (Figure 4). Shepparton Township is located at the confluence of the Goulburn and Broken Rivers and at the intersection of the Goulburn Valley and Midland Highways (Figure 3). The Greater Shepparton Region is the fourth largest regional centre in Victoria and one of the fastest growing regions in Victoria.

**Figure 3 Map of GVWRR Region**



**Figure 4 Greater Shepparton demographics, 2016**



The population is almost evenly split between the main urban centres of Shepparton and Mooroopna (53%) and the surrounding rural areas, including the smaller townships of Congupna, Dookie, Katandra, Kialla West, Merrigum, Murchison, Tallygaroopna, Tatura, Toolamba, Undera and surrounding rural areas (47%).

Over 14% of people living in Greater Shepparton are born overseas and the region is home to more than 50 cultural groups. Greater Shepparton has supported Australia's intake of humanitarian entrants and refugees from Africa, the Middle East and Afghanistan and is now the leading Victorian site for new arrival community settlement outside of metropolitan Melbourne.

The diverse population provides a unique opportunity for Council to utilise multi-dimensional approaches and procedures in engaging the community to understand and embrace waste minimisation, reduce contamination and to ensure a better environment for future generations.

# 3 KERBSIDE COLLECTION

In accordance with the current Kerbside Collection Policy, for households rated residential and rural residential located within urban boundaries, the Standard Kerbside Collection Service is compulsory.

The standard Kerbside Collection Service consists of:

- Weekly garbage waste collection;
- Fortnightly mixed recyclables collection; and
- Fortnightly food and garden organics collection (urban areas only);




Additional factors affecting the standard service are as follows:

- Multi-unit dwellings such as retirement villages that are commercially rated are not required to have an organics collection. Those that are residentially rated are provided with bins based on the number of dwellings.
- Bins for commercial and industrial properties are collected in accordance with the standard bin service. If additional services are required, the owner/occupier must make their own arrangements.

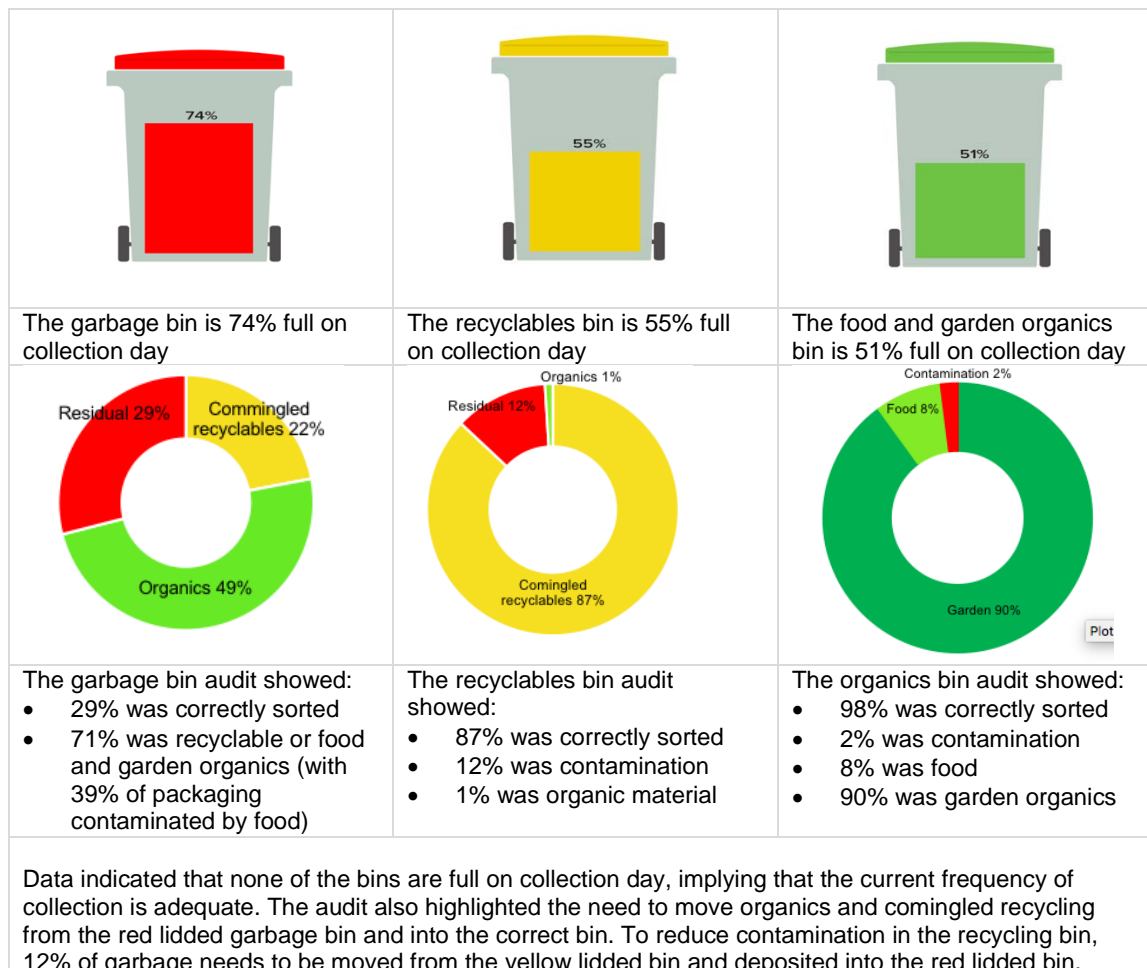
Council's waste services are funded through the waste service charge (see Section 2.2.3). The sizes of bins provided are 80L, 120L or 240L garbage, 120L or 240L recyclables and 80L or 240L organics. The standard service is based on Sustainability Victoria's best practice standards to minimise waste to landfill and maximise recycling of packaging and organics. Figure 5 shows the number of bins and collection frequency for kerbside collections.

In an effort to determine how residents dispose of Waste, Council conducted its first bin audit in 2012. Two more audits have since followed, one in 2015 and one in 2017. In 2017 a total of 1,059 bins were audited. Figure 6 shows the results from the 2017 audit.

**Figure 5 Summary of kerbside collection services**

Service	Bin size	Number of bins	Collection frequency
 Garbage	80L 120L 240L	10,731 8,255 9,252	weekly
 Recycling	120L 240L	28,238	fortnightly
 Food and garden organics	80L 240L	22,061	fortnightly

**Figure 6 Fullness of bin and composition of material (bin audit 2017)**



### 3.1 FINANCIAL SUMMARY

The largest source of waste related income is derived via kerbside collection and is charged to ratepayers as part of the waste services charge. Income generated from kerbside collection is forecast to be approximately \$9.7 million in 2018/19. Managing kerbside collection is also Council's largest operational expense and is forecast to be \$7.6 million in 2018/19. The table below shows the total income and expense for the management of kerbside collection until 2023 (the duration of the revised waste strategy).

Kerbside	17/18 Actuals	18/19 Forecast	19/20 Forecast	20/21 Forecast	21/22 Forecast	22/23 Forecast
<b>Total Income</b>	9,496,260	9,801,460	10,026,535	10,327,331	10,637,151	10,956,266
<b>Total Expense</b>	5,868,348	7,644,248	7,873,575	8,109,783	8,353,076	8,603,668
<b>NET Kerbside</b>	<b>3,627,912</b>	<b>2,157,212</b>	<b>2,152,960</b>	<b>2,217,548</b>	<b>2,284,075</b>	<b>2,352,597</b>



As shown in the financial summary, a significant increase to kerbside collection expenses is assumed due to an increase in the cost of processing recyclable material. Fluctuations or changes in kerbside income and expenses are also dependent on factors such as population growth, landfill disposal cost, contract rate increments, and recyclable material processing costs. The current population growth in Shepparton is 1.25% indicating a future increase in income generated from the kerbside collection service. This increase will continue to subsidise other waste services. The above figures do not include council overhead costs for managing the kerbside collection service such as staff salaries, compliance requirements and waste education.

## 3.2 WHERE ARE WE NOW (2018)

### Contamination Rates

Greater Shepparton City Council introduced a FOGO (food and organic) collection service in 2015. For the first twelve months, waste contamination rates fluctuated between 4% and 12%. The current contamination rate of the FOGO bin is approximately 3% to 4%.

The recycle bin contamination rate is approximately 13%. As shown in Figure 6 the current waste compositions in red, yellow and green lid bins are highly imbalanced with the red lid bin containing only 29% of residual waste, the remainder, 71% should have been deposited in either the yellow or green lidded bin.

The 2017 bin audit confirms current contamination rates as follows:

- FOGO (green lid bin) < 2%
- Recycle (yellow lid bin) < 13%
- General (red lid bin) < 71%

### Tracking Contamination

Cameras are installed in the green bin collection trucks to track contamination. When contamination is found, photo evidence allows for Council to send a letter to the resident with 'correct use of bin' information. If contamination occurs repeatedly, bin collection is suspended in accordance with the Kerbside Collection Policy. Collection resumes if the bin owner signs a statutory declaration making a commitment to dispose of material in the correct bin.

This process has proven to be an effective form of education and has helped to reduce bin contamination in the FOGO bin. However, before it is appropriate to move the green lid bin service to weekly the contamination rate in the red lid bin needs to be reduced so that there is no net impact on cost of collection. This continues to be a challenge (refer to Appendix A, Section 4).

Cameras are not installed on the yellow lid bin collection trucks and therefore, there is currently no efficient means to track the source of contamination in the recycle bin. In addition, there are some residential areas where the occurrence of bin contamination is significantly high (contamination hot spots). This highlights the need for the development of specific and targeted waste education programs that encourage the community to cooperate when it comes to using the correct bin.

### Kerbside Collection Service Areas

It is compulsory for residents living within the 'urban residential boundary' to have the FOGO service. Residents with FOGO pay an additional waste charge for this service. However, when the FOGO service was introduced in 2015 the urban residential boundary was not clearly defined and there are a number of residents living on the urban fringe that are excluded from FOGO collection.

### Future Cost Implications for Recycling

The introduction of China's Blue Sky Policy (National Sword) has meant a recent restriction on the importation of recyclables which has impacted the global market with flow on affects to those in the Waste industry. As a result, Council will now incur an additional cost of approximately \$860,000 annually to ensure the continuance of the kerbside collection and processing of recyclables.

## 3.3 WHERE DO WE WANT TO BE (2023)

### Contamination Rates

In 2023 Council's vision is that bin contamination has been significantly reduced. Council aim to have undertaken another bin audit with a target of reducing the contamination rates to as follows:

	2018	2023
FOGO (green lid bin)	98% correctly sorted 2% contaminated	99% correctly sorted 1% contaminated
Recycle (yellow lid bin)	87% correctly sorted 13% contaminated	95% correctly sorted 5% contaminated
General (red lid bin)	29% correctly sorted 71% contaminated	70% correctly sorted 30% contaminated

### Tracking Contamination

In 2023 Council now have a process in place to track contamination rates in both the yellow lid bin and the red lid bin, ensuring that waste streams are appropriately diverted. Contamination of the FOGO bin continues to be tracked and will be consistently managed.

Confusion in regards to the correct use of bins will no longer exist and our targeted programs have begun to eliminate contamination hotspots. Council has focused on targeted waste education programs that encourage the community to correctly dispose of household waste. These programs are specifically aimed at moving recyclables and FOGO material from the red lid bin into the correct bin for processing.

### Service Areas

In 2023, the urban residential boundary will be clearly understood, thus eliminating confusion with the compulsory FOGO service. Council's Waste Team will work closely with Council's Planning Team to understand and plan for growth in the urban residential zone.

### **Future Cost Implications for Recycling**

The Government response to the restrictions enforced by China on the importation of recyclable material has forced the development of a range of initiatives. These initiatives are discussed in Sustainability Victoria's Recycling Industry Strategic Plan and include support infrastructure, education, and market development.

In line with these initiatives there has been a shift from 'recycling right' to 'waste avoidance' whereby the collection and processing of recyclable material is no longer undertaken because it is the 'right thing to do' but is undertaken because the end product is a commodity needed by industry. End markets have been created for recyclable material and Greater Shepparton City Council are supporting and encouraging this.

By 2023 Council will be working closely with both material recycling facilities and recycling collectors and will have had the opportunity to advertise and implement new contracts for both kerbside collection and the processing of recyclables that support waste objectives.

## 3.4 STRATEGIC ACTIONS

Strategic Actions	Timeline	Indicative Cost \$
Develop a process (internally) to track yellow lidded bin and the red lidded bin contamination as per the green lidded bin (FOGO) service.	2019-2020	NA
Engage a consultant to undertake a bin audit in an effort to gather data on how residents dispose of waste.	2020-2021	\$50,000
Develop targeted waste education programs that align with Sustainability Victoria's Waste Education Strategy to encourage the community to dispose of waste correctly, including a targeted FOGO Kerbside Collection Support Campaign.	2018-2023	\$20,000
Engage an external provider to undertake a survey to gather much needed data so waste education programs can be targeted to specific areas.	2019-2020	\$20,000
Develop a pilot project to assist people in the community to more easily dispose of household waste. To be developed internally in collaboration with Community Development and Sustainability.	2020-2021	\$20,000
Focus on implementing actions included in the Government's Recycling Industry Strategic Plan and take advantage of RIIF (Recycling Industry Infrastructure Funding) to ensure that Shepparton has infrastructure in place to manage recycling for end markets.	2019-2020	TBD
Establish a contract development working group in order to get the best outcome when tendering for the kerbside collection and the processing of recyclables contracts.	2019-2020	\$40,000
Develop current internal processes to implement the use of green lidded bins at Council events	2019-2020	TBD
Focus on implementing recycling bins adjacent to Council waste bins where appropriate across the municipality	2019-2020	TBD
Investigate and assess the viability of the introduction of 360L recycling services and subject to this review and if determined appropriate any changes will align with the contract renewal or renegotiation.	2019-2023	TBD
Investigate and assess the viability of transitioning the change to collection frequency of the green and red lidded bins and subject to this review and if determined appropriate any changes will align with the contract renewal or renegotiation	2019-2023	TBD



# 4 RESOURCE RECOVERY

## 4.1 RESOURCE RECOVERY CENTRES

Greater Shepparton City Council own and operate three Resource Recovery Centres (RRC's). They are located in Shepparton, Ardmona and Murchison and service the Greater Shepparton community. A Resource Recovery Centre is not a tip! It's a place where waste and recyclables from many different sources are brought together and then transported to recycling centres, waste processors or to landfill. Council's three Resource Recovery Centres enable residents to dispose of large volumes of waste not accepted in the kerbside collection.

The *Guide to Better Practice at Resource Recovery Centres* (Sustainability Victoria 2017) formed the basis for the defined minimum standards for the assessment of all RRC sites, resulting in the network as a whole being assessed as being in need of substantive upgrade. In addition, a key finding of the RRC Strategy found that only 38% of the sites assessed had a business case developed for the future management of the site.

### 4.1.1 Shepparton Resource Recovery Centre

The Shepparton RRC is located at 125 Wanganui Road, Shepparton. It is the largest of Council's three RRC's and operates seven days per week. The Shepparton RRC currently recovers approximately 45% - 50% of operating costs from gate fees. Current services incurring costs include stockpile handling, bin rentals, waste transport and disposal charges, plant and equipment charges, utility charges and staff/labour salaries. This facility operates over the weekends and on some public holidays. Some items accepted by the Shepparton RRC have an associated disposal cost, while others can be disposed of free of charge. For a list of items that can be disposed of free of charge, and the fees for other materials, visit Council's website at [www.greatershepparton.com.au](http://www.greatershepparton.com.au).

At the Shepparton RRC, there are provisions for the acceptance of recyclables, paper and cardboard. All collected recyclable items are transported to a Materials Recycling Facility (MRF) for further sorting and re-processing. There are also provisions for the collection of E-waste. E-waste (electronic waste) refers to any item with a plug, battery or cord that is no longer working or wanted. E-waste contains valuable resources that can be reused as well as some materials that harm the environment. Disposing of E-waste at the Shepparton RRC ensures that the items can be recycled as opposed to going to landfill.

Housed at the Shepparton RRC is a permanent detox drop-off facility for the disposal of paint, household batteries and fluorescent light tubes and globes. Council work closely with Sustainability Victoria and GVVRRG to hold an annual 'detox your home' collection day, whereby residents can dispose of chemical and hazardous waste free of charge. Toxfree, contracted by Sustainability Victoria (SV) removes the waste and SV pay for the collection, sorting and processing. There are also opportunities to explore product stewardship initiatives such as the service offered through Paintback.

Commercial customers disposing of bulk loads of timber, concrete and brick are also catered for at the Shepparton RRC. Council receive and recycle approximately 18,000 tonnes of clean concrete and bricks every year which are crushed into 20mm aggregate and used by Council for road construction works. Green waste can also be disposed of at the Shepparton RRC.

The Shepparton RRC is also home to the Resale Shop. Items that are taken to the RRC and considered suitable for resale are taken to the Resale Shop, where community members can find a reusable bargain. The Resale Shop was opened to the public in 2006 and operated for 7 days per week. However, in 2012, due to lack of response from the community Council scaled back operations to two days per week. Given the recent success of the Resale Shop and the significant number of household items recovered and diverted from landfill, in March 2018, Council again increased the opening hours to seven days a week. There is a potential to develop this activity and potentially involve a social enterprise.

#### 4.1.2 Ardmona Resource Recovery Centre

The Ardmona RRC is located on the corner of Midland Hwy and Turnbull Rd, Ardmona. It is open on Tuesday, Thursday, Saturday and Sunday and provides services to the communities of Mooroopna, Tatura and Ardmona. The Ardmona RRC has a cost recovery of approximately 50% through gate fees of the total operational expense, similar to Shepparton RRC. Cost recovery at the Ardmona RRC is slightly higher due to less operating hours.

Unlike the Shepparton facility the Ardmona RRC does not allow for the disposal of concrete, brick and plaster and there isn't a detox facility on site. However, green waste is received, processed and stockpiled at the Ardmona RRC before being disposed of off-site.



#### 4.1.3 Murchison Resource Recovery Centre

The Murchison Resource Recovery Centre was established in 2012 after the closing of the Murchison Landfill, which is also situated on the same site. The facility is open Wednesday and Sunday afternoons from 1pm to 4pm and provides services to the Murchison community. It does not accept concrete, brick, plaster, polystyrene or vegetable based oils. Nor does it cater for the acceptance of chemical and household waste.

The Murchison RRC has a cost recovery of approximately 25% through gate fees of the total operational expenses. This relative higher percentage is due to the limited opening hours. Although Murchison RRC receives fewer customers, it plays a vital role in offering the local community a waste service that is within 20 to 30 minutes of their home. This meets best practice reasonable access as recommended by Sustainability Victoria.

### 4.2 FINANCIAL SUMMARY

Resource Recovery Centres have historically operated at a loss requiring subsidisation from other waste streams.

Resource Recovery	17/18 Actuals	18/19 Forecast	19/20 Forecast	20/21 Forecast	21/22 Forecast	22/23 Forecast
<b>Total Income</b>	1,100,293	1,214,577	1,237,299	1,260,465	1,284,086	1,308,169
<b>Total Expense</b>	1,899,596	2,057,022	2,579,811	2,655,280	2,732,993	2,813,018
<b>NET RRC</b>	<b>-799,303</b>	<b>-1,291,945</b>	<b>-1,342,512</b>	<b>-1,394,814</b>	<b>-1,448,907</b>	<b>-1,504,849</b>

As shown above, the Resource Recovery Centres are currently recovering approximately 50% of the current operating costs. Hence the need to subsidise the running of these facilities from other waste streams (i.e. kerbside collection and landfill operation). Fees and charges at the Resource Recovery Centres are set in accordance with recycling/processing/disposal costs, bin hire charges, utility costs, plant hire charges and other overhead charges.

The cost of collecting and then processing items from Resource Recovery Centres continues to be significantly higher than the gate fees charged. Adjustments to current gate fees to match the collection and processing costs would result in deterring and discouraging residents from using Resource Recovery Centre which could ultimately lead to the increase of illegal dumping.

## 4.3 WHERE ARE WE NOW (2018)

### Managing Transactions

At all three RRC sites (Shepparton, Ardmona, and Murchison) the functionality of existing software used to manage financial transactions is inefficient. The current software has been in use since 2006. While this software system can account for financial transactions it does not have the necessary functionality to track data in real time. The ability for the current system to record and provide accurate data for reporting is inefficient and time consuming.

### E-Waste (Electronic Waste)

Given the short lived lives of E-waste, E-waste is now growing up to three times faster than general municipal waste in Australia. In June 2019, the Government will impose a ban to restrict E-waste deposits to landfill. The RRC's do not currently have the necessary infrastructure in place to cater for the storage of E-waste. All three sites require infrastructure upgrades such as the installation of separate E-waste sheds to house the waste before they are transported to processing facilities. Council have just submitted a grant application to SV and expect to receive \$100,000 for the infrastructure upgrades.

### Site Location and Layout

Although the Shepparton RRC provides the broadest range of services, the size and location of the site offers limited opportunity for expansion. The *GVWRRG Facilities Buffer Risk Assessment Report* identified operations being compromised by the proximity to residential development and the impact of noise and dust from the storage and processing of concrete and organic material on part of the site. Thus indicating that future relocation be considered or as an alternative, improvements made to onsite technology.



Site layout of the Ardmona RRC requires improvement and an upgrade is necessary in order to meet best practice. While the Murchison RRC site is close to meeting best practice its location lacks attraction and therefore, with limited opening hours it does not currently receive significant volumes.

Traffic flow at the Shepparton RRC requires improvement. An infrastructure concept plan has been developed for the site and the provision of separate entry and exits points to the RRC and the Resale Shop would be of benefit. To determine the future site layout of the Shepparton RRC a business plan needs to be developed.

The site would also benefit from the installation of a weighbridge to allow for the weighing of commercial loads. There are also opportunities to explore product stewardship initiatives such as the service offered through Paintback, however, site infrastructure needs to be able to support this. Current infrastructure supports the acceptance of domestic waste, however, commercial loads could also be catered for.

### **Resale Shop**

The Shepparton Resale Shop, although a success, requires a 'brand' and work is still required in establishing the shop so the layout is functional and aesthetically pleasing.

### **Stockpile Management**

In 2018, the EPA introduced a new guideline for stockpile management of combustible, recyclable and waste materials (CRWM) with the purpose of ensuring that stockpile size and fire risk at RRC's is effectively managed. However, individual fire management plans for all three sites do not currently exist and need to be developed. In addition, a process needs to be developed for the management of green waste. Green waste is accepted at the Shepparton and Ardmona RRC's and stockpiles require management.

## **4.4 WHERE DO WE WANT TO BE (2023)**

### **Managing Transactions**

In 2023, all three sites will have new operational software systems installed allowing for data processing in real time. Waste specific software will ensure online access from the office to each of the RRC sites which will eliminate the current practice of transferring data manually on a USB. This will significantly improve the ability for Council to report more accurately to state wide data collection and to apply for funding. In addition, other initiatives and infrastructure will be investigated to move to a more non subjective method of charging which will also assist in gaining customer confidence in relation to fees charged.

### **E-Waste (electronic Waste)**

To cater for the acceptance and disposal of E-waste, the Shepparton and Ardmona RRC's will have new sheds installed. Council will apply for grants through Sustainability Victoria for assistance with the construction of the sheds.

### **Site Location and Layout**

Opportunities for funding to upgrade the infrastructure at Shepparton RRC will be sought. This will allow for improved traffic flow and additional parking spaces. Also considered and researched will be improvements to onsite technology to result in minimal impacts from dust and noise to residential areas as a result of processing concrete and organics. A business case for the installation of a weighbridge will have been developed.



In regards to the provision of waste services at the Murchison RRC, a service plan will be developed. By 2023 consideration will also be given to cross council opportunities with neighbouring Councils such as Rushworth, in Campaspe Shire, who could benefit from the location of the Murchison RRC.

### Resale Shop

The Resale Shop has been rebranded and the shop functions as its own business unit attracting visitors from Shepparton and the wider community. In addition an action plan has been developed for the improved operational management of the Resale Shop.

### Stockpile Management

In 2023, fire management plans, in accordance with the EPA guideline 'Stockpile management of combustible, recyclable and waste materials' will have been developed for all three sites. Stockpile management plans for Shepparton and Ardmona will also have been developed.

## 4.5 STRATEGIC ACTIONS

Strategic Actions	Timeline	Indicative Cost \$
Install waste management software at all three sites.	2019-2020	\$130,000
Apply for a Sustainability Victoria grant to install E-Waste sheds at the Shepparton RRC and the Ardmona RRC	2019-2020	\$145,000
Develop business/concept plans for the redevelopment/upgrades of the Shepparton RRC and the Ardmona RRC. Plans to be developed in collaboration with the GVVRRG.	2019-2020 (Plan)	\$80,000
Develop an internal working group to research and investigate improvements to onsite technology for the processing of concrete and organics.	2019-2020	NA
Explore opportunities for product stewardship initiatives such as the service offered through the 'Paintback Scheme'.	2019-2020	N/A
Develop a business case for the installation of a weighbridge at the Shepparton RRC to improve measures on establishing non subjective charges.	2020-2021	NA
Engage a Fire Management Consultant to develop Fire Management Plans for all three sites.	2018-2019	\$20,000
Develop Stockpile Management Plans for the Shepparton and Ardmona RRC's.	2018-2019	N/A
Establish a process for the improved management and processing of green waste received at Council's RRC's.	2019-2020	N/A
Develop a Service Plan for all three sites, paying particular attention to the provision of services at the Murchison RRC.	2019-2020	NA
Explore cross council opportunities with Campaspe Shire for the provision of the Murchison RRC to Campaspe residents.	2019-2020	NA
Investigate viability of open tip days in lieu of hard waste collection pick up and tip vouchers.	2019-2023	TBD

# 5 LANDFILL

## 5.1 LICENSED LANDFILL

There are five licensed landfill sites in the Goulburn Valley Waste and Resource Recovery Region. One of these, Cosgrove, is located in Greater Shepparton. The 'Cosgrove Precinct' is located approximately 17km east of Shepparton and is made up of three landfill areas, Cosgrove 1, Cosgrove 2 and Cosgrove 3.

The Cosgrove Landfill is identified as a *regional hub of state significance*<sup>1</sup> in both the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP) and the GVWRG implementation plan. The SWRRIP identifies opportunities to achieve best practice residual waste management outcomes to increase capacity to pre-sort and screen materials at landfill sites. In addition, the GVWRG implementation plan identifies opportunities to significantly increase the diversion of recoverable material from landfill by pre-sorting commercial and industrial waste.

### 5.1.1 Cosgrove 1

The Cosgrove 1 landfill is a closed landfill site, owned and formerly operated by Greater Shepparton City Council. The Landfill formerly accepted inert and putrescible wastes, low level contaminated soils, asbestos and tyres from 1989 to 1999 under EPA licence. The EPA licence was surrendered for Cosgrove 1 landfill and was replaced with a pollution abatement notice (PAN) which requires Council to continue with the aftercare requirements set by EPA for next 30 years. Council currently meets all requirements for aftercare through its landfill aftercare management plan.

### 5.1.2 Cosgrove 2

Council is currently operating at the Cosgrove 2 landfill. The landfill covers an area of approximately 10.3 hectares. Cells one and two are capped, with the construction of the cell three cap scheduled for completion in 2018. Cell 4 is the current active cell and is expected to be capped at completion of waste filling in 2020.



Cosgrove 2 also has a landfill gas collection system. Fifteen gas extraction wells were installed in 2006/07. It has a 0.77MW power plant that turns an average of 300,000 standard cubic metres of methane gas to electricity each year, enough to power at least 450 houses annually, generating an annual income of approximately \$55,000.

Connecting to a grid offers 2MW capacity and therefore the opportunity to extend the gas collection to Cosgrove 3. There are also the opportunities for solar power to be installed.

<sup>1</sup> Defined in the state implementation plan as managing or processing a significant proportion of one or more material streams for the state.

### 5.1.3 Cosgrove 3

The Cosgrove 3 Landfill is situated in close proximity to the Cosgrove 2 landfill. Construction of Cosgrove 3 commenced in 2017 and the construction of cell one is expected to commence in late 2018 with an anticipated completion date of February 2019.

The development of Cosgrove 3 will assist Council in providing continuous landfilling operations. Cosgrove 3 is expected to provide a further 50 years of airspace securing Council's future waste management requirements. The Cosgrove 3 site will provide room to establish a future pre-sort facility and/or a Resource Recovery Centre. The total construction costs as per whole of lifecycle modelling for Cosgrove 3 (i.e. from 2018-19 to 2056-57) is approximately \$65 million (refer to financial summary on page 26).

## 5.2 CLOSED LANDFILLS

The GVWRG implementation plan lists eight closed landfill sites in Greater Shepparton City Council. Rehabilitation has been completed for the Kialla, Mooropna and Murchison closed landfill sites, and ongoing monitoring and maintenance is occurring at Cosgrove 1 closed landfill site. Limited information is available for the Dookie, Kialla East and North Shepparton closed landfill sites.

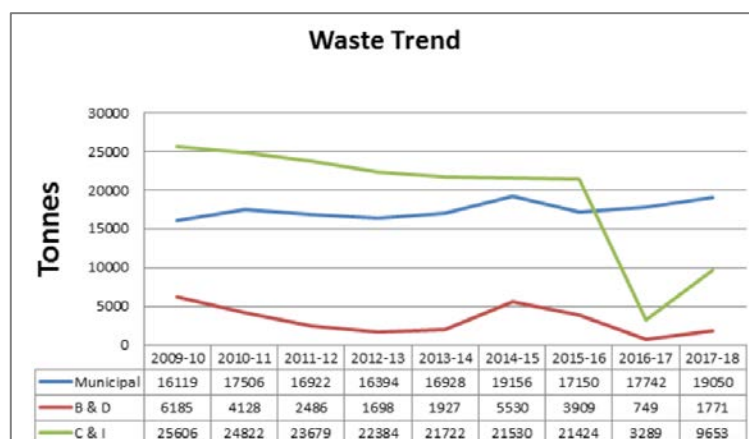
Given that the majority of these closed landfill sites were constructed prior to the development of EPA best practice guidelines (for both construction and operation), little information is known about construction methods, cell size, and the type of waste deposited.

Greater Shepparton City Council is working with the GVWRG to assess the closed landfill sites and to determine the extent of any additional work required and appropriate planning buffers. Further work may arise from the assessment which could include:

- development of costed action plans for high-risk sites;
- engagement of an EPA appointed auditor to develop risk mitigation action plans; and
- development of a bid for funds to implement the risk mitigation plan.

## 5.3 FINANCIAL SUMMARY

The financial outcomes for landfill operational expenses are heavily influenced by the volume of waste received. The graph below shows the tonnage disposed of at the landfill, and the waste trend, since 2009/10, where B&D is Building & Demolition waste and C&I is Commercial & Industrial waste.



The table below shows the operational income at Cosgrove until 2023.

Landfill Operations	17/18 Actuals	18/19 Forecast	19/20 Forecast	20/21 Forecast	21/22 Forecast	22/23 Forecast
<b>Total Income</b>	3,822,508	4,419,625	4,505,821	4,593,719	4,683,353	4,774,758
<b>Total Expense</b>	1,743,394	2,804,446	2,471,543	2,540,863	2,612,214	2,685,657
<b>NET Landfill</b>	<b>2,079,114</b>	<b>1,615,179</b>	<b>2,034,278</b>	<b>2,052,857</b>	<b>2,071,140</b>	<b>2,089,101</b>

It is expected that Cosgrove 2 will receive more waste in 2018/19 in comparison to the 2017/18 financial year given the securing of a contract with a major commercial customer. A significant expense for landfill operations is the EPA landfill levy. Council pay a landfill levy of, on average, \$1.0 million dollar per annum. With stringent EPA licencing guidelines, it is anticipated that landfill operations will need to commit additional operational budget into the future in order to comply. A significant portion of the landfill operation budget will be utilised for landfill aftercare requirements as required by the EPA licence.

The management of landfill also typically requires significant capital expenditure over the life of the landfill. Capital costs include cell construction, cell capping, the purchase of machinery, and aftercare management. Estimate capital costs for Cosgrove 2 and Cosgrove 3 until 2023 are as follows:

<b>Cosgrove 2</b>	<b>17/18 Actuals</b>	<b>18/19 Forecast</b>	<b>19/20 Forecast</b>	<b>20/21 Forecast</b>	<b>21/22 Forecast</b>	<b>22/23 Forecast</b>
Gas Field Dev.	65,000					
Cell 3 Capping	929,377	300,000				
Cell 4 Sideliner	615,163	300,000				
Cell 4 Capping				1,700,000		120,000
Clay Pit Works	322,908	100,000	100,000	100,000		
<b>Cosgrove 3 Cell 1</b>	<b>17/18 Actuals</b>	<b>18/19 Forecast</b>	<b>19/20 Forecast</b>	<b>20/21 Forecast</b>	<b>21/22 Forecast</b>	<b>22/23 Forecast</b>
Subgrade Works	132,099					
Cell Construction	730,098	3,000,000				
Infra. Design	74,195					
Infra. Construction		4,850,000				
<b>Cosgrove 3 Cell 2</b>	<b>17/18 Actuals</b>	<b>18/19 Forecast</b>	<b>19/20 Forecast</b>	<b>20/21 Forecast</b>	<b>21/22 Forecast</b>	<b>22/23 Forecast</b>
Cell Design				150,000		
Cell Construction						4,937,710
<b>Other Capital Costs</b>	<b>17/18 Actuals</b>	<b>18/19 Forecast</b>	<b>19/20 Forecast</b>	<b>20/21 Forecast</b>	<b>21/22 Forecast</b>	<b>22/23 Forecast</b>
Other Services		610,000	200,000	205,000	210,125	215,378
Compactor		650,000				
<b>TOTAL CAPITAL</b>	<b>2,868,840</b>	<b>9,810,000</b>	<b>300,000</b>	<b>2,155,000</b>	<b>210,125</b>	<b>5,273,088</b>

## 5.4 WHERE ARE WE NOW (2018)

### **Construction of Cosgrove 3**

Council are currently in the process of preparing Cosgrove 3 for operations. Cell 1 is currently under construction and construction of site infrastructure will commence in 2019. Provisions have been made in the infrastructure plan for the construction of a waste education facility and an area identified for a future pre-sort facility at the Cosgrove 3 site. A transition plan is being developed for the transition of operations from Cosgrove 2 to Cosgrove 3. It is anticipated that operations will commence at Cosgrove 3 in December 2019.

### **Managing Transactions**

The existing weighbridge and software at Cosgrove 2 is inefficient. It lacks the capabilities required to produce real time reports and online access. This is a necessary requirement for tracking tonnage, setting up customer accounts, and for completing reporting requirements such as EPA levy calculations.

### **Aftercare Management for Closed Landfill**

Aftercare Management Plans are in place for Cosgrove 1 and Kialla closed landfills. EPA requires Council to manage these sites in accordance with the Aftercare Management Plan for approximately thirty years. This involves regular cap maintenance, monitoring and reporting which includes significant expenditure. Aftercare Management Plans still need to be developed for the Dookie, Kialla East and North Shepparton closed landfill sites. The development of these plans and the management of the site in accordance with such plans will require additional funding.

## 5.5 WHERE DO WE WANT TO BE (2023)

### **Construction of Cosgrove 3**

In 2023, Cosgrove 3 is operational. There has been a smooth transition from Cosgrove 2 to Cosgrove 3. Pricing at Cosgrove 3 is competitive and in accordance with a well-developed business plan and pricing model. New technologies for daily cover have been assessed and (if appropriate) implemented to save landfill airspace and funds.

### **Managing Transactions**

Advanced waste management software has been installed which allows transactions and data to be managed in real time. Data recording and reporting issues have been resolved.

### **Aftercare Management for Closed Landfill**

Council continues to work collaboratively with the GVVRRG. Assessment of all closed landfill sites is complete and Council have an improved understanding of the environmental impacts associated with each of the sites. An Aftercare Management Plan has been developed for Cosgrove 2 and Council are proactively managing this site.

At the conclusion of Cosgrove 2 capping, alternate options will be explored for utilising the closed landfills capped surface to achieve a green/carbon neutral Cosgrove Precinct through using the energy produced from landfill gas to establish a solar farm.



## 5.6 STRATEGIC ACTIONS

Strategic Actions	Timeline	Indicative Cost \$
Commission Cosgrove 3 landfill by September 2019	2019 - 2020	\$9.8m
Develop a transition plan to manage the transition from Cosgrove 2 to Cosgrove 3.	2018 - 2019	NA
Develop concept and detailed designs for the construction of a pre-sort facility at the Cosgrove 3 landfill site. The planning stage to commence after Cosgrove 3 is commissioned.	2021 - 2022	\$100,000
Develop a Cosgrove 3 Business Plan (including a pricing model).	2018 - 2019	NA
Install advanced waste management software to resolve current data recording and reporting issues. Installation to be undertaken in with software implementation at the Resource Recovery Centres and with Infrastructure Construction at Cosgrove 3.	2019 - 2020	NA
Work collaboratively with GVVRRG to complete the environmental assessments of the closed landfills and to determine work required and costs.	2018 - 2019	TBD
Develop an Aftercare Management Plan for Cosgrove 2.	2020 - 2021	\$20,000
Explore options for utilising the closed landfills capped surface to develop a renewable energy park at the Cosgrove Precinct. Explore options to maximise environmental and financial outcomes for closed sites.	2022 - 2023	\$30,000

## 6 WASTE EDUCATION

In 2015 Council appointed a Waste Education Officer. The role of the Waste Education Officer is to provide education and promotion of waste management practices to community groups, businesses and organisations, schools and early learning centres. The focus of waste education is the avoidance and minimisation of waste. The 2017 waste audit demonstrates that there are still significant benefits to be achieved through education and changing behaviours.



Council has a full time Waste Education Officer who facilitates the following:

- *Follow Your Rubbish Tours* – these tours comprise of visits to the Cosgrove Precinct, Western Composting and the Shepparton RRC. Community members have the opportunity to see what happens to the contents of their kerbside bins after collection. The aim of the tour is to promote the message of waste avoidance/recycling/re-use and to educate the public on waste disposal.
- *Promotion of Waste Education* – Television, radio, newspaper and social media are tools commonly used to promote waste education. The Waste Education Officer works on both media releases and short video messages that are then distributed to the community.
- *Presentations to Schools and Community Groups* – Interactive presentations about all things waste are given to schools, early learning centres and community groups. These presentations allow for Council to engage with the community in an interactive session and also allow the opportunity for community members to ask questions.
- *Waste audits at schools* – This increases knowledge on recycling and waste avoidance. School students often take the waste message home, thus spreading the message to the wider community.
- *Collaboration with other Authorities* – collaborating with other authorities in the waste sector, such as GVVRRG, Sustainability Victoria, and neighbouring Councils gives the Waste Education Officer the ability to brainstorm innovative ideas for improved Waste Education.

## 6.1 WHERE ARE WE NOW (2018)

Since the recruitment of the Waste Education Officer in 2015, significant progress has been made with Council's waste education initiatives. However, there are still some areas of the community that are not yet engaging with appropriate waste avoidance, re-use and recycling and there is still a lack of understanding and response in regards to the importance of ensuring that the correct materials are deposited into the correct bins.



It is an ideal time to review the current approach to waste education. A Waste Education Strategy, that aligns with Sustainability Victoria's *Victorian Waste Education Strategy 2016* is needed to increase awareness of the environment and the economic impacts of waste management.

Waste tours are successful, however, they are managed on an 'as required basis'. The proactive scheduling of waste tours and presentations will ensure that the waste message is communicated more frequently. Currently there is no space or meeting place available to hold interactive waste sessions. The construction of a dedicated education centre will enable Council to invite community groups to presentations and information sessions.

After the introduction of FOGO in 2015, particular focus and attention was given to waste education initiatives to ensure that the contamination rate of the FOGO bin was reduced. With persistence and process, this has been achieved. However, recent bin audits indicate that the same focus needs to be applied to both the recycling (the yellow lidded) and garbage (red lidded) bins in order to reduce contamination rates in these bins.

## 6.2 WHERE DO WE WANT TO BE (2023)

In 2023, guidance for waste education has been provided in the form of a Waste Education Strategy. New slogans and campaigns are being used that align with State approved campaigns that capture the attention of community groups. Council have a dedicated 'Waste Education' facility which caters for the hosting of presentations and waste events and is being used as an effective tool to change behaviours.

The waste education focus has moved from the FOGO collection to recycling and landfill bin collections. The development of bin disposal guidelines ensures that there is a focus on the correct disposal of waste in the yellow and red lidded bins. This has provided a significant increase in waste diversion figures and opens the way to consider fortnightly red bin collections.

## 6.3 STRATEGIC ACTIONS

Strategic Actions	Timeline	Indicative Cost \$
Develop a Waste Education Strategy that aligns with the <i>Victorian Waste Education Strategy</i> (Sustainability Victoria).	2019 - 2020	N/A
Establish and implement waste education programs that align with Stage Governments programs to capture the attention of community groups.	2018 - 2023	\$50,000
Develop a twelve month schedule for tours and program presentations.	2018 - 2023	N/A
Develop guidelines to ensure all three streams of waste are properly disposed of at council run events, with a focus on the yellow and red lidded bin	2019 -2020	\$15,000
Fit out the Cosgrove 3 Education Centre with effective waste education material and ensure effective use of the facility.	2019-2020	TDB

# 7 LITTER & ILLEGAL DUMPING

Litter and illegal dumping are a challenge for Council to manage. Council's aim is to shift from cleaning and maintaining to prevention. Illegal dumping can be minimised by building proud and strong communities where belonging and ownership are vital. Detection and enforcement must continue as a measure to back up the proactive activities

Greater Shepparton City Council and Parks Victoria work collaboratively to reduce illegal dumping and littering. In 2016/2017 Council ran a community campaign to reduce illegal dumping and to increase community willingness to report illegally dumped rubbish. This involved a radio campaign as well as regular clean ups with Parks Victoria. Whilst a number of community members were involved in the clean-up, community involvement was not as expected and as a result the campaign was not as successful as was anticipated.

For various reasons, many community members face barriers when it comes to disposing of household items and more education is required to increase understanding around the impact dumped litter has on our parks, rivers and community as a whole. Dumped rubbish often consists of significant amounts of material that is free to dispose of at the Resource Recovery Centres.



## 7.1 WHERE ARE WE NOW (2018)

Litter and illegal dumping is a widespread issue across the municipality with regular dumping occurring in a number of 'hot spots' identified by Council. Council's current approach to managing illegal dumping and litter is by necessity largely reactive.

Hot spot areas are walking tracks, bus stops, pedestrian routes from schools to shops, along bike paths and Council Reserves, particularly smaller reserves where there are a limited number of bins present. In some instances, littering is linked to anti-social behaviour.

Seasonal tourism also has an impact on littering whereby tourists visit the municipality and camp near rivers where there are no arrangements for rubbish collection. In many instances, the camp locations are managed by other authorities such as Park Victoria, Goulburn Valley Water, Goulburn Murray Water and Goulburn Broken Catchment Management Authority, therefore, Council has very little control over the litter management in these locations.

Recyclable items are free to dispose of at Council's Resource Recovery Centres (plastic bottles, papers, steel cans, cardboard etc.). However, these recyclable materials are often the ones that are illegally dumped. In 2018, Council obtained a \$20,000 Litter and Illegal Dumping grant from Sustainability Victoria to deter illegal dumping by increasing signage throughout the CBD and installing cameras in hot spots such as parks and near rivers.



## 7.2 WHERE DO WE WANT TO BE (2023)

In 2023, illegal dumping has reduced. Council's Waste Team has worked collaboratively to assess the current locations of Council public litter bins to identifying locations where it is appropriate to install more bins in public places. Reporting mechanisms have also been established so Council can more effectively report and respond on the instances of illegal dumping.

Proud and strong communities are developed and anti-social behaviour is reduced. This is achieved by meeting and working collaboratively with organisations to reduce anti-social behaviour and, therefore, the issue of illegal dumping.

Opportunities for funding to run illegal dumping campaigns will be explored. Innovative campaigns will be developed that will educate the community about the issue of illegal dumping. A new focus on campaigning will ensure that every individual knows that they play a role in keeping Greater Shepparton City Council clean.

## 7.3 STRATEGIC ACTIONS

Strategic Actions	Timeline	Indicative Cost \$
Establish a proactive management plan to manage the issues of illegal dumping.	2018 - 2019	N/A
Establish reporting mechanism to track trends associated with illegal dumping. This will assist in developing campaigns to manage the issue.	2019 - 2020	NA
Assess to assess the current bin locations in public places and explore the opportunities for the installation of additional bins.	2018 - 2023	N/A
Apply for funding for innovative waste management solutions.	2018 - 2023	N/A
Develop a community campaign to encourage people to report litter to the EPA or Council.	2018 - 2023	\$15,000

## 8. SUMMARY OF STRATEGIC ACTIONS

Focus Area	Strategic Actions	Timeline	Indicative Cost \$
<b>Kerbside Waste Collection</b>	Develop a process (internally) to track yellow lidded bin and the red lidded bin contamination as per the green lidded bin (FOGO) service.	2019-2020	NA
	Engage a consultant to undertake a bin audit in an effort to gather data on how residents dispose of waste.	2020-2021	\$50,000
	Develop targeted waste education programs that align with Sustainability Victoria's Waste Education Strategy to encourage the community to dispose of waste correctly, including a targeted FOGO Kerbside Collection Support Campaign.	2018-2023	\$20,000
	Engage an external provider to undertake a survey to gather much needed data so waste education programs can be targeted to specific areas.	2019-2020	\$20,000
	Develop a pilot project to assist people in the community to more easily dispose of household waste. To be developed internally in collaboration with Community Development and Sustainability.	2020-2021	\$20,000
	Focus on implementing actions included in the Government's Recycling Industry Strategic Plan and take advantage of RIIF (Recycling Industry Infrastructure Funding) to ensure that Shepparton has infrastructure in place to manage recycling for end markets.	2019-2020	TBD
	Establish a contract development working group in order to get the best outcome when tendering for the kerbside collection and the processing of recyclables contracts. Costs will be associated with engaging a consultant to develop tender documentation (in the instance the existing tender is not extended under ministerial exemption).	2019-2020	\$40,000
	Develop current internal processes to implement the use of green lidded bins at Council events	2019-2020	TBD
	Focus on implementing recycling bins adjacent to Council waste bins where appropriate across the municipality	2019-2020	TBD
	Investigate and assess the viability of the introduction of 360L recycling services and subject to this review and if determined appropriate any changes will align with the contract renewal or renegotiation.	2019-2023	TBD
	Investigate and assess the viability of transitioning the change to collection frequency of the green and red lidded bins and subject to this review and if determined appropriate any changes will align with the contract renewal or renegotiation	2019-2023	TBD

Focus Area	Strategic Actions	Timeline	Cost \$
Resource Recovery Centres	Install waste management software at all three sites.	2019-2020	\$130,000
	Apply for a Sustainability Victoria grant to install E-Waste sheds at the Shepparton RRC and the Ardmona RRC	2019-2020	\$145,000
	Develop business/concept plans for the redevelopment/upgrades of the Shepparton RRC and the Ardmona RRC. Plans to be developed in collaboration with the GVVRRG.	2019-2020 (Plan)	\$80,000
	Develop an internal working group to research and investigate improvements to onsite technology for the processing of concrete and organics.	2019-2020	NA
	Explore opportunities for product stewardship initiatives such as the service offered through the 'Paintback Scheme'.	2019-2020	N/A
	Develop a business case for the installation of a weighbridge at the Shepparton RRC to improve measures on establishing non subjective charges.	2020-2021	NA
	Engage a Fire Management Consultant to develop Fire Management Plans for all three sites.	2018-2019	\$20,000
	Develop Stockpile Management Plans for the Shepparton and Ardmona RRC's.	2018-2019	N/A
	Establish a process for the improved management and processing of green waste received at Council's RRC's.	2019-2020	N/A
	Develop a Service Plan for all three sites, paying particular attention to the provision of services at the Murchison RRC.	2019-2020	NA
	Explore cross council opportunities with Campaspe Shire for the provision of the Murchison RRC to Campaspe residents.	2019-2020	NA
	Investigate viability of open tip days in lieu of hard waste collection pick up and tip vouchers.	2019-2023	TBD
Landfill	Commission Cosgrove 3 landfill by September 2019	2019 - 2020	\$9.8m
	Develop a transition plan to manage the transition from Cosgrove 2 to Cosgrove 3.	2018 - 2019	NA
	Develop concept and detailed designs for the construction of a pre-sort facility at the Cosgrove 3 landfill site. The planning stage to commence after Cosgrove 3 is commissioned.	2021 - 2022	\$100,000
	Develop a Cosgrove 3 Business Plan (including a pricing model).	2018 - 2019	NA
	Install advanced waste management software to resolve current data recording and reporting issues. Installation to be undertaken in with software implementation at the Resource Recovery Centres and with Infrastructure Construction at Cosgrove 3.	2019 - 2020	NA

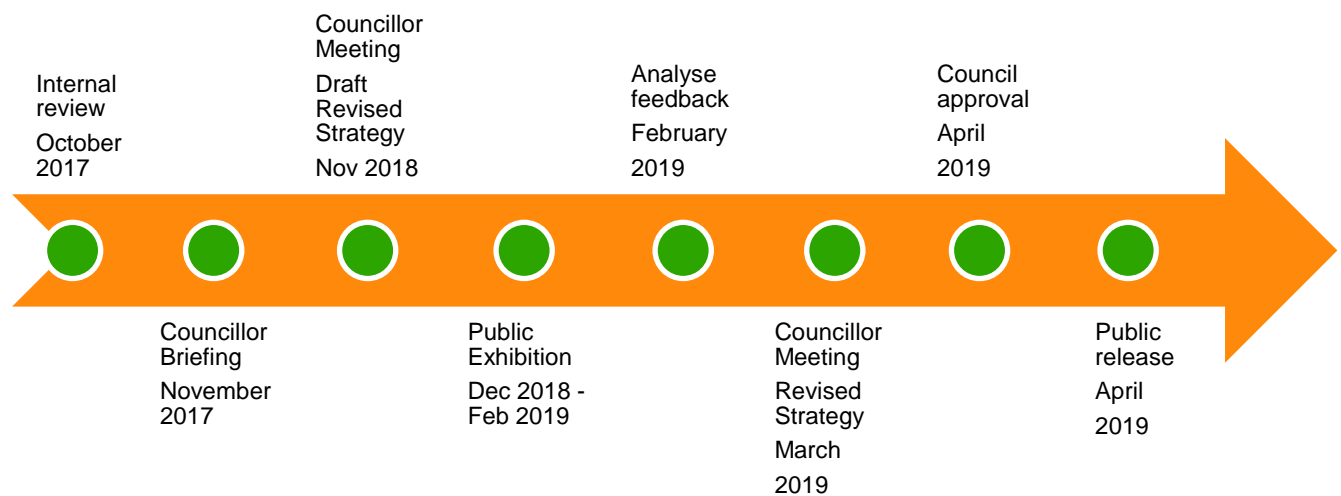
Focus Area	Strategic Actions	Timeline	Cost \$
	Work collaboratively with GVWRRG to complete the environmental assessments of the closed landfills and to determine work required and costs.	2018 - 2019	TBD
	Develop an Aftercare Management Plan for Cosgrove 2.	2020 - 2021	\$20,000
	Explore options for utilising the closed landfills capped surface to develop a renewable energy park at the Cosgrove Precinct. Explore options to maximise environmental and financial outcomes for closed sites.	2022 - 2023	\$30,000
<b>Waste Education</b>	Develop a Waste Education Strategy that aligns with the <i>Victorian Waste Education Strategy</i> (Sustainability Victoria).	2019 - 2020	N/A
	Establish and implement waste education programs that align with Stage Governments programs to capture the attention of community groups.	2018 - 2023	\$50,000
	Develop a twelve month schedule for tours and program presentations.	2018 - 2023	N/A
	Develop guidelines to ensure all three streams of waste are properly disposed of at council run events, with a focus on the yellow and red lidded bin	2019 -2020	\$15,000
	Fit out the Cosgrove 3 Education Centre with effective waste education material and ensure effective use of the facility.	2019-2020	TDB
<b>Litter and Illegal Dumping</b>	Establish a proactive management plan to manage the issues of illegal dumping.	2018 - 2019	N/A
	Establish reporting mechanism to track trends associated with illegal dumping. This will assist in developing campaigns to manage the issue.	2019 - 2020	NA
	Assess to assess the current bin locations in public places and explore the opportunities for the installation of additional bins.	2018 - 2023	N/A
	Apply for funding for innovative waste management solutions.	2018 - 2023	N/A
	Develop a community campaign to encourage people to report litter to the EPA or Council.	2018 - 2023	\$15,000

## 9. CONSULTATION

This document is the Draft revised strategy that has been released for public exhibition prior to formal adoption by Council. Figure 5 shows the timeline for revising the 2013-2023 strategy.

Council will undertake a number of activities to engage the community and other key stakeholders during the public exhibition phase in an effort to consult as widely as possible.

**Figure 5 Strategy revision timeline**





## References

- Environment Protection Act, 1970
- Goulburn Valley Waste and Resource Recovery Implementation Plan - 2017
- *Statewide Waste and Resource Recovery Infrastructure Plan: a 30 year roadmap for Victoria*, Sustainability Victoria, 2018
- Greater Shepparton City Council – Waste management Strategy 2005-2015
- National Waste Policy: Less Waste, More Resources, 2009
- Greater Shepparton Environmental Sustainability Strategy 2014 – 2030
- Greater Shepparton City Council – Council Plan

# 10. APPENDIX A

## 2017 REVIEW OF INITIATIVES

This appendix summarises the background, modelling and recommendation for each of the seven initiatives as discussed in Section 1.1.2 Consideration of Additional Initiatives.

### 1. Providing waste disposal vouchers to residents

#### Background

A number of councils provide vouchers annually, often with the rate notice, to residents to dispose of domestic quantities of hard waste for free at drop-off points. The vouchers are bar coded to avoid duplication and misuse. Residents pay for what they dispose of and are encouraged to appropriately sort materials to take advantage of free disposal.

Accepting and processing waste delivered to the Resource Recovery Centres for free under a voucher system still results in a cost. This cost must be recovered from rate payers and under a voucher system is spread across all rate payers not just those who use the system. Providing vouchers means that all rate payers pay the cost of the service whether they use it or not.

#### Modelling

Council modelled the cost to provide two waste disposal vouchers per household per year to 21,889 rateable properties based on:

- 1 m<sup>3</sup> of domestic waste
- excluding special wastes such as tyres, mattresses, fridges and white goods which are charged separately.

The modelling is based on the current disposal charge of \$50 per m<sup>3</sup>, this excludes administration and printing costs. Table 1 shows the estimated cost of the service based on 30%, 50% and 70% of households using the two vouchers and the impact on the annual waste service charge based on the standard bin configuration provided with the rate of an 80L garbage bin, 240L yellow lid recyclables bin and a 240L green lid organics bin.

Table 2 Modelled costs of providing two waste disposal vouchers annually

Scenarios	Current cost for 1m <sup>3</sup>	Cost of providing 2 vouchers <sup>1</sup>	Increase to annual waste rates charge per property	Annual rates waste charge per property
Status quo	\$50	\$0	\$0	\$261
30% take up of vouchers	\$0	\$656,670	\$30	\$291
50% take up of vouchers	\$0	\$1,094,450	\$50	\$311
70% take up of vouchers	\$0	\$1,532,230	\$70	\$331

<sup>1</sup> based on the current disposal charge of \$50 per m<sup>3</sup> at the RRCs

Note: Rate capping doesn't apply to the annual waste service charge.

If 70% of households used the additional cost to ratepayers would be approximately \$1.53 million excluding the cost of transporting and processing the waste at the landfill, which would also need to be recovered.

Council's annual clean up and disposal costs for littering is approximately \$7,000 per annum which is a major financial analytic against \$1.53 million budget requirement for tip voucher.

While vouchers may assist to improve accessibility for residents to dispose of waste and reduce illegal dumping, it could also reduce the incentive to sort recyclables (which are free to drop off).

One justification for providing waste disposal vouchers is to assist members of the community who can't afford disposal charges. Often those who need this assistance are not property owners and would not be issued vouchers under this system. A more focused support system for those in need is proposed in section 5 of this Appendix.

## **RECOMMENDATION**

It is recommended that waste disposal vouchers are not provided to residents.

## 2. Providing a kerbside hard waste collection service

### Background

Hard waste collection services provide residents the opportunity to place unwanted bulky household items on the nature strip for collection and disposal. They are typically offered once a year, but for reasons of risk, aesthetics and cost, many councils have ceased providing the service.

None of the six councils in the Goulburn Valley Waste and Resource Recovery Region provide hard waste collection services.

Some of the hazards associated with providing an annual hard waste collection service include:

- hazardous materials such as asbestos and household chemicals being placed on nature strips
- unsafe piles of waste stacked on nature strips for several days
- scavenging of the waste stacked on nature strips
- waste being strewn across the roadway
- children accessing/playing in the waste
- fire risk – instances of piles of waste being lit for fun
- aesthetics associated with waste stacked on nature strips
- reduced incentives to recover, recycle and reuse.

### Modelling

The cost to provide an annual hard waste service is estimated to be approximately \$2.6 million, or \$125 per household, based on the following assumptions:

- up to 3 m<sup>3</sup> of specified waste types are disposed of
- exclusions: hazardous or non-specified waste, specialist waste such as mattresses and tyres
- 80% take-up of the service
- \$50/m<sup>3</sup>
- 21,889 rateable properties

Table 3 Modelled costs of providing an annual hard waste collection service

Scenarios	Current cost for 3m <sup>3</sup>	Cost of providing hard waste collection service <sup>1</sup>	Increase to annual waste rates charge per property
<b>Status quo</b>	\$150	\$0	\$0
<b>30% take up of service</b>	\$0	\$985,005	\$45
<b>50% take up of service</b>	\$0	\$1,641,675	\$75
<b>70% take up of service</b>	\$0	\$2,626,680	\$120

<sup>1</sup> based on the current disposal charge of \$50 per m<sup>3</sup> at the RRCs

The cost would be recovered from rate payers through the annual waste service charge and paid by all ratepayers irrespective of use.

## **RECOMMENDATION**

Based on the analysis, and the additional cost and risk associated with this initiative, it is recommended that an annual hard waste collection not be considered further.



### **3. Providing 360L recyclables bins to households**

#### **Background**

Council's current kerbside collection service allows households to choose between an 80L, 120L or 240L bin, and an option to have up to three 240L bins (total of 720 litres) for an additional charge.

Some other councils in the region have considered and decided not to introduce the option for the reasons outlined.

#### **Modelling**

The cost to implement a 360L recyclables bin service for Shepparton is estimated to be around \$900,000 assuming 30% of households would take up the option.

The estimated cost includes the considerations of supply, additional collection charge and distribution/changeover requirements.

The capacity of waste collection trucks could also limit the effectiveness of introducing larger bins. The current lifting capacity of the trucks is 100 kg and some 240L bins have exceeded the weight limit and not been collected.

Any change would require renegotiating the collection contract and these costs have not been estimated. The existing collection contract ends in 2023 and this is considered the most appropriate time to change to larger bins if the need exists and if the community support such a change. The recent bin audit does not support the need for larger bins. Furthermore, the community focus on waste avoidance should see a decline in the generation of waste, including recyclable material.

#### **RECOMMENDATION**

Based on the analysis and the availability of multiple bins to provide additional volume, it is recommended not to offer a 360L recyclables bin.

## 4. Increasing the organics bin collection to weekly collection and decreasing the garbage bin collection to fortnightly

### Background

The introduction of the FOGO collection service in 2015, increased the diversion rate from 42% to 51% in 2017 resulting in additional benefits of extending the life of the landfill and reducing landfill gas emissions.

However, an August 2017 kerbside garbage bin audit found that 39% of material disposed of in the red lid bin was food organics that could be moved into the FOGO bin. Actions suggested in the strategy to help achieve this include:

- increased education;
- increased monitoring of what is going in the bins and response;
- review FOGO bin use to establish if food is placed in the red lid bin because the green lid bin is full; and
- changing the collections of FOGO to weekly and garbage to fortnightly waste bin.

Research shows that it can take between three to five years to embed behaviour change like this and that it is critical to continue education to support householders to sort correctly.

A stable organics contamination rate of 2% or less, allowing for seasonal variations, is required to keep contamination rates low when moving to a weekly FOGO collection and a fortnightly garbage collection. The contamination rate at 31 July 2018 was 2.34%.

Switching to weekly FOGO collections would require separate trucks and logistics which would require a contract renegotiation and additional capital expenditures of the contractor. To move to weekly collection for both the red lid bin and the green lid bin would add significant cost to waste operations. Reducing the red lid bin to fortnightly would require significant consultation and community acceptance.

### Modelling

The cost to implement weekly FOGO collection service for Shepparton is estimated to be around \$700,000, based on:

- an additional 7,500 tonnes of organic waste being delivered to the processor at a cost of \$93 per tonne
- assuming the collection costs would remain almost the same.

Only Strathbogie Shire in the Goulbourn Valley Waste and Resource Recovery Region has a weekly organics collection service. Moira Shire has a fortnightly collection with a contamination rate less than 1% and do not plan to change to a weekly collection.

### RECOMMENDATION

For the FOGO bin collection to remain fortnightly and a focused campaign be implemented to move FOGO material from the red lid bin to the green lid bin.

## **5. Involving charities to assist community members who experience mobility, health or transport issues that impedes their access to household kerbside collections and waste disposal facilities**

### **Background**

Some people in the community experience difficulties in accessing waste disposal facilities, such as the Shepparton Resource Recovery Centre, due to mobility, affordability, health and transport issues.

Council is developing a pilot project to assist those people in the community to dispose of their household waste. This initiative is proposed as a more effective measure to tip vouchers for this group of people.

The trial project will work with charitable organisations to assess people's waste disposal needs and develop options to address these needs.

### **Modelling**

The project would be supported by a policy allowing registered not-for-profit charity organisations and identified community groups to assist community members who experience mobility, health or transport issues that impedes their access to household kerbside collections and waste disposal facilities

## **RECOMMENDATION**

Develop a plan that will enable the Waste and Community Development Team to work collaboratively with charitable services to assist in the disposal of waste on behalf of people in need.

## 6. Improving the Shepparton Resource Recovery Centre resale shop operations

### Background

Council currently operates a resale shop at the front of the Shepparton Resource Recovery Centre. The resale shop provides for the resale of recovered and salvaged materials to the general public as an alternative to landfilling. The resale of these materials provides both economic and environmental benefits to Council and the community.

Estimate economic and environmental benefits of operating the resale shop are as follows:

- Larger selection and acceptance of items for resale as an alternative to landfilling;
- The preparation and display of items for sale and associated value adding of materials to become saleable;
- Sorting of timber from the waste timber stream, de-nailing and breakdown for firewood and kindling, or alternative reuse;
- Pulling apart mattresses into various resale and disposal streams on the basis of a fee for service, plus the revenue from any sale of recovered material;
- Selling Council recycled product, such as chipped green waste, composted organic material, crushed concrete and crushed brick on a cost-plus basis;
- Providing on-site or off-site remanufacture of useful products using salvaged material;
- Sorting clothing materials for sale as rags; and
- Providing other services with direct synergy to the provision of resale services.

### RECOMMENDATION

Council staff to investigate opportunities to enhance the operation of the resale shop to achieve improved economic, environmental and social outcomes for Council and the community.

## 7. Upgrading the Shepparton Resource Recovery Centre so it is a priority hub site

### Background

The Shepparton Resource Recovery Centre opens seven days a week for residents to dispose of household waste and recyclables that are not suitable for disposal in their household bins. Approximately 90% of all materials received through the centre is diverted from landfill. The centre typically receives around 23,800 tonnes of waste through the gate per annum of which 21,600 tonnes is separated for secondary uses either processed on-site or diverted directly to the relevant processors/remanufactures without third party intervention. This ensures that the material is not disposed of inappropriately and the bulk of it stays in the region contributing to the local economy.

Council staff have been working in close collaboration with the GVVRRG and councils on the long-term planning and business case for waste and resource recovery infrastructure across the region. This planning included an independent review of the Shepparton Resource Recovery Centre which identified the site as priority 1 hub site. To meet the defined minimum practicable standards for a hub site the assessment identified the upgrades and associated costs as referred to in table 2 below.

### Modelling

Table 2 – Shepparton Resource Recovery Centre Upgrade

Description	Cost estimate
Low-cost scenario includes:	
<ul style="list-style-type: none"> <li>Extension and rerouting of exit road in north-west corner to allow for additional parking and a turning loop</li> <li>Construction of toilets at the front of the existing workshop</li> </ul>	\$255,000
Medium-cost scenario includes:	
<ul style="list-style-type: none"> <li>Extension and rerouting of exit road in north-west corner to allow for additional parking and a turning loop</li> <li>Construction of toilets at the front of the existing workshop</li> <li>Construction of semi-hardstand area to south and south-east of site for green waste and building materials</li> <li>Construction of a long-covered area to all recycling bays (additional cost for high roof has been included)</li> <li>Construction of a second covered area in the mattress area (could also store e-waste)</li> <li>Construction additional road loop through green waste and building materials area</li> </ul>	\$1,050,000



*High-cost scenario - complete redevelopment of the site includes:*

- *Demolition of existing workshop and waste and recycling bays, removal of rubble and material*
- *Construction of a new, large-span recycling shed to the south of the current workshop and animal shelter*
- *New access roads into the south portion of the site* \$4,520,000
- *Construction of new general waste elevated platform where the current mattress area is located*
- *New hardstands and line marking*

High-cost relocation scenario includes:

- Full relocation of RRC facility to a new site, including costs for site selection study, concept designs and detailed design (note Reincarnate has assumed the site will be developed on existing council owned land and as such we have not included costing for land purchase)
- The new site will meet the defined minimum practicable standard for hub sites outlined in the GV RRC Strategy, including: \$4,800,000 to \$6,000,000
  - Construction of a large-span, drive-through recycling shed (30m x 50m)
  - Full hardstands to recycling areas
  - Paved roads
  - Covered areas where appropriate
  - Engineered platform for general waste
  - Fencing, security and drainage

## RECOMMENDATION

It is recommended that the following projects to upgrade the Shepparton Resource Recovery Centre as part of the capital budget process for 2018/19 be considered:

- \$255k to improve traffic flow around the Shepparton site, in particular the resale shop, as per the concept plan already prepared. Requires detailed design to be shovel ready (low cost scenario).
- \$40k to undertake business planning and the development of concepts for the redevelopment of both the Ardmona and Shepparton RRCs.
- \$110k to setup a facility at the Shepparton RRC for the collection and sorting of e-waste. The Victorian Government plans to ban e-waste from being deposited in landfill in July 2019.



