



LODDON SHIRE COUNCIL WASTE MANAGEMENT STRATEGY 2020-2030



LODDON
SHIRE

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Council Plan 2017-2021
Fees and Charges
Kerbside Waste and Recycling Policy
Procurement Strategy
Rating Strategy

Australian Government National Waste Policy 2018
Recycling Victoria, A new Economy Feb 2020
Victoria Statewide Waste and Resource Recovery Infrastructure Plan 2018
Victorian Government Loddon Mallee Waste and Resource Recovery Group (LMWRRG) Statement of Expectations 2019

RELATED LEGISLATION: Loddon Mallee Waste Resource Recovery Group Documents:
Implementation Plan 2016-2026
Strategic Plan 2017-2020
Organics Strategy 2019-2025
Reginal Litter Plan 2019
Environment Protection Act 1970
Local Government Act 2020
Public Health and Wellbeing Act 2008

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This document is available in alternative formats (e.g. larger font) if requested.

ACKNOWLEDGEMENT OF COUNTRY

Loddon Shire Council acknowledges the Traditional Custodians of the land comprising the Loddon Shire Council area. Council would like to pay respect to their Elders both past and present.

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EXECUTIVE SUMMARY

The Loddon Shire Council (Council) has a mission to enhance the sustainability and liveability of the Shire. Sound waste management practices play an important role in achieving this. This strategy provides a proportional framework for developing and implementing environmentally sustainable waste management policies and initiatives over a ten-year period. Several targets are identified, the achievement of which will rely on the commitment of all key stakeholders including the Council, Loddon residents, businesses, and visitors.

Where we are now

Area	Current performance
Diversion	<ul style="list-style-type: none">• 38% diversion across the Shire including kerbside and resource recovery centres (RRCs)• 28% diversion rate at kerbside• We are separating out our hard waste to maximise recovery• E-waste, mattresses, metals, tyres, cardboard, concrete, green organics and other streams are captured at RRCs
Circular economy	<ul style="list-style-type: none">• >3,900 tonnes of waste and recyclables are generated across the Shire per annum (≈525 kg/person/annum)• >1,500 tonnes of recyclables are captured across the shire or ≈200 kg/person/annum• We have a policy that encourages buy-back of recycled material
Resident satisfaction	<ul style="list-style-type: none">• We offer our residents four free transactions per annum to bring their waste and recyclables to our RRCs• Loddon Shire received an index score of 69 for waste management in the Local Government Community Satisfaction Survey

Where we would like to be by 2030

The following objectives will help us achieve our key performance indicators (KPIs):

- increase diversion at kerbside and RRCs
- deliver cost-effective, efficient and continuously improved services
- promote the circular economy and drive up demand for recycled products.

Area	Key performance indicator
Diversion	Aim for >60% diversion across the Shire by weight by 2030.
Circular economy	<p>Aim to purchase back 5-10%¹ (by weight) of recyclables (comingled and organics) disposed across the Shire in goods (park benches, bollards, irrigation, compost, etc) per annum by 2030.</p> <p>Aim to reduce kilograms per capita (kerbside and resource recovery centres) by 10%, from 525 to 470 kg/capita/annum by 2030.</p>
Resident satisfaction	Aim for >70 index score for waste services in the Local Government Community Satisfaction Survey by 2030.

¹ Percentage to be confirmed when baseline established

1 PURPOSE

The waste management strategy outlines key elements involved in managing Council's waste services and waste facilities.

It combines management, financial, and technical practices with the aim to improve systems and processes to maximise the use of our limited resources and move to better practice management of waste and recyclables.

2 BUDGET IMPLICATIONS

Indicative costs have been estimated for the proposed work plan, however, several actions within the Strategy will require detailed scoping before they can be properly costed.

Estimated costs (additional to operating budgets) over the life of the Strategy total \$730,000. The indicative timing for expenditure is:

- 2020-21: \$3,000
- 2021-22: \$53,000
- 2022-23: \$58,000
- 2023-24: \$43,000
- 2024-25: \$343,000
- 2025-26: \$43,000
- 2026-27: \$43,000
- 2027-28: \$58,000
- 2028-29: \$43,000
- 2029-30: \$43,000

3 RISK ANALYSIS

Without an agreed strategy, there are risks that Council's efforts and resources could be applied to ad hoc tasks without clear objectives or results. The Strategy identifies priorities and actions which reflect research, consultation and consistency with wider regional directions to give clarity on where Council's resources and efforts should be directed.

It will never avoid all ad hoc initiatives and opportunities being raised and pursued, but decisions by Council to pursue these opportunities can be measured against the relative merits (and resourcing requirements) of the initiatives in this Strategy.

4 GLOSSARY OF ACRONYMS AND TERMS

Acronym	Description
CDL	Container deposit legislation
RRC	Resource Recovery Centre. This is often called a transfer station and the two terms are interchangeable.
E-waste	Electronic waste. This includes anything with a cord such as computers, televisions, and appliances (e.g. microwave) but does not include white goods such as refrigerators.
KPI	Key Performance Indicator
LMWRRG	Loddon Mallee Waste and Resource Recovery Group

5 INTRODUCTION

This document details Council's Waste Management Strategy for 2020–2030 (Strategy). The Strategy encompasses Council's overall vision and mission and how this relates to waste management, our waste service offering to residents, waste performance and current initiatives. We set out three objectives and an action plan over the next ten years, with associated KPIs to measure our success.

This is a fluid document in an ever-changing industry. Recent changes and challenges include ongoing impact of China Sword, roll out of four bins at kerbside in metro Vic, COVID_19 and the recent release of Recycling Victoria, A new Economy in February 2020 which may impact kerbside bin service offered to Victorian residents and have new waste targets.

5.1 Who we are

Loddon Shire (Shire) is in the Loddon Mallee region of Victoria, 175km northwest of Melbourne² (Figure 1). The terrain across the Shire varies greatly, encompassing approximately 6,700 square kilometres of land including prime agricultural and farming areas which support the primary agricultural and horticultural activities in the region. Many within the population are employed in agriculture, forestry and fishing, the largest industry in the area by employment.

The Shire has an estimated population of 7,500 people³, with half the population distributed among several small towns. Averaging just over 1 person per square kilometre, the Shire has a low density compared to other councils within Victoria.



Figure 1: Loddon Shire within Victoria⁴

² <https://knowyourcouncil.vic.gov.au/councils/loddon>

³ <https://profile.id.com.au/loddon>

⁴ Image from Loddon Shire Council Plan 2017 - 2021

5.2 Council vision and mission

In June 2017, Council released the 2017-2021 Council Plan. This plan contained Loddon Shire Council's Vision, Mission and Values to be used to guide Council's decisions and growth for the years to come.

5.2.1 Vision

Loddon Shire Council's vision is to be a prosperous, vibrant and engaged community.

5.2.2 Mission

Its mission is to enhance the sustainability and liveability of Loddon Shire.

As can be seen above, sustainability is at the forefront of Council's goals and objectives, within which waste and resource management play a critical role. The Strategy considers waste management planning for Council over the next ten years.

5.3 Link to the LMWRRG

Council is part of the Loddon Mallee Waste and Resource Recovery Group (LMWRRG) along with seven other Victorian councils. The LMWRRG facilitates the procurement of waste and resource recovery infrastructure and services across the eight councils. It also aims to educate businesses and communities to reduce waste going to landfill and to integrate regional and local knowledge into State-wide waste strategies. Council is committed to remaining a proactive member of the LMWRRG to work with the group for better waste and resource recovery outcomes as well as seeking their support and guidance where appropriate.

6 WASTE SERVICE OFFERING FOR OUR RESIDENTS

Council provides some 3,800 households with kerbside weekly general waste and fortnightly comingled recycling bins. We also have six facilities that accept waste and recyclables. This includes three landfills which also accept recyclables, and three resource recovery centres (RRCs) which accept a range of recyclables including metals, tyres, E-waste, and mattresses. A map of waste infrastructure throughout Loddon Shire can be seen in Figure 2 below.

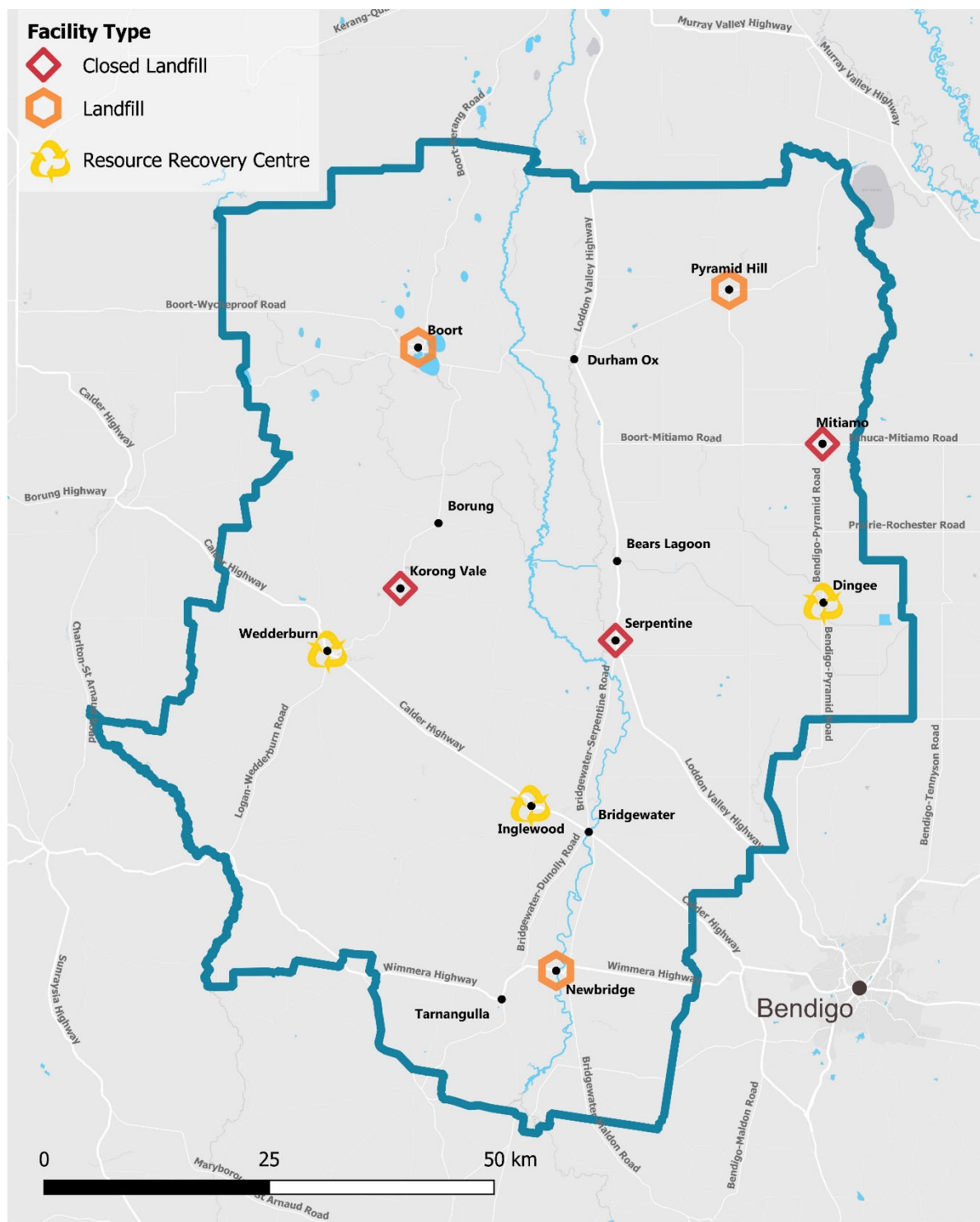


Figure 2: Loddon Shire area and waste infrastructure

7 STRATEGIC CONTEXT

The following section outlines the concepts, policies and strategies that influence this document. This includes broader waste management concepts such as the waste hierarchy and circular economy, and relevant national, state, regional and local policies and strategies.

7.1 Waste hierarchy

The *Environment Protection Act 1970* describes eleven principles of environment protection which are intended as a guide for EPA Victoria⁵. The waste hierarchy is one such principle which guides the management of waste by preferencing options at the top of the hierarchy. Figure 3 illustrates the waste hierarchy, with avoidance being the most preferable waste management option and disposal being the least preferable option.

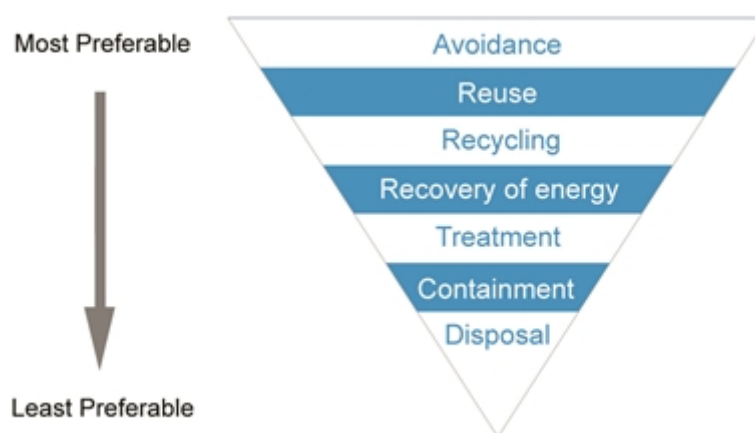


Figure 3: Victoria EPA Waste Hierarchy⁵

⁵ <https://ref.epa.vic.gov.au/your-environment/waste>

7.2 Circular economy

Typical consumer systems follow make-take-dispose models, which consume materials in an inefficient manner and can negatively impact the environment. A circular economy model, detailed in Figure 4, is characterised by the avoidance of waste through the efficient and productive use of materials throughout their life cycle. This is achieved by prioritising the reduction of waste through good design and by encouraging the reuse and repair of items to keep materials within the system for as long as possible before disposal. When items can no longer be reused or repaired, they should be made available for recycling and energy recovery processes, with minimal materials sent to landfill if they cannot be recovered. An effective circular economy requires the development of markets for recovered materials to complete the cycle and maximise material use.

A circular economy encourages manufacturers and retailers of products to provide end-of-life options for the recycling and energy recovery stage of the cycle. This might include a service that assists consumers with maintenance or disposal of a product.

While a circular economy aims to reduce environmental impacts, it has the added benefits of maximising the economic value obtained from resources, encouraging innovative thinking, stimulating economies, generating business in existing areas and encouraging the development of new businesses and jobs.

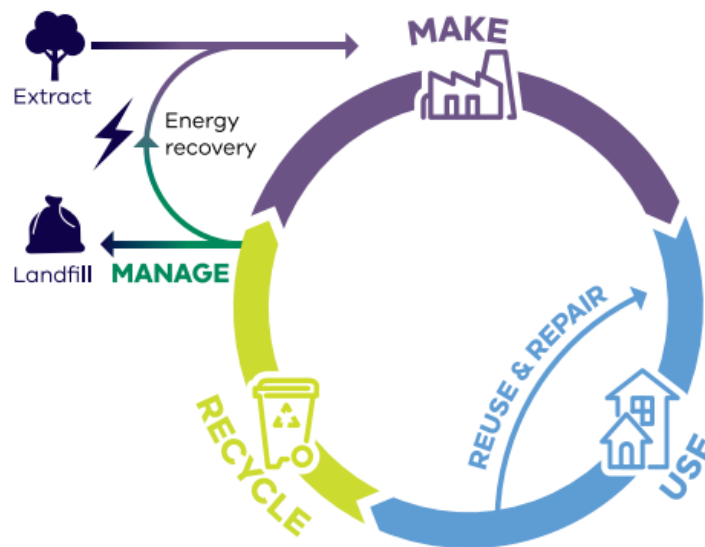


Figure 4: Resource flows in a circular economy from Recycling in Victoria, a New Economy, Feb 2020

7.3 Relevant policies and strategies

The Strategy is informed by the policies, strategies and other waste-related documents detailed in Figure 5, including the *Australian Government National Waste Policy 2018* and *Recycling Victoria, A New Economy 2020*.

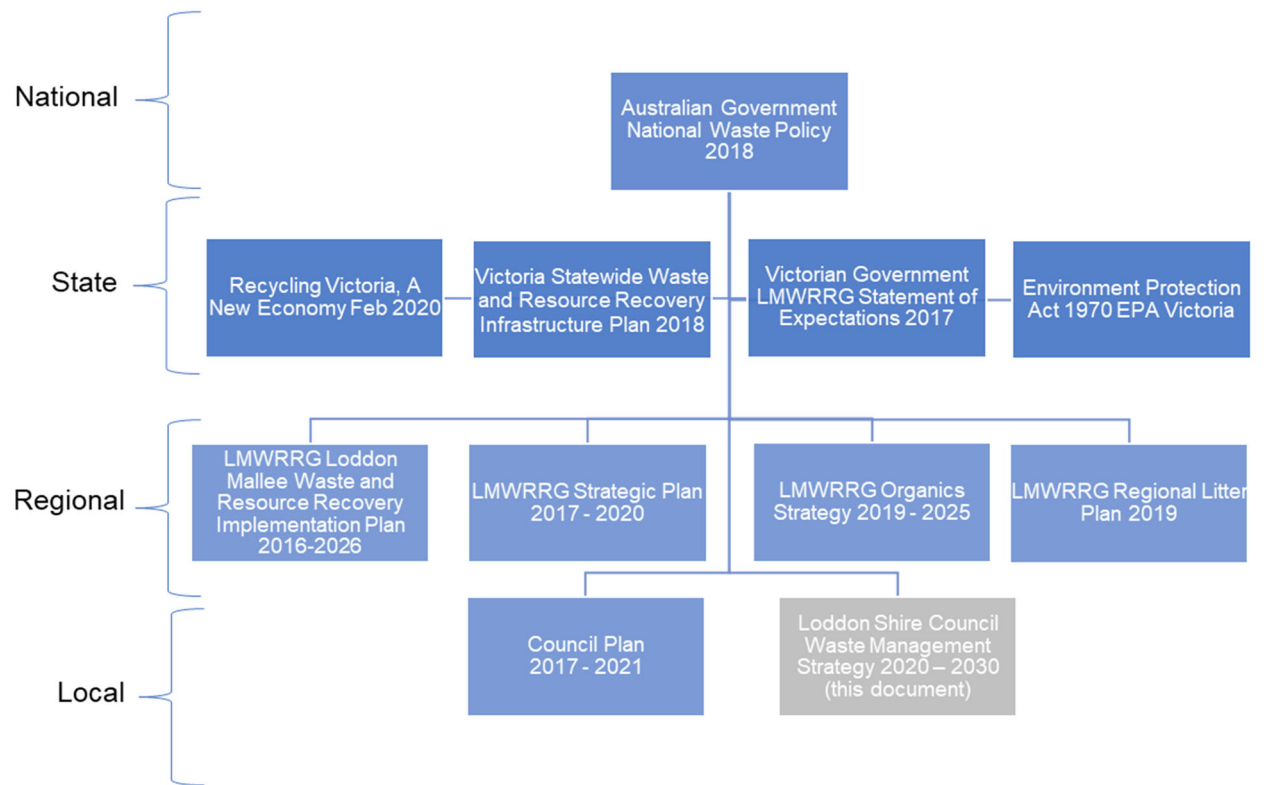


Figure 5: Relevant policies, strategies and other waste-related documents⁶

⁶ Note LMWRRG = Loddon Mallee Waste Resource Recovery Group

7.4 Key objectives from these policies and strategies

Key themes across these documents include reducing waste generation and an increase in diversion, particularly through organics recycling.

Relevant objectives/direction from these policies and strategies are included below.

1. Recycling Victoria, a New Economy (2020). In this document the Victorian Government is:
 - proposing a four-bin system at kerbside including comingled recycling, general waste, food and garden organics and glass⁷
 - aiming to reduce waste generation per capita by 15 per cent and to divert 80 per cent of waste from landfill by 2030. There is an interim diversion target of 72 per cent by 2025
 - aiming to cut the volume of organic material going to landfill by 50 per cent between 2020 and 2030, with an interim target of 20 per cent reduction by 2025
 - aiming for 100 per cent of households have access to a separate food and organics recovery service or local composting by 2030.
2. The LMWRRG Waste and Resource Recovery Implementation Plan 2016-2026 indicates the LMWRRG is aiming to:
 - educate the community to reduce waste generation per capita
 - enable beneficial use of organics
 - increase reuse and resource recovery rates across the region
 - encourage and support innovation and research to develop new waste management solutions and markets.
3. The LMWRRG developed a Regional Organics Strategy 2019-2025 with an overarching vision of zero organics to landfill.

⁷ See <https://www.vic.gov.au/four-bin-waste-and-recycling-system>

8 LODDON SHIRE COUNCIL CURRENT WASTE PERFORMANCE

Council achieved the following results in 2019-20.

38%

diversion rate overall including kerbside and RRCs. Total waste generation is 3,900 tonnes at RRCs/landfills and kerbside or 525 kg/person

1,500 tonnes recycled or 200 kg/person



across the Shire including metals, glass, cardboard, E-waste. 45% of this is from kerbside comingled recyclables.

28%

diversion rate at kerbside which is a 2% increase from 2018-19 and a 5% increase from 2016-17.

Over 300 tonnes of green waste



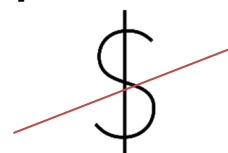
recovered at our RRCs.

7 tonnes of mattresses



recovered in 2019-20 and made into various items including carpet, roof sheeting and mulch.

Four waste transactions per annum



provided to our residents. Each quarter, residents can bring 4m³ of domestic waste and recyclables to RRCs and landfills for free.

New E-waste infrastructure built



at the Boort, Dingee, Inglewood and Wedderburn facilities over the past two years. We have recovered over 50 tonnes of E-waste over the past four years.

Improved hard waste recovery and tracking



with Council separating recoverable items from non-recoverable items. We are tracking volumes of each material to better understand hard waste in the Shire.

9 OBJECTIVES FOR LODDON SHIRE COUNCIL

Council has three objectives relating to waste and recycling:

1. deliver cost-effective, efficient and continuously improved services
2. increase diversion at kerbside and RRCs
3. promote the circular economy and drive up demand for recycled products.

Objective One – Deliver cost-effective, efficient, and continuously improved services

Council will continue to deliver cost-effective, efficient, and continuously improved services for our residents. We will seek opportunities to improve in these areas and continue to measure our performance. For example, reducing unnecessary collection of street litter bins and finalising a voucher system or similar in place of scheduled fee free days.

Objective Two – Increase diversion at kerbside and at RRCs

In line with national and state targets of reducing waste to landfill, Council is also aiming to increase diversion. The Victorian Government has set a target of 80 per cent diversion of waste from landfill by 2030 and LMWRRG has a vision of zero organics to landfill.

Increasing diversion at kerbside and at our RRCs is one way that Council can contribute to these targets. We currently offer kerbside collection of general waste to landfill and comingled recyclables. We also separate out our hard waste where possible to maximise recovery and will continue to do so. Each landfill and RRC offers several separate recycling streams. However, there is room for improvement, and we are committed to exploring how we can increase diversion at kerbside and RRCs. For example, organics and glass bins at kerbside, and home composting solutions if kerbside organics is not viable.

Objective Three – Promote the circular economy (including reducing waste generation) and drive up demand for recycled products

Council will explore methods for promoting the circular economy within the Shire. The Victorian Government and LMWRRG aim to reduce waste generation per capita and increase re-use opportunities, which are all aligned with the principles of the circular economy and waste hierarchy. There are also opportunities to drive up demand for recyclables through Council procurement of goods.

10 KEY PERFORMANCE INDICATORS

The following key performance indicators (KPIs) will be used to assess our success against our Objectives.

Table 1: KPIs

Area	Key performance indicator
Diversion	Aim for >60% diversion across the Shire by weight by 2030.
Circular economy	Aim to purchase back 5-10% ⁸ (by weight) of recyclables (comingled and organics) disposed at kerbside in goods (park benches, bollards, irrigation, compost, etc) per annum by 2030.
	Aim to reduce kilograms per capita (kerbside and resource recovery centres) by 10%, from 525 to 470 kg/capita/annum by 2030.
Resident satisfaction	Aim for >70 index score for waste services in the Local Government Community Satisfaction Survey by 2030.

⁸ Percentage to be confirmed when baseline established

11 ACTION PLAN AND FUNDING

Table 2: Actions to achieve objectives, including timelines⁹

Action	Timeline	Responsibility	Funding (additional to operating budget)
Objective One - Deliver cost-effective, efficient, and continuously improved services			
1. Better understand street litter bins required in the Shire to minimise collection costs whilst ensuring littering is also reduced.	Jun. 2023	Works and Assets and Infrastructure	\$0
2. Complete roll out of voucher system for RRC drop offs to all residents to replace fee free days.	Monitor annually 2020 - 2030	Works	\$3,000 per year
3. Explore options to maximise lifespan of landfills and RRCs. Update facilities as required to ensure longevity. Apply for funding support if applicable.	Review site masterplans to maximise lifespan of assets every 5 years. Next due 2022.	Works and Assets and Infrastructure	\$30,000
4. Convert Newbridge landfill into an RRC.	2024 - 2025	Works and Assets and Infrastructure	\$300,000 (Potential to apply for Victorian Government contribution)
5. Consider opportunities to minimise kerbside waste costs. For example, joint procurement opportunities (if these will reduce costs), a rise and fall calculator that adjusts the gate rate based on the price of saleable comingled recycling materials etc.	2021 - 2030	Works	\$0
6. Additional support the recycling of materials from our landfills and RRCs.	Annually	Works	\$40,000
7. Continue to track hard waste resource recovery performance and cost. Identify opportunities to increase re-use and recovery.	Monitor annually 2021 - 2030	Works	\$0
8. Review viability of E-waste contract after first two years. Adjust gate fees accordingly.	Monitor bi-annually 2022 - 2030	Works	\$0
9. Investigate the viability of a dedicated Environmental Officer that includes a waste focus.	Jun. 2025	Works	\$0
10. Review all gate fees to ensure fees are appropriate given recovery and landfill costs.	Review annually 2021 - 2030	Works	\$0
Objective Two - Increase diversion at kerbside and at transfer stations			
1. Explore costs, savings and potential diversion outcomes from organics recycling bins and/or glass bins at kerbside, and/or home composting or	Dec. 2021	Works	\$10,000

⁹ Note RRC = Resource Recovery Centre/Transfer Station

Action	Timeline	Responsibility	Funding (additional to operating budget)
other models to increase household diversion. Compare to business as usual.			
2. Increase capture and reduce contamination of organics at transfer stations and landfills. Consider selling/giving back to community as mulch and if not viable, using as mulch on each site to improve amenity. Include supporting documentation to help minimise contamination and weeds (e.g. instructions for operators and RRC visitors).	Decision by Jun. 2021 Supporting documentation by Dec. 2021	Works	\$0
3. Keep abreast of waste to energy options for the region. Support local initiative of small scale waste to energy technology development, through the provision of nil cost undertakings. Investigate potential solutions for Loddon Shire and Council.	As required	Works	\$0
Objective Three - Promote the circular economy (including reducing waste generation) and drive up demand for recycled products			
1. In line with the Procurement Policy, buy back goods containing recycled content (bollards, park benches, compost, irrigation) and track kilograms purchased. Ensure Procurement Policy encourages the purchase of products containing recycled content.	Track volumes and monitor annually	All departments	\$0
2. Support businesses engaging in circular economy approaches. 'Businesses' may include those reducing waste, re-using materials, repairing, food sharing, extending product lifespan, using recycled materials in products, etc. 'Support' may include Council purchasing goods and engaging services of these businesses, providing grants, etc.	Assess progress in Dec. 2021	All departments	\$0
3. Explore opportunities to improve community participation in the circular economy (e.g. repair cafes, local sharing platforms). Apply for Victorian Government funding if required.	Assess progress in Dec. 2021. New facilities built and businesses established by 2025.	Works, LMWRRG	\$0 Apply for Victorian Government funding if required.
4. Explore opportunities to improve our agriculture sector's use of waste materials, particularly organics.	Consultation with sector June 2022, identify opportunities and implement June 2023, monitor annually	Works, LMWRRG	\$0 Apply for Victorian Government funding if required.

APPENDIX 1: DETAILED WASTE DATA

Overall waste generation and diversion

Residents in Loddon Shire disposed 3,900 tonnes of waste in 2019-20, including 2,400 tonnes of general waste, 1,200 tonnes of recyclables and 300 tonnes of organic waste (Figure A1). This includes tonnes collected at kerbside and tonnes brought into our RRCs and landfills.

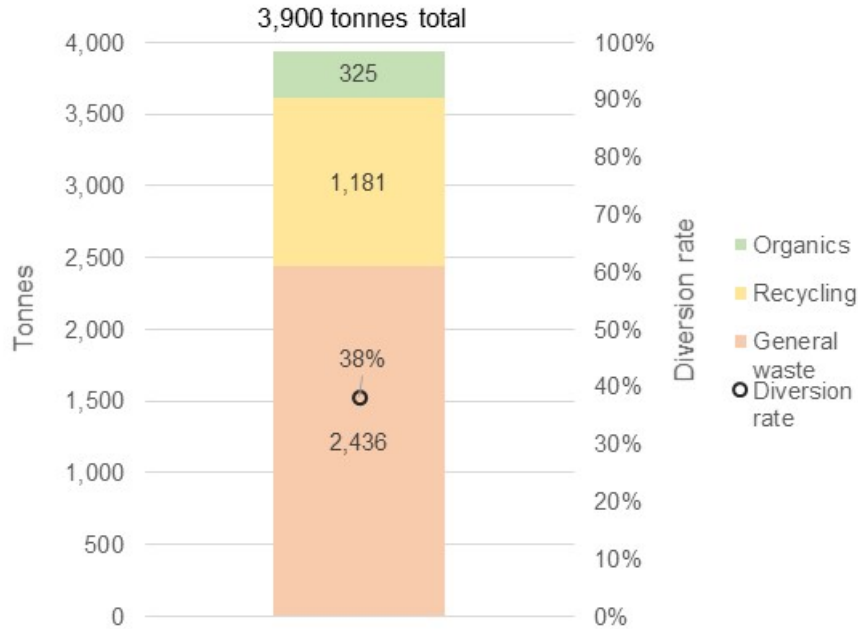


Figure A1: Total waste by stream and waste diversion rate across Council

Kerbside

In 2019-20, 2,200 tonnes of waste was disposed through the kerbside service, including 1,600 tonnes of general waste and 600 tonnes of recyclables (Figure A2). This equates to 300 kilograms per resident. Waste collected via the kerbside service decreased by 600 tonnes from 2017-18 to 2019-20.

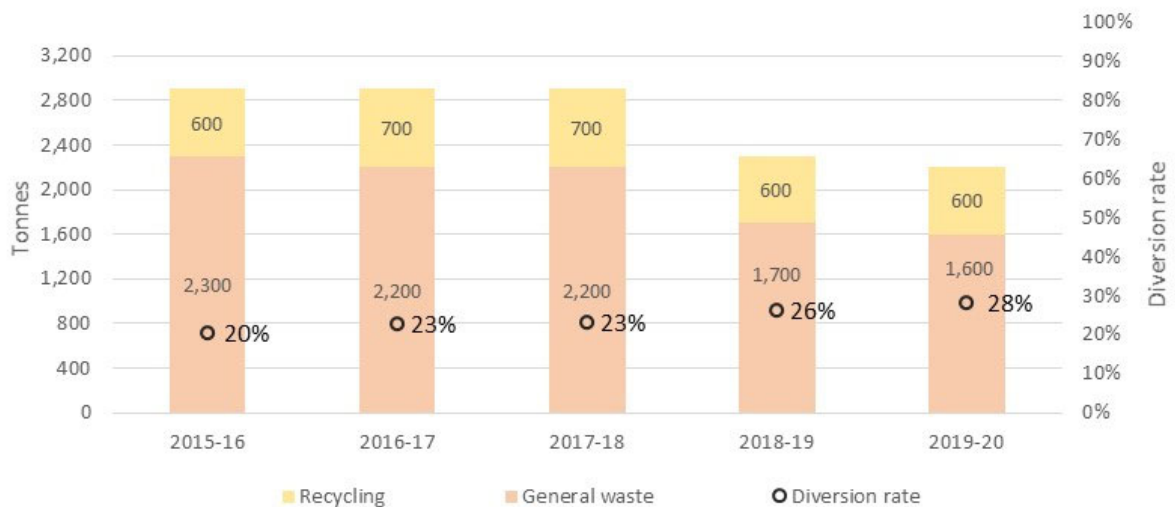


Figure A2: Kerbside waste by stream and waste diversion rate from 2015-16 to 2019-20

Resource recovery centres and landfills

We have six facilities that accept a variety of waste streams. The tonnes accepted at each facility in 2019-20 can be found in Figure A3, and tonnes by stream in 2019-20 across all facilities in Figure A4. Dingee accepts the lowest volumes per annum (approximately 30 tonnes) while the other facilities accept around ~250-350 tonnes per annum.

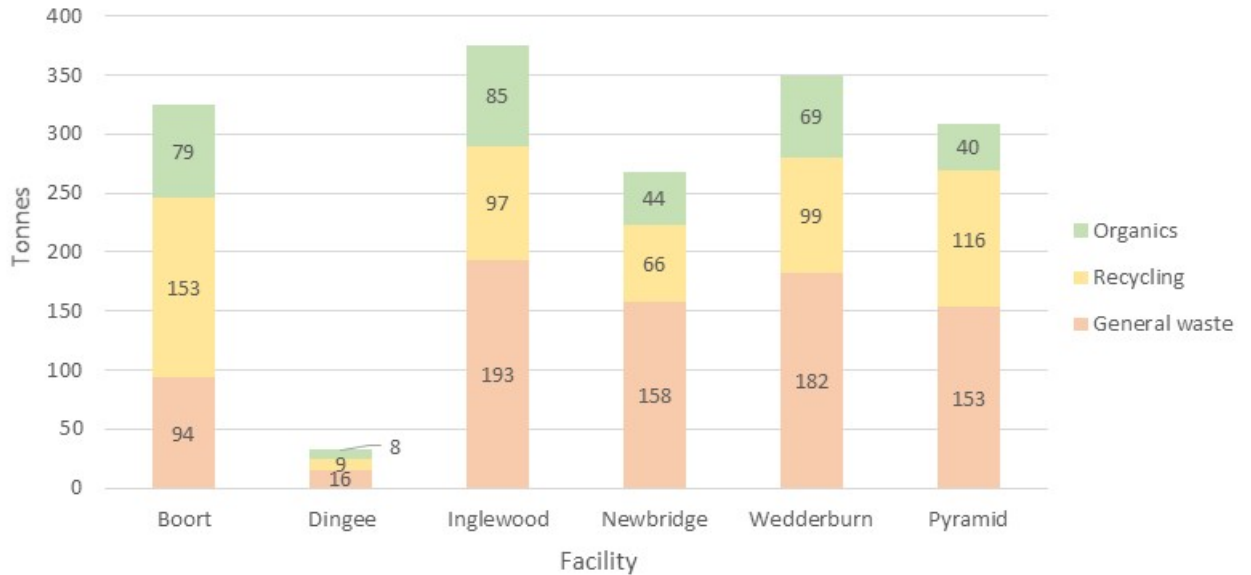


Figure A3: Total waste at each facility by stream in 2019-20

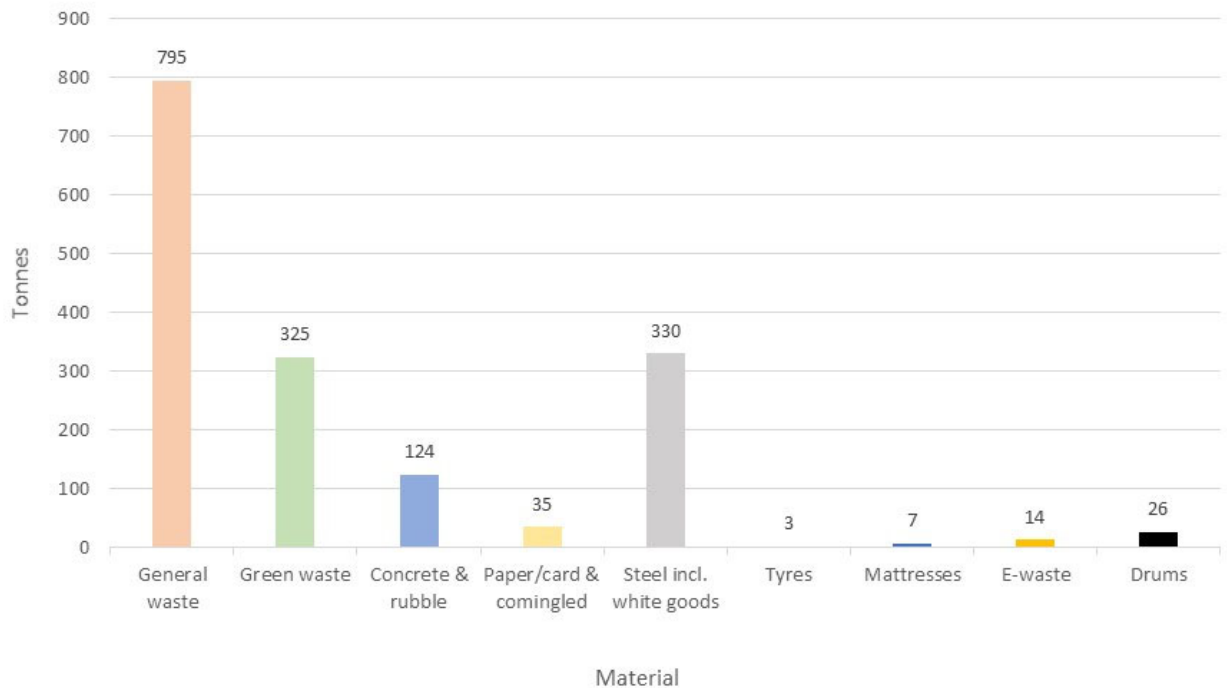


Figure A4: Total waste by material type in 2019-20 – RRCs and landfills only

Table A1: Total waste (kerbside and RRCs) by stream and waste diversion rate (2015-16 to 2019-20)

Waste stream	Tonnes per annum				
	2015-16	2016-17	2017-18	2018-19	2019-20
General waste	2,939	2,673	2,646	2,326	2,436
Recycling	1,129	1,514	1,137	1,066	1,181
Organics	179	301	157	218	325
Total tonnes	4,247	4,487	3,940	3,610	3,942
Diversion rate	31%	40%	33%	36%	38%

Table A2: Total waste by stream and waste diversion rate (2015-16 to 2019-20) – Kerbside waste only

Waste stream	Tonnes per annum				
	2015-16	2016-17	2017-18	2018-19	2019-20
General waste	2,323	2,196	2,183	1,730	1,600
Recycling	597	654	659	620	600
Total tonnes	2,920	2,850	2,842	2,350	2,300
Diversion rate	20%	23%	23%	26%	28%

Table A3: Total waste by stream and waste diversion rate (2015-16 to 2019-20) – RRCs and landfills only

Waste stream	Tonnes per annum				
	2015-16	2016-17	2017-18	2018-19	2019-20
General waste	616	476	463	597	795
Recycling	532	860	478	446	539
Organics	179	301	157	218	325
Total tonnes	1,327	1,637	1,098	1,261	1,659
Diversion rate	54%	71%	58%	53%	52%

Table A4: Total waste by material type in (2015-16 to 2019-20) – RRCs and landfills only

Material	2015-16	2016-17	2017-18	2018-19	2019-20
General waste	616	476	463	597	795
Green waste	179	301	157	218	325
Waste oil	5	0.2	0.3	2	0
Concrete & rubble	0	243	36	68	124
Paper/card & comingled	206	410	239	64	35
Steel	284	134	161	286	330
Tyres	10	20	1	3	3
Mattresses	2	10	5	5	7
E-waste	3	25	5	9	14
Drums	22	18	32	10	26
Total	1,327	1,637	1,098	1,261	1,659
Diversion rate	54%	71%	58%	53%	52%