



2022-2026

DRAFT

WASTE AND RESOURCE RECOVERY STRATEGY



Mildura Rural City Council

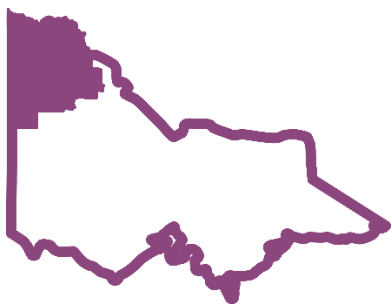
ACKNOWLEDGEMENTS

Mildura Rural City Council (Council) would like to thank the following people for their contribution to the development of the *Waste and Resource Recovery Strategy 2022-2026*:

- Community Survey Participants
- Stakeholder Workshop Attendees
- Emily Quinn Smyth, Waste Education & Project Officer
- Sarah O'Connor, Waste Management Coordinator
- Bonnie Pettitt, Environmental Sustainability Coordinator
- Jay Smith, Environmental Sustainability Coordinator
- Angela Umback, Human Resources Coordinator
- Matt George, Manager Parks & Waste Services
- Jason Garraway, Team Leader Waste Facilities

Council acknowledges the traditional custodians of the land which now comprises the Mildura Rural City Council area, and to those of our neighbouring municipalities. We pay our respects to Elders past and present, we celebrate and respect their continuing culture and connection to the land.





Local Government Area

Mildura Rural City Council covers 22,082 square kilometres, almost 10% of Victoria.



Population

Our resident population is over 55,000 and we have the ninth largest city in Victoria.



Annual Tonnes of Waste

In 20/21, over 22,000 tonnes of waste was collected in kerbside landfill/rubbish, organics and recycling bins.



Diversion Rates

Diversion rates have increased from 31 to 74 percent since the introduction of the Green Food and Garden Organics bin.



Contamination

The most common contaminant (incorrect item) found in kerbside recycling bins is plastic bags.



Waste Education

In 20/21 there were 1602 community members engaged in waste education workshops.

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VISION

Our vision is to sustain and enhance our natural environment and resources for current and future generations. This includes working toward zero waste to landfill and net zero emissions for landfill by 2050 and a future where people take responsibility for their waste. It is important that we avoid, reduce, reuse and recycle waste and appreciate waste as a valuable resource.

Environment

We will sustain and enhance our natural environment and resources for current and future generations

Community

We will be a healthy, respectful and connected community

Place

We will be a place to live, belong and visit with infrastructure and development that enhances our lifestyle

Economy

We will have a thriving economy that harnesses our strengths and capitalises on opportunity

Leadership

We will have responsible, collaborative leadership that puts community wellbeing at the heart of decision-making



Figure 1: Council Plan Strategic Areas

EXECUTIVE SUMMARY

An integral part of the community vision is 'Environment' which encompasses waste management and resource recovery. Waste has significant social, economic and environmental impacts. It is important that it is managed well using a multi-pronged approach. The new Environment Protection Amendment Act 2017 implemented on 1 July 2021 includes a new approach to environment protection issues. It focuses on preventing waste with the foundation of the new legislation being the General Environmental Duty (GED). The GED requires anyone conducting an activity that poses risks to human health and the environment to understand and minimise those risks.

The *Waste and Resource Recovery Strategy 2022-2026* has been developed as part of Council's commitment to 'sustain our natural environment and resources for current and future generations' (Council Plan 2021-2025).

This strategy sets out Council's current and planned waste management and resource recovery actions. The strategy includes a shift in focus to more waste avoidance measures.

Five priority areas have been identified including:

- 1) Reduce waste generation**
- 2) Increase resource recovery**
- 3) Beneficial use of organics**
- 4) Waste and resource recovery education**
- 5) Sustainable waste and resource recovery infrastructure**

Littering and illegal dumping are a part of Council's *Litter and Illegal Dumping Strategy 2020-2025*, and are outside the scope of this strategy.

Our vision for this *Waste and Resource Recovery Strategy 2022-2026* is to have zero waste to landfill by 2050 and transition towards a future where people and businesses avoid generating waste and appreciate waste as a valuable resource. A shift to a circular economy will reduce the significant environmental impacts of waste and improve the amenity and liveability of the region. The natural environment is vitally important to our community.

In February 2020 Mildura Rural City Council declared a state of climate change emergency requiring urgent action by all levels of government. Climate change poses a significant threat to natural systems and human settlements and is already impacting our community through warmer temperatures, reduced but more intense rainfall and more severe droughts, dust storms, heat waves and bushfires. Climate change is also putting increasing pressure on our assets and services. Landfill emissions account for approximately 68 per cent of Council's emissions profile. Council is committed to reviewing our waste services and operations to mitigate the impacts of climate change.

TARGETS FOR SUCCESS:

- Zero waste to landfill by 2050
- Ongoing increase in waste diversion
- Net zero emissions for landfill by 2050
- Increase in mean average score of community satisfaction scores for waste and resource recovery by 2026



INTRODUCTION

Why a Waste and Resource Recovery Strategy is Needed

Mildura Rural City Council has a responsibility to provide effective and sustainable waste management services to our community. These essential services assist residents, visitors and businesses to responsibly dispose of the waste they produce, to increase waste diversion and improve the sustainability of our environment. Waste management is an important component of 'sustaining our natural environment and resources for current and future generations'. If not managed well waste can have significant environmental, social and economic impacts.

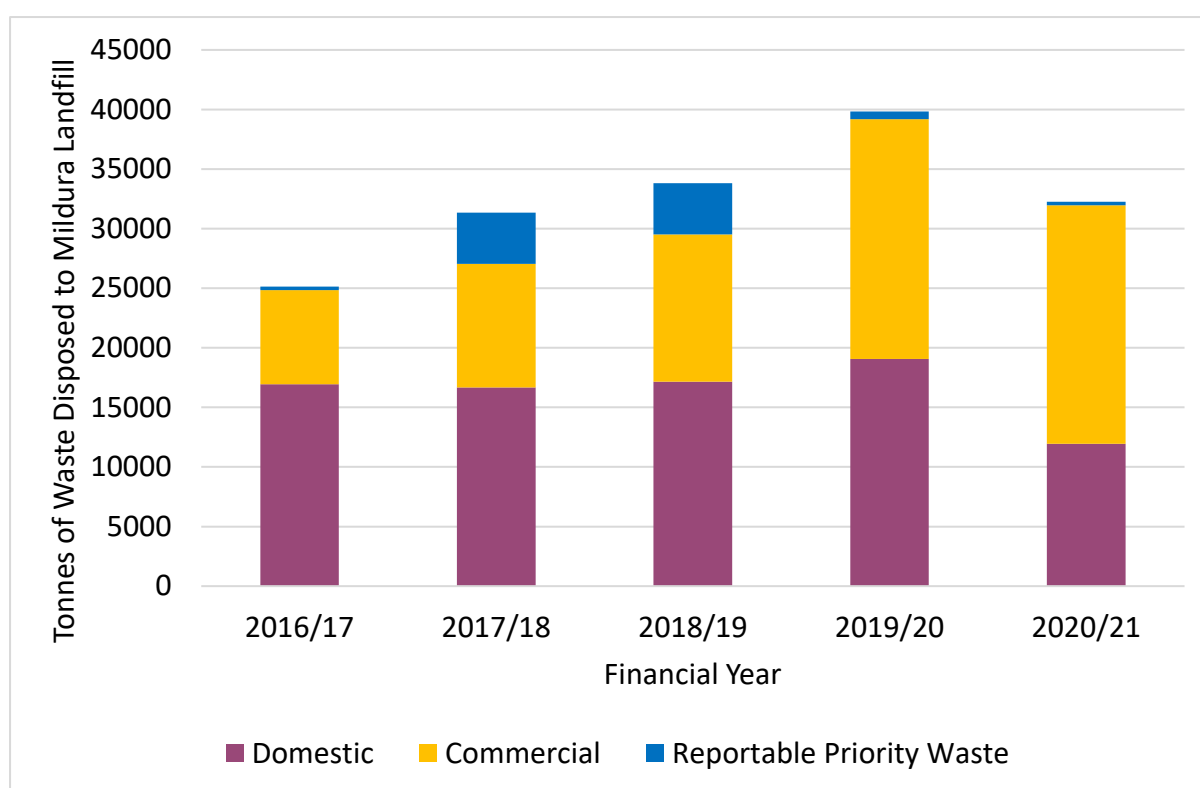


Figure 2: Tonnes of waste to Mildura Landfill for the last five financial years

In February 2020 Mildura Rural City Council declared a state of climate change emergency requiring urgent action by all levels of government. Waste in landfill is a significant contributor to greenhouse gas emissions, accounting for approximately 68 per cent of Council's emissions profile.

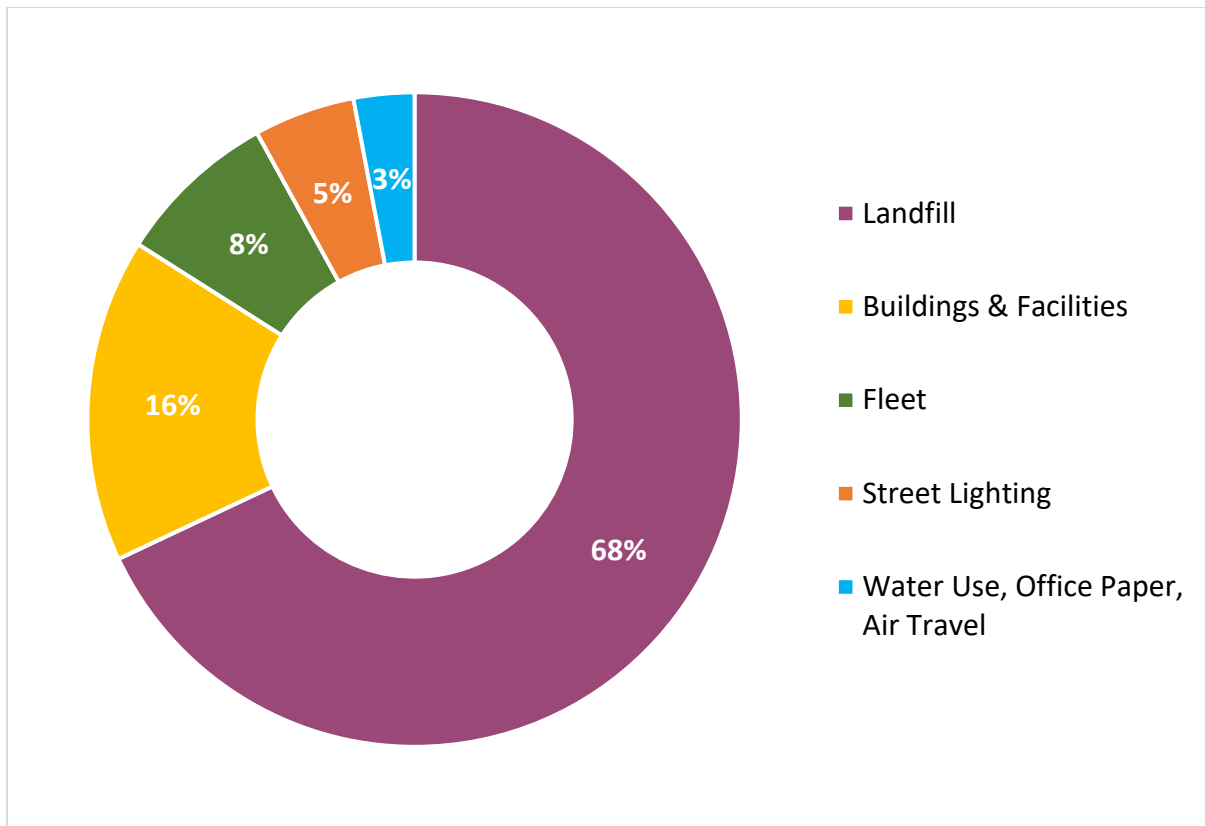


Figure 3: Greenhouse Gas Emissions Profile for Mildura Rural City Council

Waste sent to landfill takes numerous years to decompose and contributes to emissions from the landfill for many years after it is deposited. With continued forecasted growth in resident numbers, waste management will only continue to be a challenge for our community. Council is committed to reviewing our waste services and operations to mitigate the impacts of climate change.

Actions to reduce waste are becoming more apparent at the State Government level with the recent release of the *Recycling Victoria: A new economy* policy. Council's strategic direction for waste management is to engage, educate and support the community to responsibly and sustainably manage waste and to divert as much as possible from going to landfill. Council will provide the means for residents, businesses and visitors in our region to reduce the amount of waste going to landfill. Council recognises that waste management is a shared responsibility between government, industry and the community. The *Waste and Resource Recovery Strategy 2022-2026* has five priority areas including:

- 1) **Reduce waste generation**
- 2) **Increase resource recovery**
- 3) **Beneficial use of organics**
- 4) **Waste and resource recovery education**
- 5) **Sustainable waste and resource recovery infrastructure**

Purpose of the Strategy

The purpose of the *Waste and Resource Recovery Strategy 2022-2026* is to provide guidance and direction to council and to inform the community and stakeholders how Council intends to respond to current and emerging issues in waste and resource recovery.

Scope

Waste management and resource recovery is every person's responsibility including residents, businesses, land managers and visitors. Within Council every department has responsibilities for managing their waste and this can vary from ensuring waste goes into the right bin, through to managing complex projects that may produce a varied amount of waste.

Table 1 lists the waste services Council's waste management team provides that are within the scope of this strategy. Litter and illegal dumping are part of Council's *Litter and Illegal Dumping Strategy 2020-2025*, and are outside the scope of this strategy. Other related documents include the *Waste Education Plan 2022-2026*, *Environmental Education Plan 2020-2024*, *Towards Zero Emissions Strategy 2021-2050* and more.

Table 1: Waste management and resource recovery activities undertaken by Council

Focus	Activities
Prevention	Community engagement and education about waste management, resource recovery and waste minimisation
	Council policies and local laws
Management	Management of landfills and transfer stations providing access to all residents to be able to dispose of waste and recycling where possible
	Provision of kerbside services to residents and businesses
	Provision and servicing of street bins and public place recycling bins and bins available for event hire
	Undertaking routine and emergency street sweeping*
	Gross pollutant traps to catch litter and other pollution before it enters waterways*
	Investigation and enforcement of illegal dumping*
	Customer requests and data management
Clean up	Illegal dumping*, dead animal and syringe collection
	Litter clean up*
	Community clean ups e.g. Clean Up Australia Day*
	Enforcement activities*
Advocacy	Advocacy for Victoria wide programs to increase resource recovery and reduce litter and illegally dumped material, reduce packaging and product stewardship schemes

**Refer to Litter and Illegal Dumping Strategy 2020-2025 for more detail.*

What is Waste?

Waste is defined by the Environment Protection Act 2017 as *‘any matter whether solid, liquid, gaseous or radioactive which is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alternation in the environment.’*

In this strategy waste is broadly defined as materials or products that are unwanted or have been discarded, rejected or abandoned, including materials or products that are recycled, converted to energy, or disposed.

Under the Environment Protection Act, everyone has a responsibility to make sure their waste goes to the right place. We all need to take care when we are recycling or disposing of waste and dispose of it in the right way (EPA, 2020). Waste can cause pollution when it’s not disposed of in the right way.

Disposal of materials to landfill is the least preferred management option for waste. However, landfills will continue to be required to manage wastes that cannot practically be removed from the waste stream.



Why Waste is a Problem

Waste contains a wide range of materials, some of which break down and can, over time, leach into soil and groundwater and cause contamination. When waste is landfilled, it is generally compacted down and covered. As the waste breaks down in the landfill which is in an oxygen depleted environment, methane and carbon dioxide gases are produced and contribute to greenhouse gases in the atmosphere.

Waste in landfill accounts for approximately 68 per cent of Council’s emissions profile. Waste sent to landfill takes several years to decompose and contributes to emissions from the landfill for many years after it is deposited.

Many of the materials disposed of in landfill can last in the environment for hundreds to thousands of years. For example, a plastic bag can take up to 500 years to degrade in a landfill and never truly breaks down becoming a source of micro plastics that pollute the environment.

Waste also causes significant social and economic impacts. For example, the presence of waste in natural areas increases the likelihood of socially unacceptable behaviour and leads

to more illegal dumping. Inappropriately disposed items such as asbestos can cause hazards to human health.

In addition there are significant costs associated with the management of waste. There are state government levies which must be paid for every tonne of waste disposed in landfill. Mildura Rural City Council spends on average \$1.46 million per annum on state government waste levies alone. As the Victorian Government progressively increases the landfill levy the cost of waste disposal will continue to increase. By reducing the amount of waste we produce, reusing items and recycling items correctly we can reduce greenhouse gas emissions, save valuable landfill space, reduce harm to the environment and save on landfill levies.

Landfill accounts for 68% of Council's greenhouse gas emissions.

Recycling and composting waste instead of landfilling significantly reduces greenhouse gas emissions.

MILDURA RURAL CITY COUNCIL- PROFILE AND OVERVIEW

Knowing our population demographics and environment is key to understanding our current waste status and planning for waste management and resource recovery in the future. The Mildura Rural City Council municipality is located in the north west of Victoria and covers an area of 22,082 square kilometres, making it the largest local government area in the state. The Murray River runs along the northern border of the area.



55,937

2021 estimated resident
population

59,439

2031 estimated resident
population

Figure 4: Boundary map of the MRCC municipality



DEVELOPMENT OF THE WASTE AND RESOURCE RECOVERY STRATEGY

The *Waste and Resource Recovery Strategy 2022-2026* was developed with the input of Councillors, Council staff, key stakeholders and the residents and businesses of our community.

Community engagement for the Strategy was conducted in 2021. The engagement aimed to:

- Inform the community about the development of a new Waste and Resource Recovery Strategy
- Seek community feedback so the Strategy reflects the needs and aspirations of the community.
- Allow the community the opportunity to share their vision of what waste and resource recovery might look like in the future.

The following table outlines the data analysis, consultation and survey activities undertaken to create this strategy.



Table 2: Process for developing the Waste and Resource Recovery Strategy 2022-2026

Phase	Details
Community survey	<p>A Waste and Resource Recovery Strategy development survey was conducted in November 2021 to help inform the priorities and actions in this strategy.</p> <p>Yearly community satisfaction surveys.</p>
Data collection	Regular waste data collection and reporting.
Data analysis	In depth analysis of Council data as well as Victorian and regional waste data.
Internal consultation	Internal consultation with the project control group and other relevant Council departments.
External consultation	<p>Stakeholder consultation including a targeted workshop with waste and environment groups in the community including Plastic Free Sunraysia and Greening Mildura.</p> <p>Waste survey and results from community satisfaction surveys.</p>
Draft strategy	<p>Internal review by relevant Council departments.</p> <p>Approved by Council to go out for public comment.</p>
Final strategy	Approved by Council incorporating community feedback.
Implementation	Implementation of the <i>Waste and Resource Recovery Strategy 2022-2026</i> priorities and actions.
Monitoring and evaluation	<p>Monitor and evaluate the delivery of the <i>Waste and Resource Recovery Strategy 2022-2026</i> action plan.</p> <p>Reporting internally and to the community on progress.</p>

ENGAGING WITH OUR COMMUNITY

Community Satisfaction Survey Results

Council conducts yearly community satisfaction surveys about our operations and performance. Community members were asked about their levels of satisfaction with waste and resource recovery overall, kerbside rubbish collection, kerbside recycling collection and landfills and transfer stations. The below figure shows the mean performance score out of seven for the financial years ending 2016, 2017, 2018, 2019, 2020 and 2021.

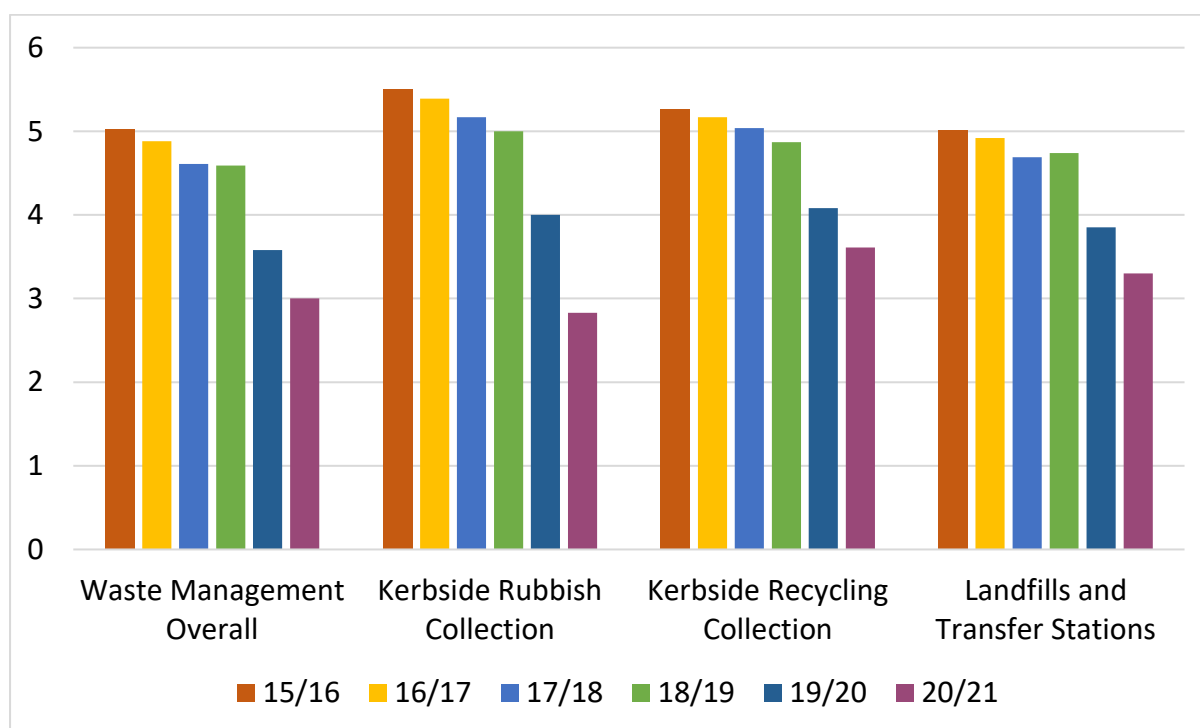


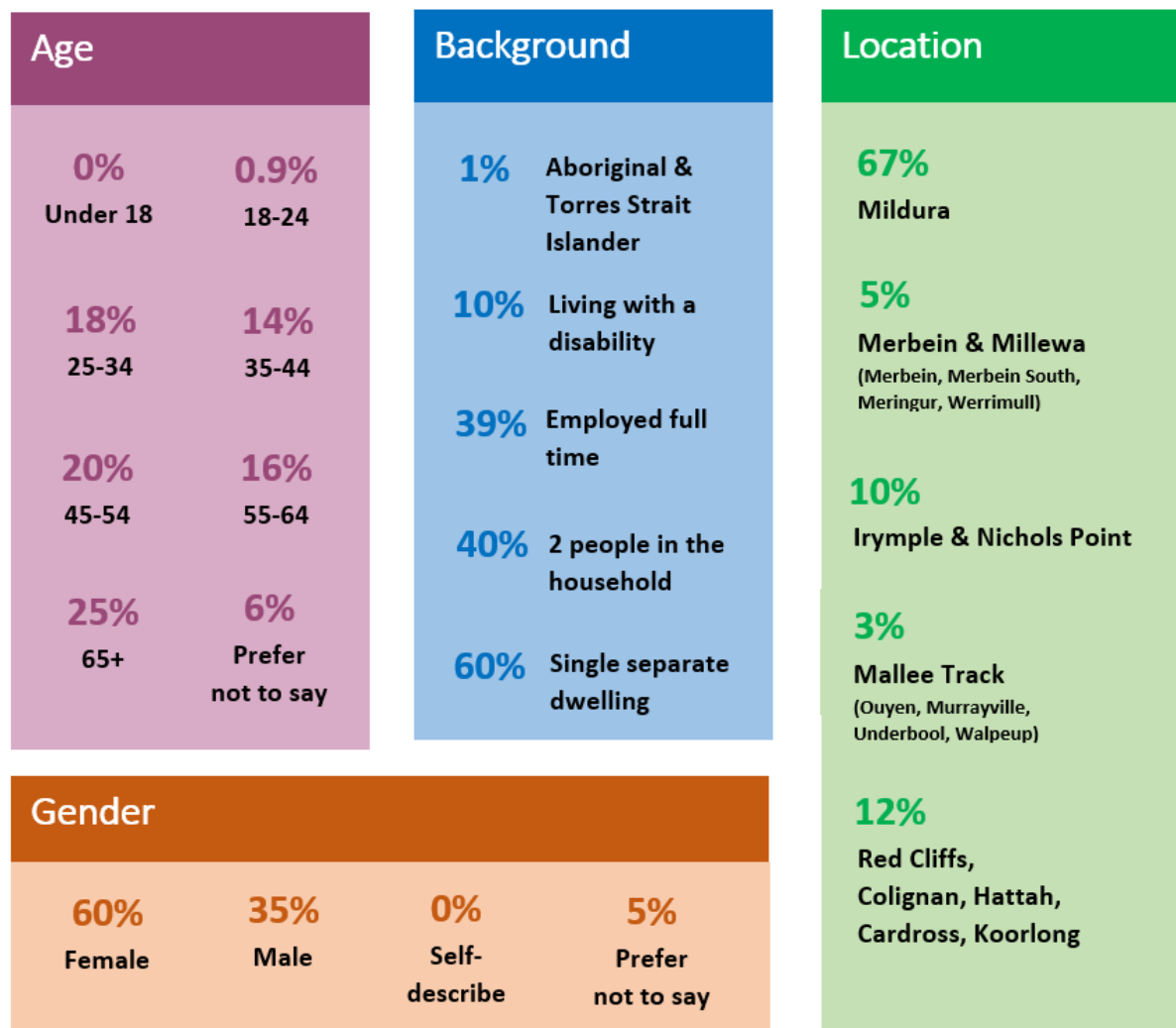
Figure 5: Community satisfaction with waste services including waste management overall, kerbside rubbish collection, kerbside recycling collection and landfills and transfer stations.

Community satisfaction with waste diverted from landfill and community satisfaction with environmental sustainability are important strategic indicators at Council. Reduced waste to landfill, increased waste diversion and an increase in the mean average score of community satisfaction scores for waste and resource recovery are included in the targets for success in this strategy.

Community Waste Strategy Survey

A 2021 community survey about people's attitudes and waste behaviours formed part of the development of the *Waste and Resource Recovery Strategy 2022-2026*. The survey was available online with hard copies available on request. There were 286 responses received.

The majority of responses were from residents (98 percent) however there were some businesses and schools that responded.



Overall community members were concerned about waste and its impacts on environmental, social and economic levels. The general sentiment was that reducing waste is important to do their bit for the environment (37 percent), for their children's/grandchildren's future (23 percent) and to reduce emissions (20 percent). However attitudes did not always line up with reported behaviours. Even if people have a high intention to reduce waste, this volition does often not translate into action. A clear example of this is that 70 percent of survey respondents knew that supermarket RedCycle soft plastics collection bins is an option to help divert soft plastics from landfill. However only 33 percent of respondents said they actually undertake the desired action.

There is a reported gap between holding environmental attitudes and values and actual performed environmental behaviour, termed as 'value-action' or 'attitude-behaviour' gap (Schanes et al. 2018). This is where it is useful to use waste audit results in combination with community surveys to observe this attitude-behaviour gap. The waste audit revealed that soft

plastics makes up an average of 33 percent of the volume of residential red landfill bins. With more people taking responsibility for reducing and sorting their waste, issues with overfilled bins will reduce. Concerns raised include effort to sort waste, limited space at home for bins, not enough space in landfill bins, smell, limited knowledge about where waste ends up and distrust in the recycling system. There are improvements to be made in people's knowledge and understanding and their behaviours around waste and recycling at home. There are also significant improvements to be made in business and school waste practices.

The majority of resident, business and school survey respondents were in favour of continued education sessions and workshops, social media posts, information on Council's website, media releases and newspaper articles and flyers and brochures. Suggestions for future actions have been included as part of this strategy.



FROM OUR COMMUNITY

“To not kill animals and make the earth a better place visually and functionally.”

“To ensure the future is safe for everyone.”

“Right thing to do.”

“Reducing landfill, rubbish dumping and littering in the community.”

“Working towards a circular economy.”

“Less rubbish is important to me, less consumption, more thought about what we buy or whether we need it in the first place. If there is less to start with then there is less to landfill or recycle.”

“I don’t like waste.”

“To ensure waste fits in bins as best as possible.”

“There’s only so much land and tips can be challenging to reuse at the end of their life.”

“No one wants a future world where we are living in our own refuse.”

“It is bigger than I am doing my bit. It should be we care for what we have been blessed with.”

Themes from Community Engagement

Shared responsibility and community goal of zero waste to landfill

A common theme in community member responses was the need to have a shared community goal to reduce waste to landfill. Waste is everyone’s responsibility.

Cost, care and convenience

Community members raised the need for accessible and convenient waste and recycling services and were concerned about increasing costs for waste disposal.

Reducing waste to landfill is important

Reducing waste to landfill is important to our community particularly to ‘do their bit for the environment’. This includes working higher up the waste hierarchy by avoiding and reducing waste in the first place.

Waste and recycling education

Community members want to learn about waste. For example, community members want to know the end use of materials collected through the kerbside recycling and food and garden organics bins.

POLICY FRAMEWORK AND STRATEGIC CONTEXT

As part of the development of the *Waste and Resource Recovery Strategy 2022-2026* national, state and Council policy were considered. The following section outlines those relevant to this strategy. Waste needs to be viewed as a part of a large complex system and include materials' entire life cycles from production to consumption to disposal. Two key principles underpin this plan:

- Waste hierarchy
- Circular economy

Waste Hierarchy

The waste management hierarchy is the underlying key principle of waste management and is included in the *Environment Protection Act 2018*. The highest priority is the avoidance and reduction of waste. This is followed by reuse and recycling. Recovering resources keeps materials in a circular economy and benefits the environment by reducing the need for new materials and waste absorption. The waste hierarchy recognises that some types of waste, such as hazardous chemicals or asbestos, cannot be recycled safely. Direct treatment or disposal is the most appropriate management option.

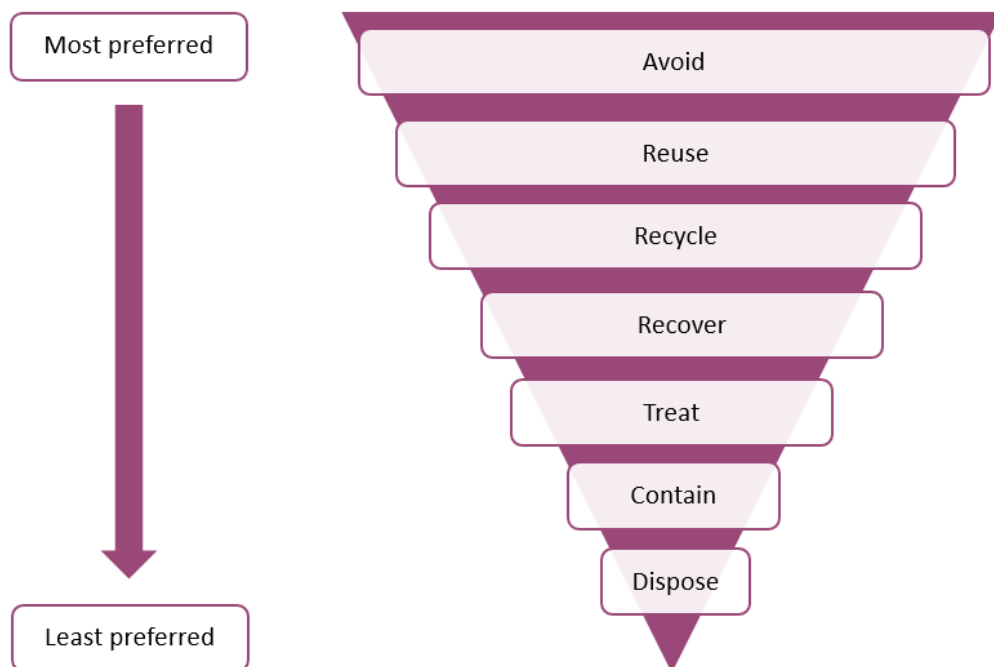


Figure 6: Waste Management Hierarchy

Circular Economy

A circular economy is a system aimed at reducing waste where resources are kept in a continually flowing loop. Consumption of raw materials is minimised and resources are kept in use as long as possible. Materials are only disposed of when they have no further use. A circular economy reduces consumption of finite natural resources and limits waste sent to landfill, thereby reducing environmental impacts.

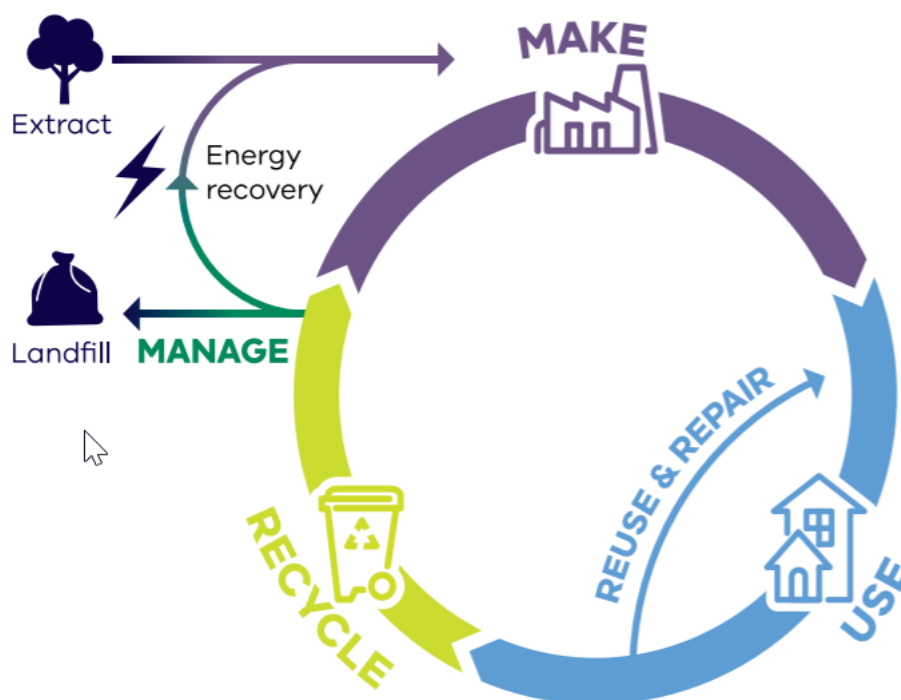


Figure 7: Resource Flows in a Circular Economy

Source: Recycling Victoria: A new economy, The State of Victoria Department of Environment, Land, Water and Planning, 2020.

Strategic and Policy Context- National, State, Regional and Council Levels

Mildura Rural City Council acts within a wider policy framework for waste management and resource recovery. These documents outline the mandatory requirements for the management, storage, transportation, processing, recovery and disposal of waste. A range of policies, plans and regulations at national, state and regional levels have been considered in the development of this strategy.

National

The *National Waste Policy 2018* provides a framework for collective Australia wide action on waste management, recycling and resource recovery. The Australian government are

responsible for actions including but not limited to: Banning exports of waste; ensuring product stewardship and improving consumer awareness through the Australasian Recycling Label.

State

The *Recycling Victoria: A new economy 2020* plan outlines the legislative and strategic waste and resource recovery framework. The move towards a circular economy is guided by four goals that cover the entire lifecycle of materials. Each goal is designed to minimise waste and environmental impacts by ensuring products are made to last, used to their full potential and managed well upon their disposal. The new Environment Protection Amendment Act implemented on 1 July 2021 includes a new approach to environment protection issues. It focuses on preventing waste with the foundation of the new EP legislation being the General Environmental Duty (GED). The GED requires anyone conducting an activity that poses risks to human health and the environment to understand and minimise those risks. Other legislative and strategic documents at the state level include the *Victorian Waste Education Strategy 2016* and *Local Government Act 2020*.

Regional

The *Loddon Mallee Waste and Resource Recovery Implementation Plan 2016-2026* applies Victoria wide priorities in the Loddon Mallee region. This plan sets out how waste and resource recovery infrastructure needs will be met. Strategic directions include: Community education to reduce waste generation per capita; enablement of beneficial use of organics; increased reuse and resource recovery rates and support of research into new waste management solutions and markets.

Council

This strategy is consistent with the overall vision and goals of the *Community Vision 2021-2040* and *Council Plan 2021-2025* to 'sustain and enhance our natural environment and resources for current and future generations'. The *Litter and Illegal Dumping Strategy 2020-2025*, *Environmental Education Plan 2020-2024* and *Towards Zero Emissions Strategy 2021-2050* also contribute to ensuring the community are aware of the importance of sustainable waste management.

An overview of the framework for Mildura Rural City Council within the Commonwealth, Victorian and regional context is provided below.

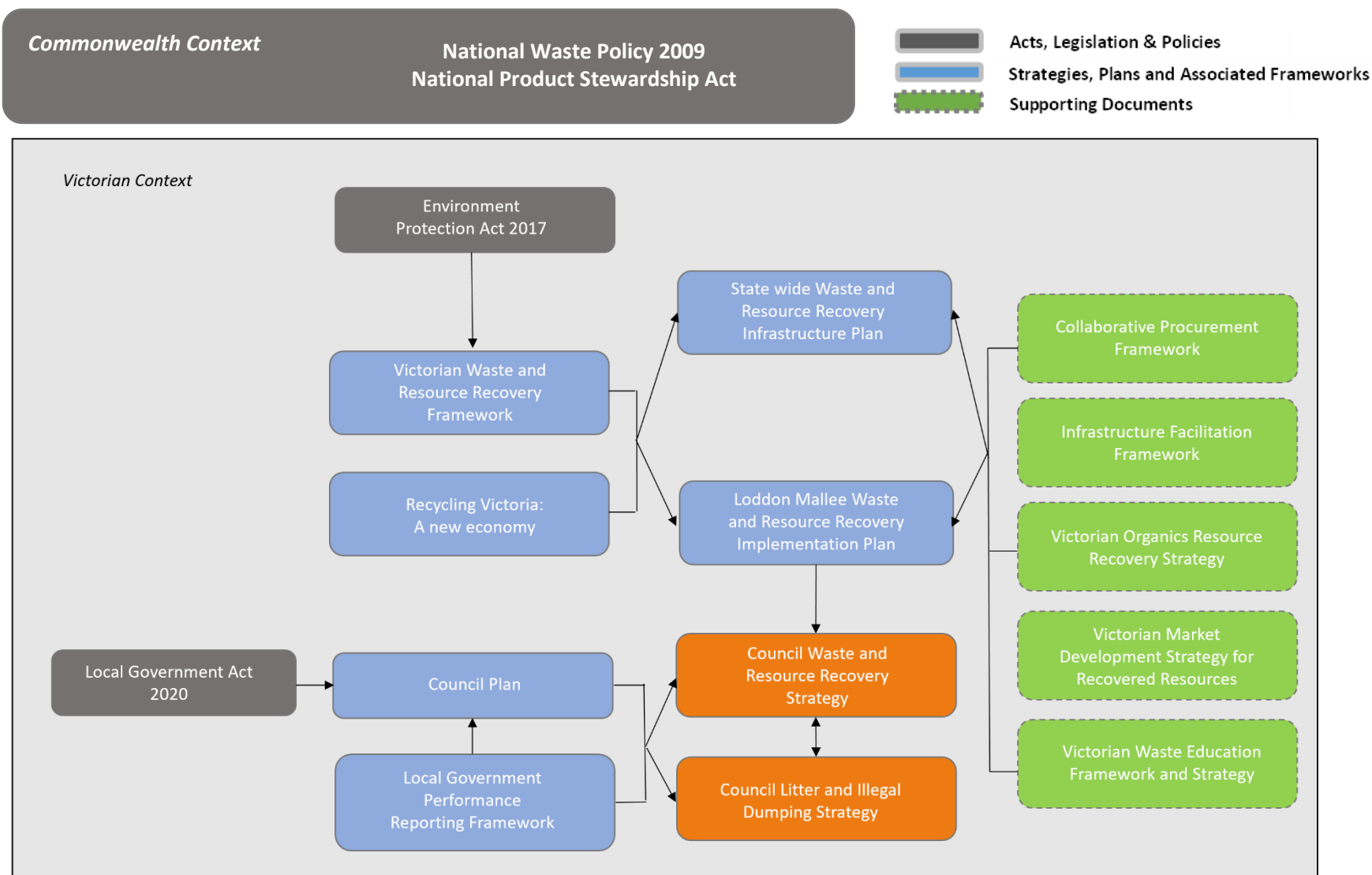


Figure 8: Framework for MRCC within the Commonwealth, Victorian and regional context



WASTE SERVICES & CURRENT WASTE STATUS

Council provides a wide range of waste management services to our community. These services assist residents, businesses and visitors to responsibly dispose of the waste they produce and to improve the sustainability of our environment.

The Waste Management Services that Council provides includes:



The provision of kerbside garbage, recycling and as of 6 July 2020 organics, to 26,059 households across the municipality



Management of landfills and transfer stations providing access to all residents to be able to dispose of waste and recycling where possible



Undertaking routine and emergency street sweeping



Servicing public litter bins and public space recycling bins and the provision of garbage and recycling bins for events



Collection of illegal dumping, dead animals and syringes



Community waste and resource recovery education and behaviour change programs

Provide kerbside services to 26,059 (and increasing) properties
Empty an average of 106,084 kerbside bins every fortnight
Over 107,345 visits yearly to Council's landfill and transfer station facilities

Council manages two operational landfills, two closed landfills and six transfer stations including:

- Mildura Landfill
- Cullulleraine Transfer Station
- Murrayville Transfer Station
- Nangiloc Transfer Station
- Ouyen Landfill & Transfer Station
- Underbool Transfer Station
- Walpeup Transfer Station
- Werrimull Transfer Station
- Koorlong Landfill (closed)
- Murrayville Landfill (closed and on same site as the transfer station)

Council also has three waste sites including:

- Lindsay Point Skip
- Mittyack Bin Corral
- Meringur Bin Corral

Council also has a number of bin banks along the Mallee Track at the smaller towns where kerbside services are not provided.

Mildura Landfill and Transfer Station

The Mildura Landfill is located at 15 Scherger Drive, Mildura. It is the largest of Council's waste facilities and operates seven days a week. Records indicate that the site was used for landfilling from the 1960's and is expected to close in 2040. Mildura Landfill is regulated by EPA Victoria through licence OP000019951.

Waste materials accepted at Mildura Landfill includes domestic waste, commercial waste, asbestos, cleanfill and contaminated C & D soil. Recycling accepted includes cardboard, glass jars and bottles, cans, paper, rigid plastic containers, polystyrene, steel, mattresses, e-waste, tyres, automotive oil, green waste, paint, CFCs, household batteries and drumMUSTER. Some

items accepted by the Mildura Landfill and transfer station have an associated disposal cost, while others can be disposed free of charge. Current disposal costs can be found on Council's website.

At the Mildura Landfill and transfer station is AroundAgain. AroundAgain accepts unwanted household goods for free. Items are resold to the community with proceeds going to the Christie Centre, a local not for profit organisation.

Council also works with organisations like Sustainability Victoria to hold waste disposal events. For example, Sustainability Victoria host an annual Detox your Home day at Mildura Landfill, where residents can dispose of household chemical waste free of charge.

In the Statewide Waste and Resource Recovery Infrastructure Plan Victoria, Mildura Landfill is a hub of state importance. This means Mildura Landfill and Transfer Station provide waste and resource recovery activities that are important at the state level. This is due to the limited alternatives due to the cost of transporting waste to other regional landfills in Victoria with the only viable alternative to transport was interstate. The site has encroachment issues from recreation and residential activities close to the landfill and to ensure long term functionality of the site relies on appropriately managing the potential impacts on the community.

Due to this, Council has established the Mildura Landfill Community Reference Group that meets once a quarter with stakeholders and resident representatives from the immediate area. It is intended to continue this group for the long term, to engage with them on activities occurring at Mildura Landfill and have two way communication to discuss any issues.

The potential environmental risks posed by a landfill site needs to be monitored and assessed. As per EPA regulatory requirements, Mildura Landfill undergoes regular monitoring, risk assessments, reporting and auditing. Even once Mildura landfill stops landfilling activities, it is a requirement that Council undertake ongoing aftercare until such time as the site does not pose a risk to human health or the environment, as determined by the Environment Protection Authority. Rehabilitation of the landfill is a requirement with progressive capping to begin for Mildura Landfill once the capping design is approved by EPA.

To also reduce our potential environmental impact from Mildura Landfill, we also need the community to recycle and divert as much waste from going to landfill as possible. This will be an ongoing education message. Council will also support the introduction of additional recycling initiatives where sustainable and provides waste diversion from landfill.

The following section offers a snapshot of waste sent to Mildura landfill and diverted via the transfer station.

Figure 9 shows the tonnes of waste disposed to Mildura Landfill including domestic, commercial and reportable priority waste. Reportable property waste includes asbestos and contaminated soil. These figures include waste collected via the kerbside landfill bins.

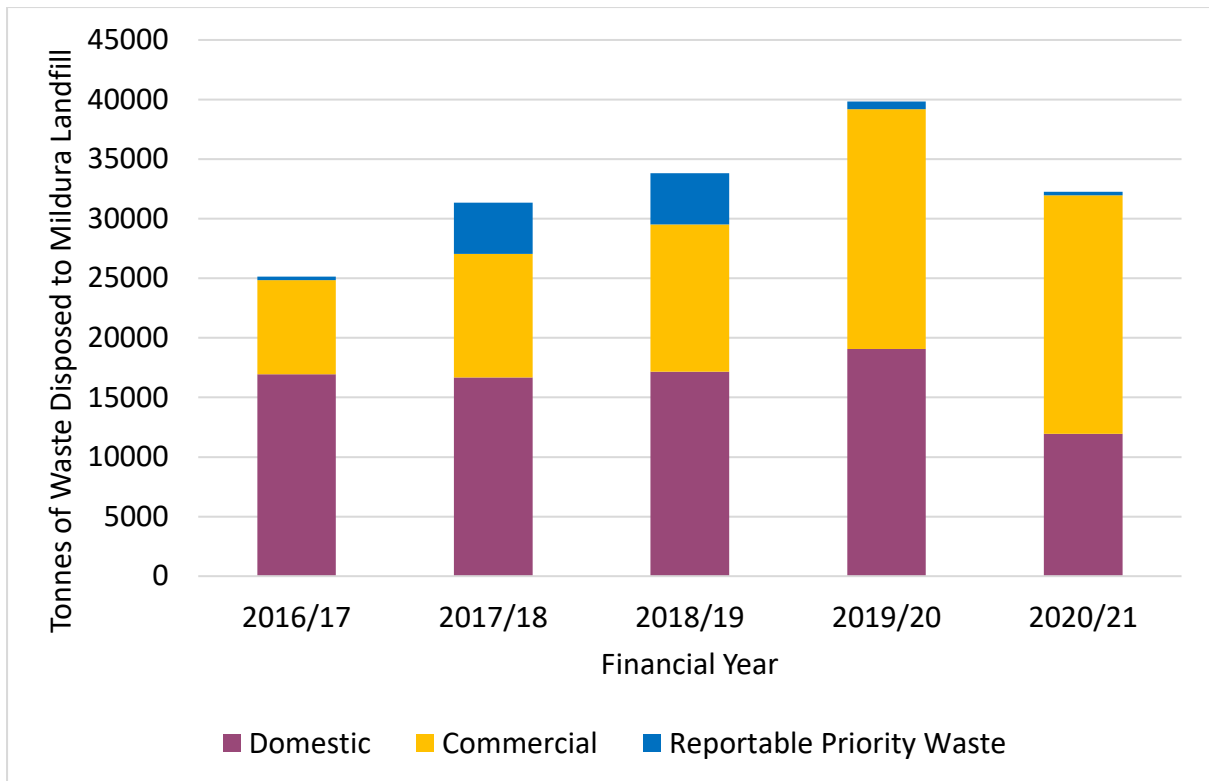


Figure 9: Tonnes of Waste Disposed to Mildura Landfill including Domestic, Commercial and Reportable Priority Waste.



Rural Transfer Stations and Landfills

Council has a number of transfer stations, waste sites and bin banks in our rural areas of the municipality. We also have one operating landfill (Ouyen) and two closed landfills (Koorlong and Murrayville). These sites are now regulated under permit or registration permissions from EPA Victoria.

Our transfer stations have a number of options for local residents to recycle along with disposing of waste. This includes rubbish, cardboard, glass jars and bottles, cans, paper, rigid plastic containers, polystyrene, steel, e-waste, tyres, automotive oil, green waste and drumMUSTER.

Recycling and waste is transported to alternative locations for processing or disposal. Greenwaste is mulched onsite except at Nangiloc. Waste is either disposed of at Ouyen or Mildura Landfills.

In 2018 a review of the transfer stations was undertaken by Blue Environment. The Rural Waste Facilities Review looked at ways to improve operations, save money, increase the amount of material diverted from landfill and improve community access and satisfaction with the transfer stations (Blue Environment, 2018).

A traffic survey was undertaken over two months that showed low levels of patronage during a number of opening hours at most transfer stations, with declining use the longer the facility was open. This was off-set by higher rates of use on Sundays at all transfer stations (Blue Environment, 2018).

A community survey was also undertaken that showed the waste facilities were generally valued by their users, with moderate to high levels of satisfaction with the facilities across the community (Blue Environment, 2018).

Council also has a number of bin banks along the Mallee Track at the smaller towns where kerbside services are not provided. Unlike kerbside bins, the residents using these bin banks are not paying a waste charge on rates to pay for these services. There are also currently issues on if these bin banks are meeting the needs of these local communities. A review of these needs to be undertaken, along with Lindsay Point skip and the two bin corrals at Mittyack and Meringur to sustainably provide waste services, that encourage recycling, that meets the EP Act and are also financially viable.

Council acknowledges that even with low customer numbers and increased costs of servicing our rural sites, waste and recycling options need to be available to those communities. Further work needs to be conducted on what is going to be the best options for our rural communities, ensuring that the costs of providing the waste services are fair across the municipality and cost savings are made where possible. This may need to include rationalisation of sites, review of operating hours and review of waste acceptance types dependent on the needs of the local community.

Upgrades of the transfer stations and sites are also required to improve operations, increase resource recovery and improve community satisfaction with the sites.



Kerbside Collection Services

Council offers a three bin kerbside system to residential and commercial properties, including a 120 litre red lidded landfill bin, 240 litre yellow lidded recycling bin and 240 litre green lidded food and garden organics bin. The landfill bin and recycling bins are collected on alternating fortnights and the food and garden organics bins are collected weekly.

The food and garden organics bin was introduced in July of 2020. Waste to landfill reduced by 50 percent from 12002 tonnes in 2019/20 to 5987 tonnes in 2020/21. Council's diversion rate dramatically increased from 30 percent to 74 percent.

The following section offers a snapshot of waste collected through the kerbside system. Please note that we estimate that 11% of the kerbside collections are from commercial sources. This estimate is based on tenement data.

Figures 10 and 11 show the tonnes of waste collected through the kerbside system and the diversion rate. Percentage diversion rate for the kerbside system is calculated by dividing the total amounts of recycling and organics collected by the total amount of waste in the kerbside system. The aim is to divert as much waste as possible from landfill and minimise impacts on the environment.

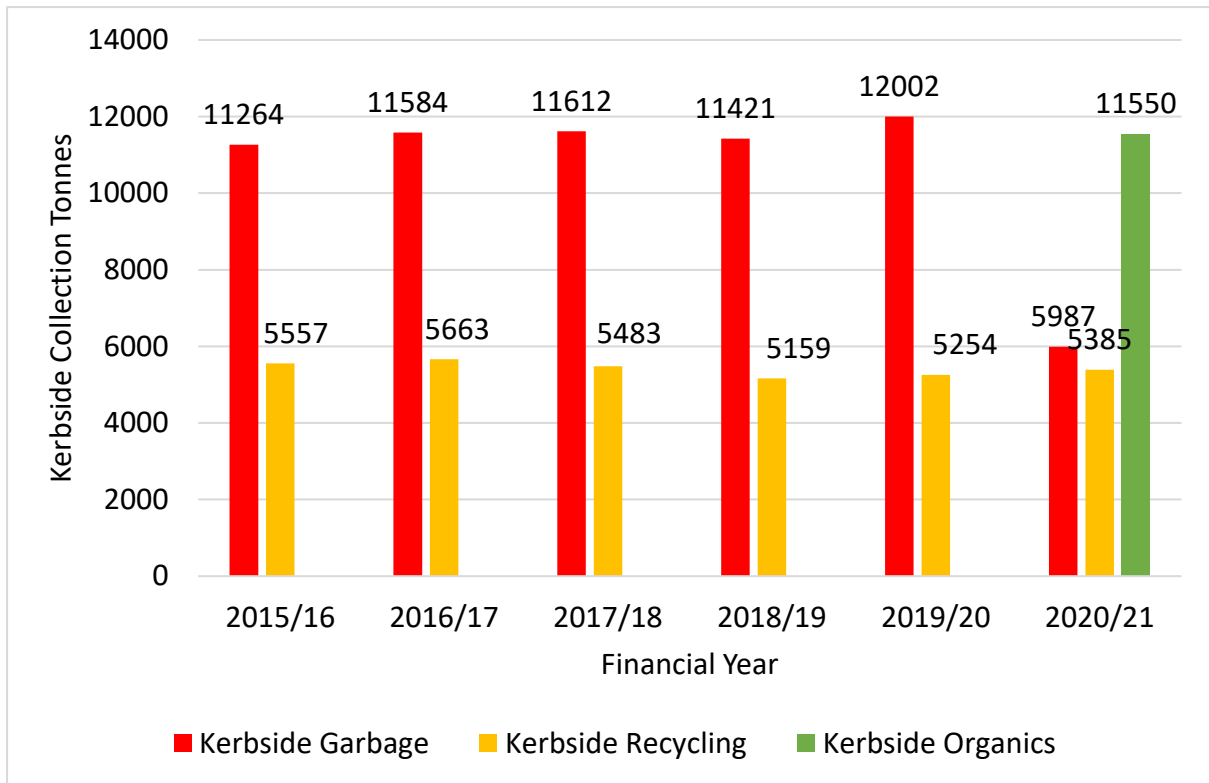


Figure 10: Garbage, Recycling & Organics Collected via the Kerbside System

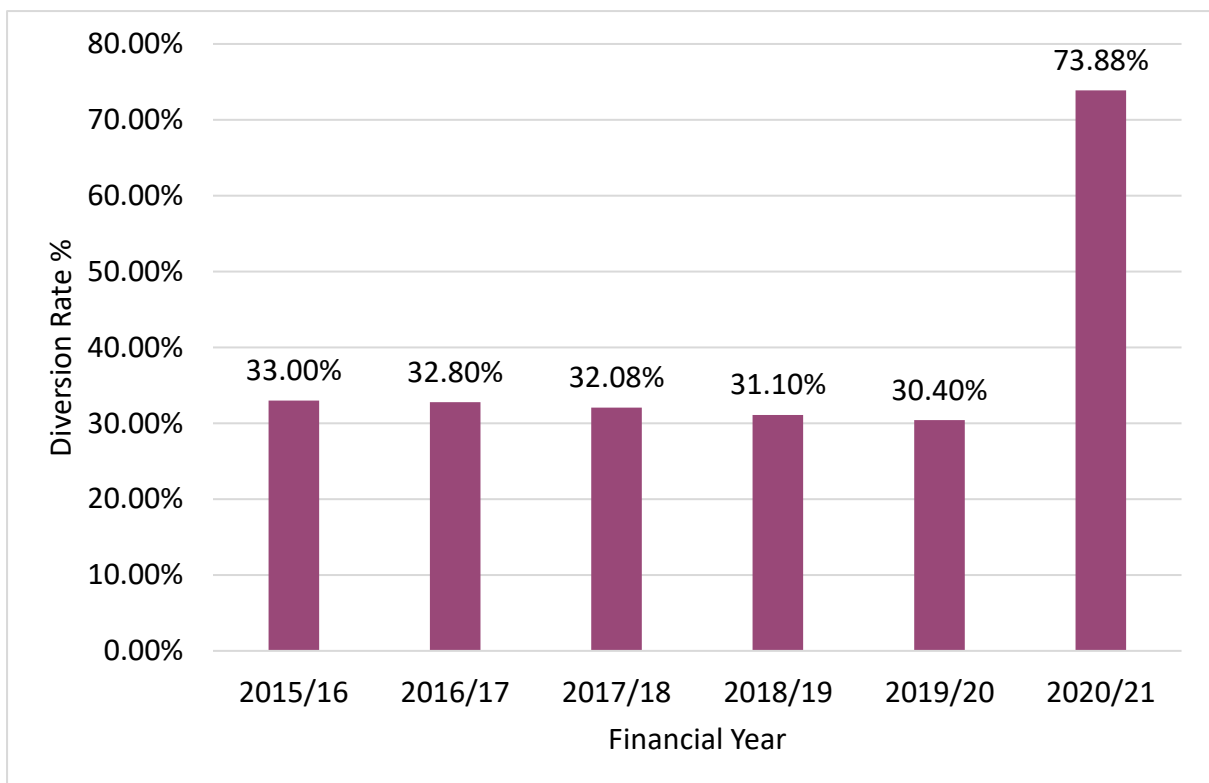


Figure 11: Percentage Diversion Rate via the Kerbside System from 2015 to 2021

Audits of household kerbside landfill, recycling and green bins are conducted regularly to allow for detailed information on average amount of waste generated by each household, waste composition and contamination between bins. The most recent audit were conducted in November 2019 (prior to the introduction of the green bin) and May 2021 (post introduction of the green bin). Waste data including the kerbside bin waste audits demonstrates a noticeable shift in our community's waste disposal behaviours. However, behaviour change is not a quick process, and there are still several improvements to be made.

The 2019 audit showed that an average of 53 percent of the landfill bin contained food and garden organics, 34 percent rubbish and 13 percent recycling. With the introduction of the food and garden organics bin there was significant opportunity to increase our diversion rates. The 2021 audit showed that an average 38 percent of the landfill bin contained food and garden organics, 43 percent rubbish and 19 percent recycling.

Diversion rates increased from 30 to 74 percent with the introduction of the food and garden organics green bin service



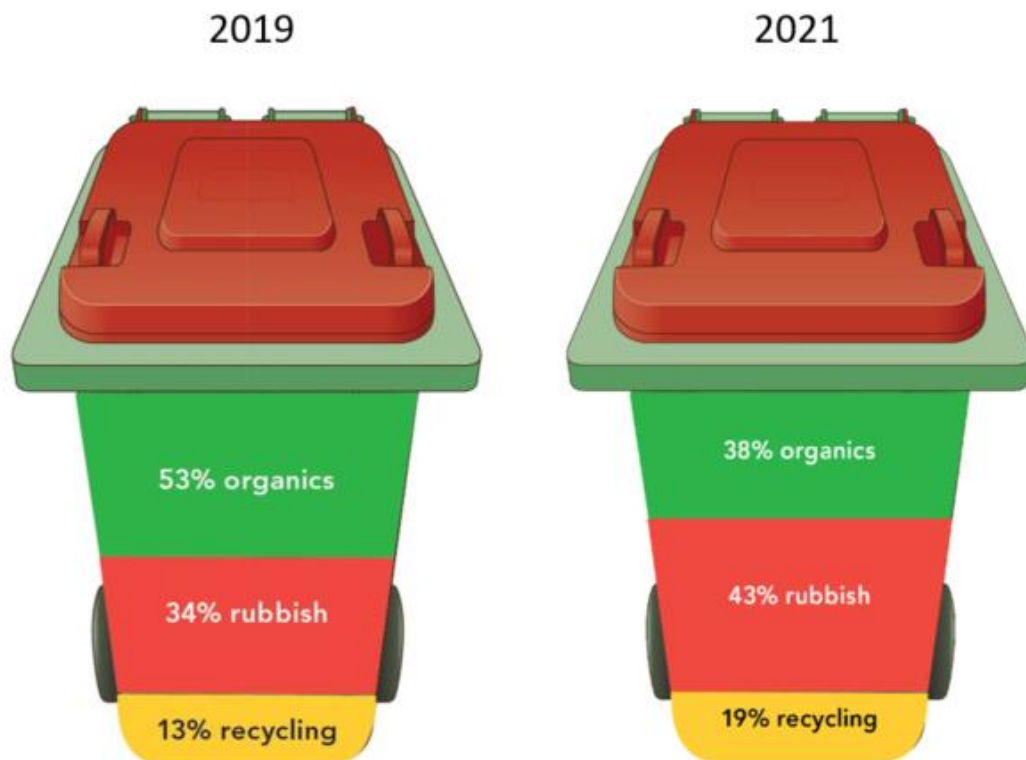


Figure 12: Percentage composition of landfill bins in 2019 and 2021

Contamination data is useful to help gauge the progress and effectiveness of waste and resource recovery programs across years and to identify opportunities for improvement. The contamination rates for each of the three bins is included below. Sources of contamination for the green kerbside bins includes cardboard, soil/dirt/rock, soft plastics, bagged waste and textiles. Contamination sources in the commingled recycling bin includes bagged recyclables, soft plastic, bagged waste, paper towel and tissues and soiled pizza boxes. Contamination sources in the landfill/rubbish bins includes food scraps, garden organics, paper and newsprint and bottles and jars. Education about contamination will continue throughout the life of our services.

Table 3: Composition and contamination in the kerbside bins from the 2021 waste audit

	Landfill/Rubbish Bins	Organics Bins	Commingled Recycling Bins
Landfill waste	43%	4%	8%
Organic waste	38%	93%	2%
Commingled recyclables	19%	3%	90%
Contamination Rate	57%	7%	10%

An average of 742kg per household is placed in the landfill bin per year. 422kg (57%) of this is material that does not need to go to landfill and can be recycled or composted instead



Community Waste Education and Engagement

Council's priorities and outcomes include increasing environmental awareness and education about waste management and increased community knowledge, skills and action to live sustainably.

Engaging with and educating the Mildura community on waste avoidance and appropriate disposal of waste and recycling directly impacts on the success and efficiency of waste infrastructure. In order to reduce the amount of material sent to landfill, education around the services we provide, and what can and cannot go into each bin, is very important.

The main focus for waste education has been on the food and garden organics bin. Future focuses include waste avoidance and reducing contamination

1582 people were engaged in waste education workshops in 2020/21



PRIORITY AREAS

The Council will continue to work with the community to 'sustain and enhance our natural environment and resources for current and future generations'. This *Waste and Resource Recovery Strategy 2022-2026* identifies the following five priority areas:

1. Reduce waste generation

2. Increase resource recovery

3. Beneficial use of organics

4. Waste and resource recovery education

5. Sustainable waste and resource recovery infrastructure





PRIORITY 1: REDUCE WASTE GENERATION

Focus: To have a well-informed community that chooses to create less waste

The highest priority of the waste hierarchy encourages the reduction of waste generation. Council needs to assist community members and businesses to make informed and positive decisions on minimising or avoiding waste generation where possible. This includes behaviours such as selecting items with the least packaging and avoiding the use of disposable goods or single use materials. Items such as single use plastics cause significant environmental harm and are often difficult and economically unviable to recycle.

Reducing waste generation will be actioned through a combination of community education and advocacy. Education results in enhanced consumer awareness and is a powerful tool for achieving long term behaviour change. The community will be educated on waste reduction methods and reusable alternatives such as beeswax wraps, reusable coffee cups and cloth nappies will be promoted. Council is committed to develop and implement waste avoidance education programs for residents aimed at reducing the volume of waste generated and disposed of in kerbside bins.

Reduced waste generation will be further supported through advocacy for less packaging. Product packaging generates tonnes of waste. Waste can be dramatically reduced at the beginning of the producer to consumer chain.

Council is committed to increasing participation in waste minimisation activities by supporting community lead waste reduction activities.

Waste reduction methods will be explored and implemented internally by Council and results shared with the community to encourage the move towards environmentally sustainable alternatives.

Reusable nappies and sanitary products education

Limited edition, locally themed reusable cloth nappies provided to residents who attend an education session where they learn about the advantages and disadvantages of different reusable cloth nappy styles, how to set up their nappy changing area, and the quick and clean washing regime for cloth nappies.

Packaging- Shop Smarter

Council will provide information on how you can shop smarter to reduce the amount of packaging you bring home while out shopping. Although in some instances we have to buy with packaging, there are other options to select to reduce what you bring home.

Australian Packaging Covenant Organisation (APCO)

APCO and its network of partners are working to transform the way packaging is managed in Australia. Their vision is a packaging value chain that collaborates to keep packaging materials out of landfill and retains the maximum value of the materials, energy and labour within the local economy. Achieving this vision will require fundamental changes to the way packaging is manufactured, used, collected and reprocessed into new packaging or products. Although this is something Council and residents don't have a lot of influence to make significant changes, we can advocate and choose to purchase with less packaging, use the Australasian Recycling Label Program to identify where each type of packaging can be disposed, with the intent to recycle as much as possible.

Single Use Plastics Policy

Single Use Plastics (SUPs) such as single-use straws, cutlery, plates, drink stirrers, expanded polystyrene food and drink containers and cotton bud sticks will be banned from sale or supply in Victoria by February 2023. Council will develop a Single Use Plastics Policy regarding the purchase, supply, distribution and use of single use plastics. This policy will apply to operational activities of the Council and to civic, community and commercial events taking place in Council owned and operated facilities or on Council managed lands. This policy will also apply to Council funded events and activities.

Council will promote alternatives to the community, develop programs and initiatives that support local businesses, community groups and events to reduce single use plastic use, work with community based groups to promote single use plastic free behaviours to the broader community and continue to support households to avoid and reduce waste at home via free workshops.

Waste minimisation for businesses and events

Council will engage local businesses to support uptake of opportunities for avoidance of waste and increased recycling. This includes encouraging and supporting, where appropriate, local businesses in undertaking waste audits, as an ongoing activity, to identify waste diversion/reduction opportunities and continuous improvement. Information on waste wise events will also be developed to assist those running events to manage their waste to minimise and recycle as much as possible.

Council will commit to developing a waste management plan that will identify how as an organisation we will reduce waste and recycle as much as possible. Being a large multi-faceted organisation, there are many complexities on what waste is disposed of across the organisation.

PRIORITY 1 – WHAT WE WILL DO

- ✓ Education on cloth nappies and reusable sanitary products
- ✓ Develop and implement Council's Single use plastics policy
- ✓ Show leadership and innovation by developing a waste management plan for Council that identifies how Council will increase waste diversion and reduce waste across the organisation
- ✓ Develop programs and initiatives that support local businesses, community groups and events to reduce single-use plastic items
- ✓ Work with community based groups to promote single-use plastic free behaviours to the broader community
- ✓ Continue to support households to avoid and reduce waste at home via free workshops on a wide range of topics including shopping smarter to avoid, reduce, reuse and recycle waste



PRIORITY 2: INCREASE RESOURCE RECOVERY

Focus: Continue to identify and implement resource recovery options to increase our waste diversion levels now and into the future

Resource recovery extracts the maximum benefits from materials, delays the consumption of virgin materials and reduces the amount of waste sent to landfill. Council currently diverts materials like commingled recyclables, cardboard, polystyrene, steel, whitegoods, fluorescent lights, batteries, mattresses, e-waste and drums at its landfills and transfer stations. Significant reductions in waste sent to landfill were achieved with the introduction of the food and garden organics bin in July 2020.

Population growth means waste is expected to increase. We need to continue to explore opportunities to support resource recovery to divert more materials away from landfill as this maximises the value of materials, supports the resource recovery economy and reduces our impact on the environment.

Opportunities to improve resource recovery will continually be investigated by Council. State mandated future directions include a new glass bin or access to glass services by 2027, introduction of a container deposit scheme and funding opportunities to increase capacity of processing recyclable materials.

Separate Glass Collection Services

Separate glass collection is being mandated by the Victorian Government under the *Recycling Victoria* policy. Glass creates problems when mixed in with other recyclables because it often

breaks and becomes embedded in plastics and paper, making them harder to recycle and reducing their value. Council will need to decide on the most appropriate option for recovery of glass to meet the community's needs and ensure compliance with state regulations. This new service will be developed and introduced by 1 July 2024.

Expanded Recycling at Waste Facilities

Council will investigate increased recycling options at Mildura landfill and transfer stations, including rural sites. Materials where increased resource recovery options should be explored include soft plastics and textiles.

Soft plastics such as plastic bags cannot be recycled via the kerbside commingled bin but can be recycled via other means such as supermarket RedCycle programs. Council will investigate the feasibility of introducing domestic soft plastics recycling collections at its transfer stations.

Textiles similarly cannot be recycled via the kerbside recycling bin and is found as a common contaminate in the kerbside recycling bin. The Australian Bureau of Statistics found that approximately 800,000 tonnes of textile, leather and rubber waste was discarded in the 2018/19 financial year in Australia. Council will trial a textiles recycling program at Mildura Landfill and transfer station.

Council where possible will also support the introduction of product stewardship schemes. Product stewardship schemes help share the cost of managing the end of life of a product among industry, government and the consumers. Examples of current product stewardship schemes include drumMUSTER and MobileMuster. This may see Council use accredited recyclers to process certain recyclable items and then obtain a rebate for recycling that material.

Household Goods Recycling

Household goods includes but is not limited to items such as fridges, washing machines and furniture. Council does not offer a hard waste collection service but encourages community members to use AroundAgain, online pages and garage sales to dispose of their hard waste.

Council will aim to set up a second hand retail service similar to AroundAgain at Ouyen Landfill. This will assist community members who live in Ouyen and surrounding areas to dispose of their household goods waste to be reused.

New Recycling Opportunities and Technologies

New recycling opportunities and recycling technologies are developed allowing for waste to be used as a resource rather than being disposed of in landfill. Council will continue to explore these options and implement viable alternatives in order to increase our resource recovery and contribute to a circular economy.

Recycling Education

The 2021 waste audit revealed the average contamination rate of kerbside commingled recycling bins is 10 percent. Whilst this is lower than previous years there is still significant room for improvement. There are also items such as going into the red landfill bin that can be

recycled instead. Recycling education will focus on the major contaminants and raise community awareness of what can and cannot be recycled in order to improve recovery rates. This includes increasing community awareness about what waste can be accepted at transfer stations or alternative recycling options such as supermarket RedCycle soft plastics collection bins. Education will be paired with enforcement activities such as bin inspection programs and contaminated bin letters. Information on what can be recycled at transfer stations will also be promoted as some people are not aware of the recycling options at the transfer stations.

Schools

Council will engage local schools to support uptake of opportunities for avoidance of waste and increased recycling. This includes provision of free workshops to educate children and school staff about waste avoidance, recycling and more. Council will also encourage and support, where appropriate, local schools in undertaking waste audits, to identify waste diversion/reduction opportunities and continuous improvement. Council will provide support in how to set up improved recycling systems to maximise resource recovery.

Increasing Waste Diversion in the Commercial, Construction and Demolition Industry

Waste from businesses and the construction and demolition industry is now the most waste received at Mildura Landfill. That means this is the area where we have the greatest potential to divert waste from landfill. Council will investigate options to increase waste diversion in this industry and aim to implement the actions by the end of the life of this Strategy. Council will also provide education and engagement programs on waste avoidance and recycling to staff members of local businesses. This includes support and guidance on setting up improved waste management systems to help businesses to improve recycling outcomes. Council will also engage with the construction and demolition industry to encourage improved recycling and sorting rather than disposal into skips which end up in landfill. The method to engage with this industry will be investigated and then implemented.

Council will also develop and implement a resource recovery grants program for businesses and schools. The aim will be to divert waste from going to landfill or waste minimisation activities.

Working in Collaboration with other Councils

The Mildura Landfill has a limited airspace with Council ceasing landfilling by 2040 and Council will need to source another option to send waste going to landfill. Work undertaken by Blue Environment in 2020 *Operational and Financial Assessment of Mildura Landfill for Future Closure* identifies Buronga Landfill in Wentworth Shire Council as the closest and least-cost alternative option. Council is open to working in collaboration with other Council's such as Wentworth Shire Council to provide waste and recycling services for our region. As there is cross border flows of waste and recycling between the States, and to other regions in Victoria, we are open to working with other Council's on achieving resource recovery goals.

PRIORITY 2 – WHAT WE WILL DO

- ✓ Develop and introduce a glass recycling service
- ✓ Explore innovative approaches to waste reuse, collection, storage and recovery
- ✓ Encourage community driven recycling initiatives
- ✓ Improve and expand community recycling practices through education and promotion
- ✓ Standardise kerbside bin lid colours in line with Recycling Victoria policy
- ✓ Promote the uptake and availability of product stewardship and non-profit recycling programs such as RedCycle
- ✓ Investigate increased recycling options at all transfer stations on an ongoing basis or as opportunities arise
- ✓ Trial a textiles recycling collection point at Mildura landfill
- ✓ Trial a soft plastics recycling program at Council facilities
- ✓ Establish a second hand household goods reuse site at Ouyen Landfill
- ✓ Investigate and implement options to increase waste diversion from the commercial, construction and demolition industry
- ✓ Engage and work with schools and businesses to improve waste systems to increase waste diversion from landfill
- ✓ Investigate ways to engage and encourage the construction and demolition industry in Mildura to recycle as much as possible
- ✓ Work in collaboration with other Council's to achieve resource recovery goals
- ✓ Deliver the Resource Recovery Grants program to businesses and schools



PRIORITY 3: BENEFICIAL USE OF ORGANICS

Focus: Continue to ensure beneficial use of organics now and into the future

Divert Organics from Landfill

Council moved towards beneficial use of organics through the introduction of the food and garden organics or green bin service in July 2020. Audits conducted by Council in November 2019 showed that food and garden organics made up more than half of the average red landfill bin.

Garden organics dropped significantly from 21.5% of the red landfill bin in 2019 to 5% in 2021. Amounts of food organics going into the red landfill bin did not change significantly.

It is important to keep organic material out of landfill. In a landfill environment, food and garden organics produce leachate which can pollute groundwater and waterways. Organics also produce methane, a greenhouse gas that is 25 times more potent than carbon dioxide (CO₂). Increasing the recycling and recovery of organic waste will help reduce greenhouse gas emissions from the waste sector and protect our groundwater and waterways. Through use of the green bin we can cut the amount of waste sent to landfill, leading to significant positive environmental and economic impacts.

The State Government's *Recycling Victoria: A new economy* policy has established a mandatory rollout of food and garden organics recovery services to households, with 100 percent of households having access to a bin or service by 2030. By introducing the food and

garden organics kerbside collection service in July 2020 we are well on our way to ensuring compliance with the state regulations. Council will continue to encourage increased organic waste diversion from landfill through education and behaviour change campaigns.

Reduce Food Waste

Research conducted by Sustainability Victoria found that the average household in Victoria throws away \$2136 a year in wasted food, almost two thirds of the food Victorian households throw away could have been eaten and only 43 percent of Victorians shop with a list, with 46 percent admitting they buy food they do not need (Sustainability Victoria, 2021). When we waste food we not only waste the food itself but also the resources used to grow our food such as water, soils and energy and all the energy used to process, package and transport food. By writing a shopping list, buying only what we need and storing food correctly to keep it fresher for longer we can avoid food waste.

Council is committed to increasing community knowledge, skills and action to live sustainably. This includes promoting less food waste at home and businesses through education and communication programs.

Home Compost, Bokashi Bins and Worm Farms

Whilst the kerbside food and garden organics bins provide an essential service to dispose of food and garden waste in a sustainable manner they are not the only option. Home compost bins, bokashi bins and worm farms are a good option for our food and garden waste. There are differences between these three methods (Environment Victoria, 2010).

Compost bins use the natural process of decomposition to convert organic waste matter into a nutrient rich soil. By composting you can reduce landfill, conserve resources and minimise greenhouse gases (Sustainability Victoria, 2021). Where composting allows organic matter to break down and decay through decomposition, bokashi bins are a Japanese system that pickles or ferments scraps to bring it to a pre-compost state. Worm farms make use of worms to consume and compact waste into a nutrient-rich vermicast/fertiliser for the garden.

Council will provide education on how to compost, use worm farms or Bokashi bins at home.



Business Food Waste Management

Around 239,580 tonnes of food waste is generated each year by the food retail and hospitality sector. Businesses can play an important role in reducing food waste sent to landfill, particularly supermarkets, hotels, cafes, restaurants and food courts (Metropolitan Waste and Resource Recovery Group, 2021).

Sustainable food waste management looks at strategies to reduce food waste where it occurs, before it occurs. Examples of sustainable food waste management includes optimising food inventory control and use of food donation programs that allow businesses to donate surplus stock. Food donation initiatives contribute to those in need as well as reducing food waste that would otherwise end up in landfill.

Council will assist businesses and organisations to avoid and reduce food waste by providing education on how to reduce waste, advice on how to make their waste recoverable through existing systems and by facilitating connections between businesses, organisations and households that allow one business' or organisation's waste to be another's useful resource.

PRIORITY 3 – WHAT WE WILL DO

- ✓ Continue to increase organic waste diversion from landfill through kerbside services
- ✓ Promote less food waste at home and businesses through education
- ✓ Provide education on how to use composting, Bokashi bins and worm farms at home
- ✓ Facilitate connections between businesses, organisations and households that allow one business' or organisation's waste to be another's useful resource



PRIORITY 4: WASTE AND RESOURCE RECOVERY EDUCATION

Focus: Increased community knowledge, skills and action to live sustainably

Council's priorities include increasing environmental awareness and education about energy efficiency, waste management, biodiversity, climate change and water conservation.

Engaging with and educating the community on waste avoidance and appropriate disposal of waste and recycling directly impacts on the success and efficiency of waste infrastructure. In order to reduce the amount of material sent to landfill, education around the services we provide, and what can and cannot go into each bin, is very important.

Council's education campaigns are conducted following the community based social marketing principles (CBSM). The CBSM principles indicates that behaviour change initiatives are most effective when they are carried out at the community level and involve direct contact with people. Information only based campaigns are not effective. CBSM focuses on encouraging positive behaviour and discusses benefits in education and engagement materials, rather than focusing on the barriers or behaviours to be discouraged.

The CBSM principles approach involves selecting the behaviour to be promoted; identifying the barriers and benefits associated with the selected behaviour; designing a strategy to address these barriers and benefits; piloting the strategy and finally; evaluating the program impact once it has been implemented on a broad scale.

The key with a CBSM approach is to ensure the community is engaged and empowered in every step of the process. Community education is critical to support behaviour change and improved waste outcomes.

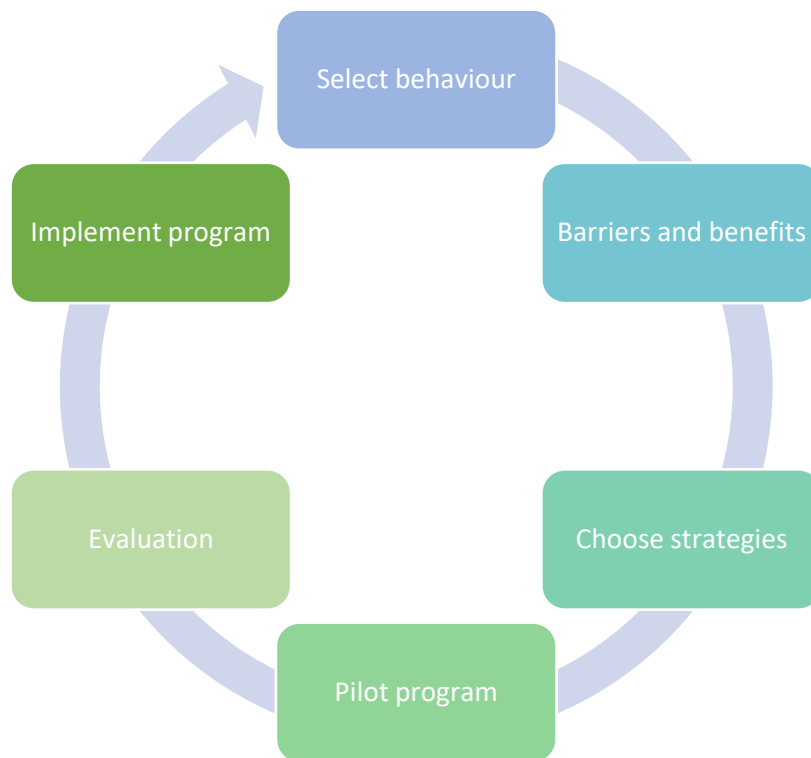


Figure 13: Community based social marketing approach to behaviour change programs

Waste education includes both internal education for Council staff, volunteers and contractors and external education for members of the community including community groups, schools, businesses and organisations.

Internal Waste Education

Council's waste staff will continue to educate other department staff on waste and recycling issues so they can be champions in the community. Audits of Council's internal bin systems will be undertaken to identify opportunities for increased resource recovery and to inform internal education priorities.

External Waste Education with Community Groups, Schools and Businesses

Council's waste staff will continue to educate community groups, schools and businesses on waste. Waste education programs are aimed at reducing barriers to correct management of waste and increasing motivation for change. Council recognises that community organisations often provide a very effective way of engaging with our community and will work with them to educate people about waste and resource recovery. Education programs should also target individual ethnic communities who may experience extra barriers to managing their waste. Council will work with language schools and services to provide information to people for whom English is an additional language.

Council will conduct targeted education in schools to reach the region's primary and secondary school students to help establish long term behaviour change. Education in schools

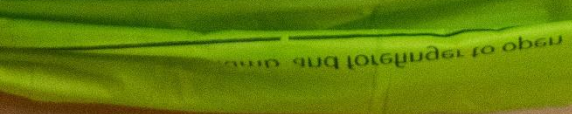
recognises the influence of our younger residents in transferring knowledge and facilitating change.

Pictorial information is essential. Council will use its multiple communication channels to provide current information and regular updates on waste services, programs and campaigns. Council will establish an external sustainability newsletter, expanding on the current internal only Let's Talk Green newsletter in conjunction with the Environmental Sustainability team.

Council will provide residents with educational materials on existing Council services, including kerbside collection and waste management facilities to improve resource recovery and reduce contamination rates.

PRIORITY 4- WHAT WE WILL DO

- ✓ Provide ongoing innovative, engaging and accessible community waste minimisation and resource education programs and behaviour change campaigns to the community and Council
- ✓ Encourage people to be accountable and take responsibility for correct disposal of their waste
- ✓ Provide the community with feedback on its resource recovery achievements
- ✓ Conduct bin inspections to provide residents with feedback on how they are going in sorting their waste
- ✓ Contribute to community newsletter about Environmental Sustainability topics including waste, biodiversity, energy, water and community engagement
- ✓ Build community trust around resource recovery through transparency about material flows and what happens to waste and recycling collected through Council services
- ✓ Ensure waste education information and resources are accessible to CALD communities

CLE

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PRIORITY 5: SUSTAINABLE WASTE AND RESOURCE RECOVERY INFRASTRUCTURE

Focus: Infrastructure and service standards supports an informed community to increase volume of materials recovered from recycling

Sustainable waste management includes recycling, reusing and recovering products. Disposal of waste to landfill has become a last resort. In order to reduce waste to landfill the community needs to be supported by infrastructure and service standards that assist them in being able to effectively manage their waste.

Council is committed to:

- Having best practice waste management infrastructure that encourages resource recovery.
- A long term (20 year) plan for the operation, closure and future waste disposal options for Mildura Landfill.
- Review, update and implement the Rural Waste Facility review recommendations to ensure the viability of rural waste facilities and their availability for our rural communities to dispose of their waste and recycle responsibly.

Contribute to a Circular Economy

As Council is a major purchaser of goods there are significant opportunities to increase demand for diverse recycled materials as part of a circular economy. For example, some of the components used in road asphalt, drainage pipes, street furniture and other commonly

used infrastructure can be sourced from recycled materials. Council will facilitate and utilise local end markets for recycled products and materials where possible.

This includes establishing and using local facilities such as the new glass processing site which is to be established at Mildura Landfill.

Council will encourage businesses to have recycling sites to increase resource recovery and create a circular economy. Examples include concrete and steel recycling and organics processing.

Alternative Waste Treatment Technologies

With the expected increase in waste and increasing need to find alternatives to landfilling, Council will continue to explore alternative waste treatment technologies. These are technologies that convert waste into energy, or useful by-products. Although landfill has its place in the overall management of waste, there are alternatives that allow waste to be utilised as a resource and reduce its environmental impact. To date, alternative waste technologies operational in Australia have generally been limited to biogas extraction from landfills, materials sorting and open windrow composting. However, other technologies and infrastructure options are becoming available. It will be important for Council to explore these options and implement viable alternatives to landfill.

Rural Site Infrastructure

Council acknowledges that even with low customer numbers and increased costs of servicing our rural sites, waste and recycling options need to be available to those communities. Further work needs to be conducted on what is going to be the best options for our rural communities, ensuring that the costs of providing the waste services are fair across the municipality and cost savings are made where possible. This may need to include rationalisation of sites, review of operating hours and review of waste acceptance types dependent on the needs of the local community.

Upgrades of the transfer stations and sites are also required to improve operations, increase resource recovery and improve community satisfaction with the sites. Council will take part in product stewardship programs for problematic waste, including all e-waste, mattresses and furniture.

PRIORITY 5 – WHAT WE WILL DO

- ✓ Rationalise and upgrade rural waste facilities according to best practice
- ✓ Advocate on behalf of the community to State and Federal government on waste policy and funding
- ✓ Advocate for increased product stewardship and take part in programs
- ✓ Facilitate and utilise local end markets for recycled products and materials
- ✓ Participate in and promote Victorian Government led programs such as Detox your Home
- ✓ Establish a 18 year masterplan for Mildura Landfill to ensure infrastructure requirements for operations and resource recovery once landfilling ceases in 2040

ACTION PLAN

Priority 1: Reduce waste generation

Action	Lead	Support	Timeframe
Education on cloth nappies and reusable sanitary products	Waste	Community Futures	2022-2026
Develop and implement Council's Single Use Plastics policy	Waste	Community Futures and Events	2022-2023
Show leadership and innovation by developing a waste management plan for Council that identifies how Council will increase waste diversion and reduce waste across the organisation	Waste	All of Council	2022-2026
Develop programs and initiatives that support local businesses, community groups and events to reduce single-use plastic items	Waste	Events	2023-2026
Work with community based groups to promote single-use plastic free behaviours to the broader community	Waste	Community Futures	2023-2026
Continue to support households to avoid and reduce waste at home via free workshops on a wide range of topics including shopping smarter to avoid, reduce, reuse and recycle waste	Waste	Community Futures	2022-2026

Priority 2: Increase resource recovery

Action	Lead	Support	Timeframe
Develop and introduce a glass recycling service	Waste		2022-2024
Explore innovative approaches to waste reuse, collection, storage and recovery	Waste		2022-2026

Encourage community driven recycling initiatives	Waste		2022-2026
Improve and expand community recycling practices through education and promotion	Waste	Community Futures	2022-2026
Standardise kerbside bin lid colours in line with Recycling Victoria policy	Waste		2024
Promote the uptake and availability of product stewardship and non-profit recycling programs such as RedCycle	Waste		2022-2026
Investigate increased recycling options at all transfer stations on an ongoing basis or as opportunities arise	Waste		2022-2026
Trial a textiles recycling collection point at Mildura landfill	Waste		2024
Trial a soft plastics recycling program at Council facilities	Waste		2024
Establish a second hand household goods reuse site at Ouyen Landfill	Waste		2025
Investigate and implement options to increase waste diversion from the commercial, construction and demolition industry	Waste		2022-2026
Engage and work with schools and businesses to improve waste systems to increase waste diversion from landfill	Waste		2022-2026
Investigate ways to engage and encourage the construction and demolition industry in Mildura to recycle as much as possible	Waste	Works and Engineering Services	2022-2026
Work in collaboration with other Council's to achieve resource recovery goals	Waste	LMWRRG, DELWP & Wentworth Shire Council	2022-2026
Deliver the Resource Recovery Grants program to businesses and schools	Waste		2023-2026

Priority 3: Beneficial use of organics

Action	Lead	Support	Timeframe
Continue to increase organic waste diversion through kerbside services	Waste	Collection contractor	2022-2026
Promote less food waste at home and businesses through education	Waste	Community Futures	2022-2026
Provide education on how to use composting, Bokashi bins and worm farms at home	Waste	Community Futures	2023-2026
Facilitate connections between businesses, organisations and households that allow one business' or organisation's waste to be another's useful resource	Waste		2022-2026

Priority 4: Waste and resource recovery education

Action	Lead	Support	Timeframe
Provide ongoing innovative, engaging and accessible community waste minimisation and resource recovery education programs and behaviour change campaigns to the community and Council	Waste	Community Futures	2022-2026
Encourage people to be accountable and take responsibility for correct disposal of their waste	Waste		2022-2026
Provide the community with feedback on its achievements in innovative ways	Waste	Media and Communications	2022-2026
Conduct bin inspections to provide residents with feedback on how they are going in sorting their waste	Waste		2024-2026
Contribute to community newsletter about Environmental Sustainability topics including waste, biodiversity, energy, water and community engagement	Waste	Community Futures and Media and Communications	2022-2026

Build community trust around resource recovery through transparency about material flows and what happens to waste and recycling collected through Council services	Waste	Media and Communications	2022-2026
Ensure waste education information and resources are accessible to CALD communities	Waste	Media and Communications and CALD organisations	2022-2026
Priority 5: Sustainable waste and resource recovery infrastructure			
Action	Lead	Support	Timeframe
Rationalise and upgrade rural waste facilities according to best practice	Waste		2023-2026
Advocate on behalf of the community to State and Federal government on waste policy and funding	Waste		2022-2026
Advocate for increased product stewardship and take part in programs	Waste		2022-2026
Facilitate and utilise local end markets for recycled products and materials	Waste	Works and Engineering Services	2022-2026
Participate in and promote Victorian Government led programs such as Detox your Home	Waste		2022-2026
Establish a 18 year masterplan for Mildura Landfill to ensure infrastructure requirements for operations and resource recovery once landfilling ceases in 2040	Waste	Community Futures, Aroundagain, Organics and recycling contractors	2023

TARGETS AND MEASURES OF SUCCESS

Our targets for the *Waste and Resource Recovery Strategy 2022-2026* include:

- Zero waste to landfill by 2050
- Ongoing increase in waste diversion
- Net zero emissions for landfill by 2050
- Increase in mean average score of community satisfaction scores for waste and resource recovery by 2026

Council undertakes regular reporting on waste and resource recovery indicators according to regulatory requirements. This includes reporting to different State Government bodies and within Council. Council commits to annual reporting to the community on waste and resource recovery indicators and achievements. The following key performance indicators will be used:

- Tonnes of waste sent to landfill each year
- Tonnes of material recycled each year by waste type
- Tonnes collected and diverted through the kerbside service
- Kerbside audit data for contamination and percentage of materials in each kerbside bin
- Number of education and community engagement activities each year



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GLOSSARY OF TERMS

Biodegradable: Refers to products with accelerated degradation due to additives or organic base components. Note that the terms biodegradable and compostable are not synonymous. Not all biodegradable materials fully decompose in the environment.

Compostable: Refers to materials that completely decompose. Compostable products are generally made of a plant starch that returns to base organic components when composted.

Composting: A process whereby organic materials are transformed under specific thermal and oxygen conditions to product a nutrient rich soil or compost.

Contamination: Inappropriate or unwanted waste material. For example, landfill/rubbish placed in a recycling bin.

Diversion rate: The amount of recycling and food and garden waste which is diverted from landfill, divided by the total waste collected.

E-waste: Electronic or electrical equipment which typically has a power supply or contains batteries.

General Environmental Duty (GED): The basis of the new Environmental Protection Act is the General Environmental Duty. This requires all Victorians to understand and minimise their risks of harm to human health and the environment, from pollution and waste. Everyone is now responsible for the classification and transport of waste and the disposal of waste at a lawful place.

Food and garden organics: Food scraps and garden materials that are put into the kerbside organics waste bin so that it can be made into compost. Items include, but are not limited to, meat, seafood, bones, breads/grains, egg shells fruits, nuts, vegetables, dairy (e.g. cheese and yoghurt), tea bags, coffee grounds, pizza boxes, grass, leaves, small branches, weeds, pet waste, fur/feathers and compostable caddy liners.

Illegal dumping: Larger items, such as white goods, building and demolition waste or significant household waste that has been disposed of inappropriately.

Landfill: A landfill is a specially designed and engineered facility for the burial of solid waste. The Environment Protection Authority Victoria require landfills to be licensed.

Landfill Levy: A landfill disposal tax collected and administered by the Victorian government. Increasing landfill levies provides a financial incentive to reduce waste and explore other means of treating or processing waste.

Lawful place: A lawful place is somewhere lawfully authorised to receive waste. If you generate, transport or receive waste, you must make sure it ends up at a lawful place.

Litter: Small items of waste disposed of inappropriately.

Organic: Organic waste is waste relating to or derived from material that was once living (excluding petroleum based materials).

Product Stewardship: Product stewardship is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimising the product's environmental impact throughout all stages of the product's life cycle, including end of life management.

Transfer Station: A depot for the receipt and aggregation of waste streams prior to their transport to a processing facilities for additional sorting, recycling or disposal.

Waste: Materials or products that are unwanted or have been discarded, rejected or abandoned, including materials or products that are recycled, converted to energy, or disposed.



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