

DRAFT WASTE AND RESOURCE RECOVERY STRATEGY 2030



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Acknowledgement of country

Council respectfully acknowledges Moorabool Shire's indigenous history and we pay our respects to its elders both past, present and emerging. We extend that respect to all Aboriginal and Torres Strait Islander People who are a part of Moorabool Shire.

Our land was traditionally occupied by, and connected to, a number of Aboriginal communities for tens of thousands of years. This land is home to the Wadawurung Tribe in the south and west, the Dja Dja Wurrung Tribe in the northern ranges and the Wurundjeri Woi Wurrung Corporation in the east.

We appreciate our responsibility to care for the land and maintain it for future generations to enjoy.



Lal Lal Falls are believed to be the earthly home of Bunjil, the All Father or Creator to most Victorian Aboriginal tribes.

A message from the Mayor

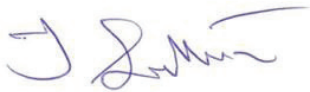
The Moorabool Shire is growing at an unprecedented rate. Our priority is to ensure our great Shire retains its liveability and protects the environment for generations to come. We are looking forward to meeting the ambitious waste and recycling targets set by state and federal governments by 2030.

The days of sending large volumes of waste to landfill are over. The traditional methods we've used to manage or dispose of waste are not sustainable. As a community, we must approach things differently, and find innovative, local solutions to keep materials in circulation for as long as possible. Our long-term strategy highlights actions and education programs that will significantly reduce waste, enhance our current services and facilitate resilient community networks that prioritise reuse over disposal.

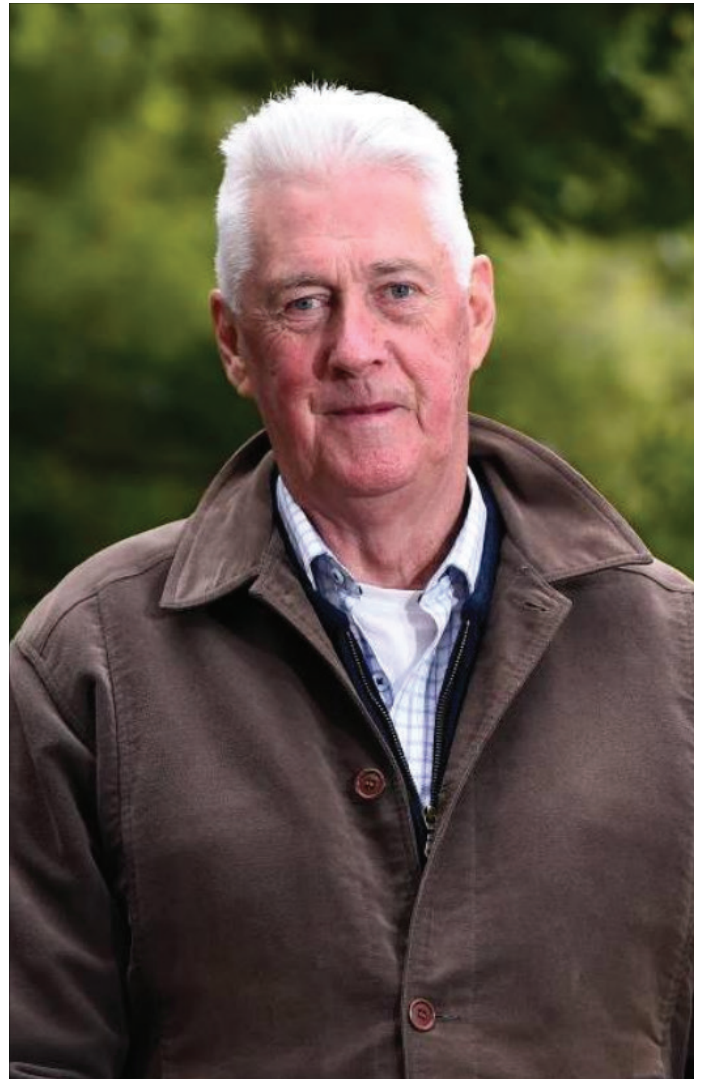
The Moorabool Shire Council will advocate to all tiers of government for the revitalisation of a sustainable waste and resource recovery sector in Victoria. If we are to win this war on waste – there must be adequate processing facilities available to recover more materials.

Our Shire is a stunning place and home to natural assets found nowhere else. Residents and visitors alike appreciate the Moorabool Shire for its beauty. Through the life of this document, we have proposed actions that tackle the challenges associated with litter and dumped rubbish to preserve the Shire's unique ecosystems.

Above all, keeping costs down for our ratepayers is a key priority for this body of work.



Mayor Cr Tom Sullivan



Introduction

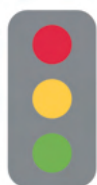
The waste and recycling system in Australia is undergoing transformation. Our Draft Waste and Resource Recovery Strategy 2030 has been developed to guide the Moorabool Shire Council and community to use resources more efficiently, reduce litter, send less to landfill, and adopt a culture of reuse.

Strategic actions have been developed to support our local economy, protect the health of our community and reduce the environmental impacts of waste. The Strategy is designed as an action document to align with federal and state government policies and priorities, and government departments with statutory responsibilities.

Our Vision

To transform the Moorabool Shire into a low waste municipality by embracing sustainable practices that increase resource recovery, encourage a circular economy and protect the environment.

Moorabool Shire Council has identified three overarching goals to guide the delivery of the 2030 Waste and Resource Recovery Strategy:



Goal 1. AVOID

waste creation through education initiatives and improved management practices

Every person on earth uses and disposes of materials in their daily lives. Each of these materials, be they clothing, food, packaging or furniture, consume resources in their creation and disposal.

Our Strategy presents initiatives that will support waste minimisation practices within the community and council operations. The Shire will bring circular, socially inclusive and sustainable solutions to life that exceed the traditional bin-based-collect-dispose approach to waste management.



Goal 2. RECOVER

more materials by viewing waste as a resource

To ensure we get most of the materials we use – we need accessible, local and equitable resource recovery services.

Our Strategy will guide how we deliver Recycling Victoria's four stream waste and recycling system, review and enhance the effectiveness of our Transfer Stations and provide deeper education to the community to maximise resource recovery.



Goal 3. PROTECT

our community and environment from the impact of waste

The Moorabool Shire boasts countless natural wonders and an abundance of stunning wildlife that deserve protection from the impacts of litter and illegally dumped waste.

Our Strategy presents initiatives that will collaborate with the community, neighbouring municipalities, the Environment Protection Authority and local environment groups to preserve our natural assets. The Shire's environmental significance need to be conserved not only for their intrinsic environmental and landscape values but also as economic and recreational resources to the Shire.

Our Draft Waste and Resource Recovery Strategy 2030 is available for community feedback on Moorabool's Have Your Say page for 6 weeks from February 2022.

About the Moorabool Shire Council

The Moorabool Shire is a fast-growing peri-urban municipality nestled between Melbourne, Geelong, and Ballarat. It is picturesque and friendly with the vibrancy of an active, growing community.

The Shire covers 2,110 square kilometres and is characterised by distinctive rural landscapes which comprise a diversity of ranges, plains, ancient gorges, and areas of intensive horticulture.

Agriculture is the major sector in Moorabool's economy and contributes to the rural landscape

setting that typifies the Shire. The Moorabool Shire is an increasingly popular choice for those seeking rural tranquillity with a mix of an urban lifestyle.

The current population of 36,344 is forecast to double by 2041. The future will see significant residential growth in Merrimu and Parwan Station.

The municipality contains 64 settlements of varying sizes. These range from small towns, hamlets and farming settlements to the larger districts of Bacchus Marsh and Ballan.



A snapshot of our services

Kerbside collection service



IN 2020/21:

14,049 households in the Moorabool Shire had a kerbside garbage and recycling collection



Garbage

Urban households have a 120L bin collected weekly.

Rural households have a 240L bin collected fortnightly.



Recycling

Urban and rural households have a 240L bin collected fortnightly.



Greenwaste

Greenwaste is an optional 240L fortnightly service for households in urban areas.

3,974 households have a greenwaste service.

Transfer stations



Three Transfer Stations within the Shire allow residents to drop off waste and recyclables:

- Osborne Street, Bacchus Marsh
- Monteville Lane, Ballan
- Ballan- Egerton Road, Mount Egerton

Residents without access to kerbside waste collections can access the transfer station drop off service via a voucher payment system.

FREE to drop off:

- Recyclables: cardboard/paper, steel, aluminium, glass, plastic containers #1, #2, #5
- Electronic items (appliances and whitegoods)
- Light globes
- Batteries (household & car)
- Scrap steel
- Car engine oil
- Drummaster chemical drums



Charge to drop off:

- General waste
- Tyres
- Furniture
- Mattresses
- Greenwaste



Not accepted:

Building rubble, soil, bricks, cement, car bodies, gas bottles, fire extinguishers

e-waste



Electronic waste recycling stations are available at these Council buildings:

- 15 Stead Street Ballan
- 182 Halletts Way Darley
- 215 Main Street Bacchus Marsh

Phones, batteries, light globes and printer cartridges only.

Public garbage bins



140 bins provided in Parks, Gardens, Halls and Reserves
229 clearances per fortnight

87 street litter bins
526 clearances per fortnight

Schools & community groups



A Council waste and recycling service is available to schools and community groups.

Sustainable events trailer



Our sustainable events trailer can be borrowed at no cost to manage waste and recycling at events.

Litter and dumped rubbish removal



Our Litter and Graffiti Team provide a rapid response clean up service in the Shire to remove litter and dumped waste.

Street and footpath sweeping



Our street sweeping service minimises litter entering our waterways and maintains an attractive environment for residents and visitors.

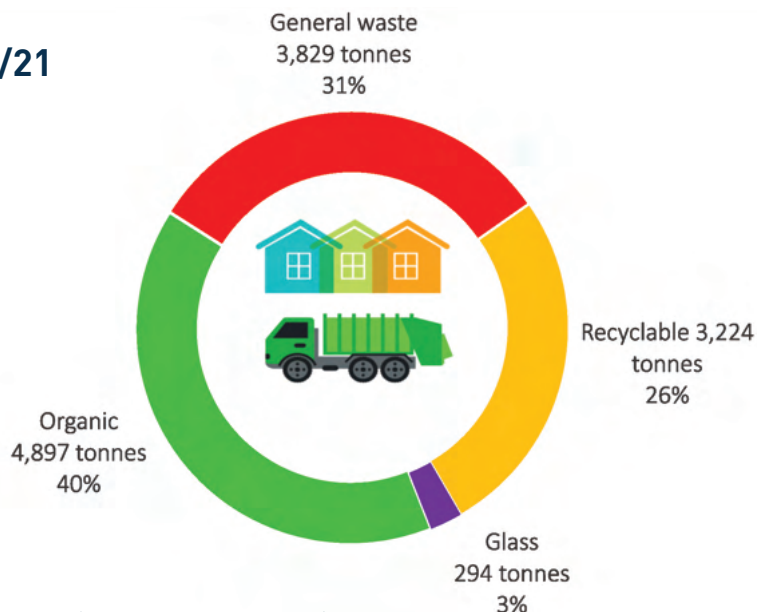
What's in our bins?

Regular audits of kerbside waste streams are undertaken to understand how residents use their bins and to inform education initiatives. Audits also provide insight as to the potential landfill diversion and resource recovery rates that can be achieved with the introduction of the Recycling Victoria four stream system by 2030.

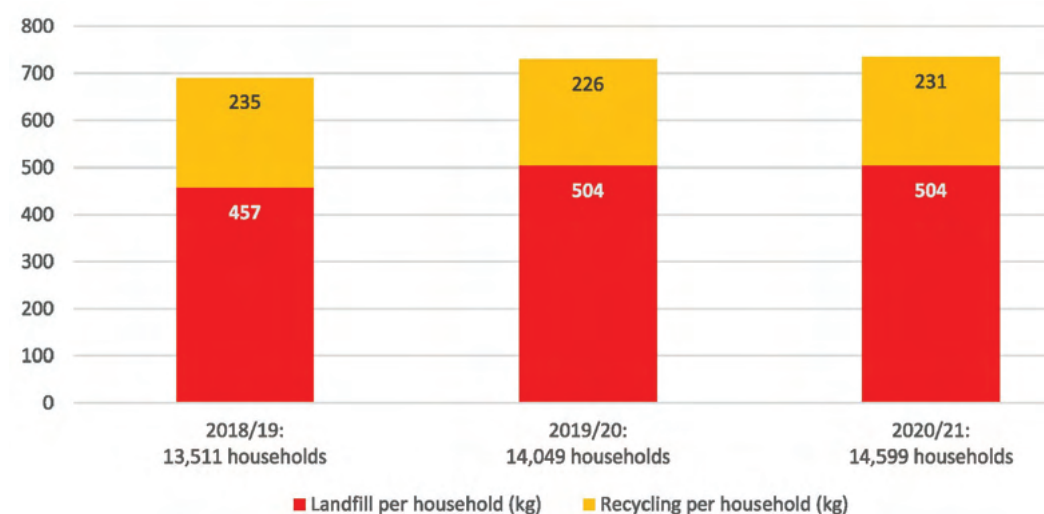
Total kerbside material collected 2020/21

In the 2020/21 financial year, 12,244 tonnes of material was collected from 14,049 households.

The proportion of each material collected in accordance with the future 4 stream service as per Recycling Victoria is shown on the right.



Household waste and recycling generation (kg / HH / year)



Waste and recycling generation at the household level is shown on the left.

The average household with a kerbside collection generated 504 kilograms of waste and 231 kilograms of recycling in the 2021/22 financial year.

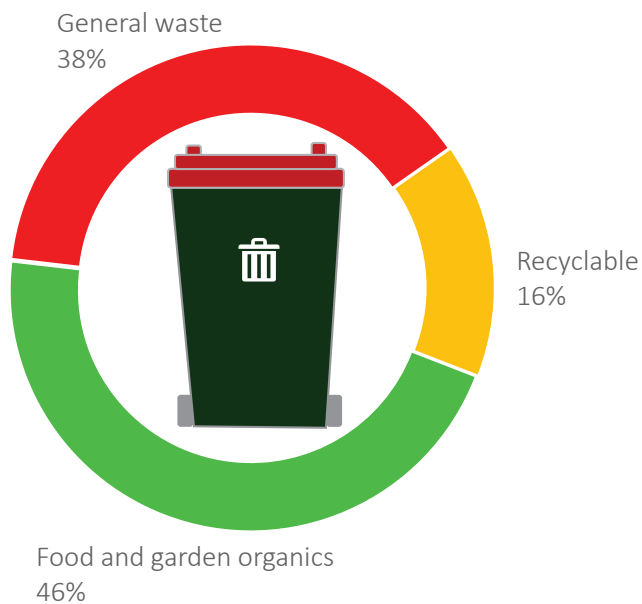
Kerbside materials destination 2020/21

The Shire's current resource recovery rate is 31%.

- Of the 12,244 tonnes of material generated, 3,833 tonnes was recovered
- Of the 3,224 tonnes of recyclables generated, 1,149 tonnes ended up in landfill
- The current greenwaste service diverted 1,464 tonnes of garden waste from 3973 households.
- A FOGO service, if provided to the entire Shire, could divert a further 3,433 tonnes from landfill.



Kerbside **garbage** stream composition 2020/21

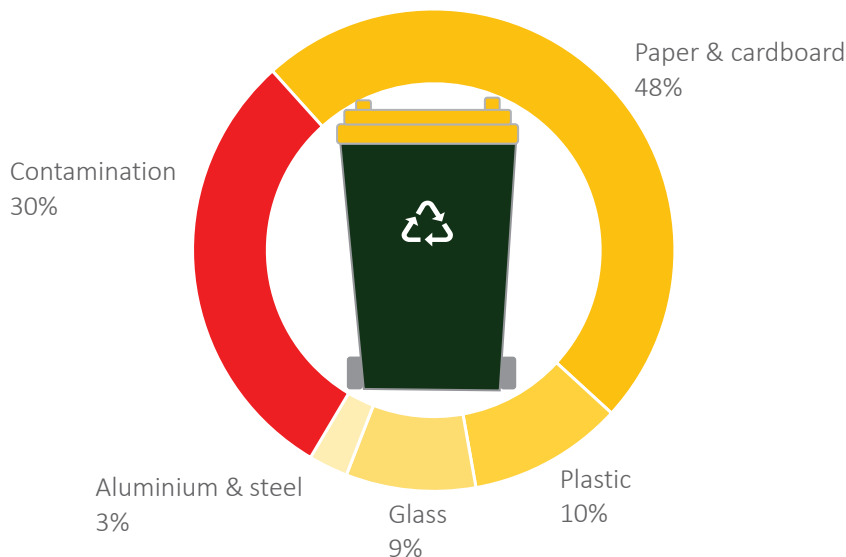


The garbage stream consisted of 16% recyclables, 46% food and garden organics and 38% general waste.

Improving resident awareness of the full range of recyclables has the capacity to decrease landfill tonnages by 16%.

A FOGO service has the capacity to decrease landfill tonnages by 46%.

Kerbside **recycling** stream composition 2020/21



The recycling stream consisted of 70% recyclables and 30% contamination.

'Contamination' refers to the incorrect materials placed in the recycling bin.

The contaminants observed were:

- General waste (16%)
- Non-kerbside recyclable plastics (7.5%)
- Textiles (4%)
- Ceramics and glassware (1%)
- Nappies (1%)
- Recyclables in plastic bags (<1%)

Kerbside **greenwaste** stream composition 2020/21



The greenwaste stream consisted of 97% garden organics and 3% contamination.

Contaminants observed were plastic potting mix bags, treated timber, plant pots and oversized branches.

The current greenwaste service is an 'opt in' arrangement for households within urban areas of the Shire.

Food organics are not currently accepted in the lime green lid bin.

Where to from here?

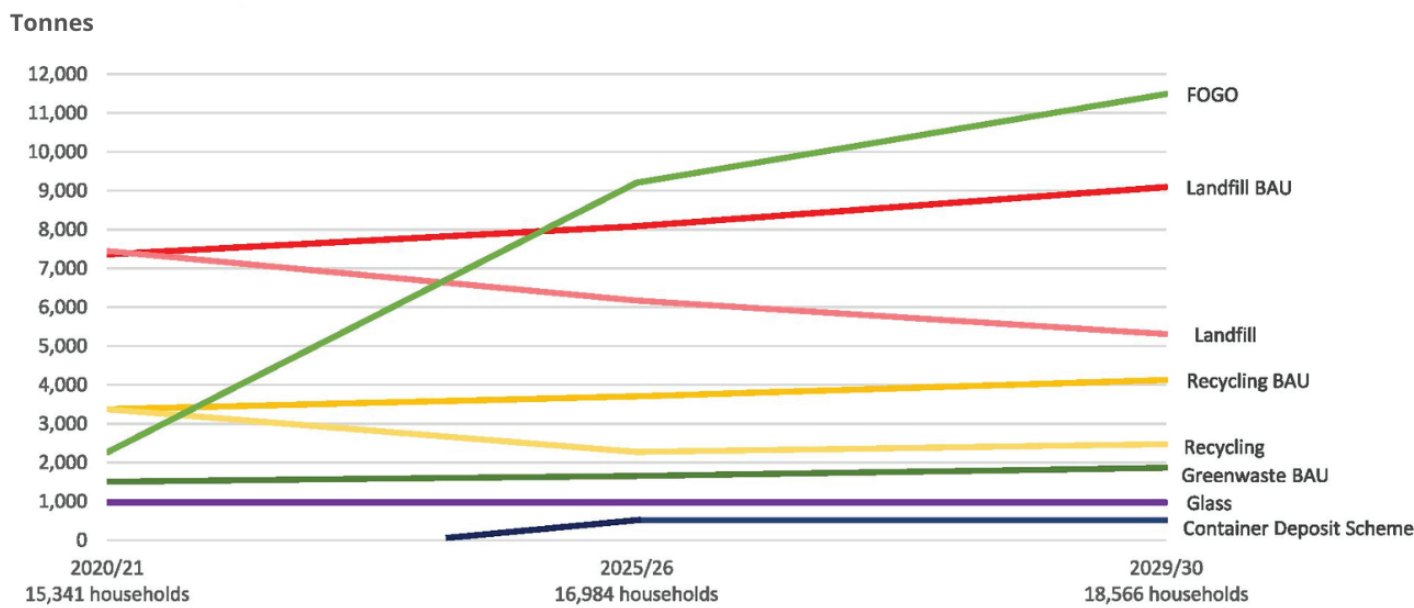
The below chart projects tonnages to 2030 in a 'business as usual' (BAU) waste service delivery model and compares it to the potential outputs of the new *Recycling Victoria* waste streams. All data is presented in respect to projected population growth in the Shire.

The associated tonnages of drink containers captured through the Container Deposit Scheme (CDS), which is expected to be fully operational by 2024, is also shown. The existing recycling tonnages will decrease in response to the CDS and separate glass bin.

The chart shows new services being introduced in 2022 and assumes that all households with access to a kerbside collection will have all four waste streams collected from home.

This data has been prepared as an example of how the future of waste services could be delivered in the Shire. It is intended to show the potential outcomes relating to the Recycling Victoria policy and is not the Shire's confirmed delivery method. Further community consultation will be conducted.

Projected tonnages: Business as Usual and Recycling Victoria waste streams

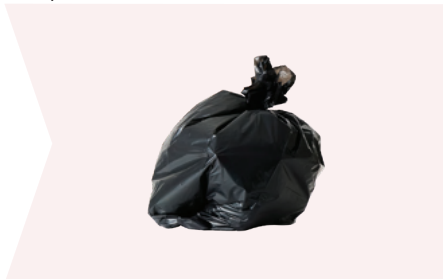


Transfer stations

Moorabool owns three contractor-managed transfer stations in Bacchus Marsh, Ballan and Mount Egerton. They allow residents to drop off waste and recyclables before being transferred to a processing facility. Residents without access to a kerbside collection service can opt to purchase vouchers to drop off waste at the transfer stations. The full list of items accepted at the transfer stations is detailed under 'A snapshot of our services' earlier in this document.

In the 2020/21 financial year, the transfer stations yielded:

1,425 TONNES GARBAGE



74 TONNES RECYCLING



444 TONNES GREENWASTE



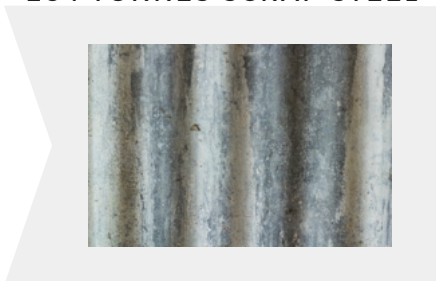
24 TONNES E-WASTE



302 MATTRESSES



204 TONNES SCRAP STEEL



Moorabool is aware of reuse and resale centres operating in other municipalities and will explore how a sustainable model could be established at our transfer stations to keep useable goods such as furniture, clothing and household items in circulation and provide benefit to the community. It is important to note the work our local Op Shops already do in this arena, so the intent behind any Council run Resale Shop would be complementary, not competitive.

Through delivery of the Strategy, Moorabool will undertake a review of transfer station operations in consultation with service providers with a view to increase material recovery streams and ensure appropriate infrastructure. We will work more closely with our contractors to collect more robust data for reporting purposes.



Hard waste

'Hard Waste' refers to household items such as broken or unwanted furniture that cannot be disposed of in a bin. The Shire does not currently provide a kerbside collection for hard waste – and disposal of these items (excluding recyclable electronic items) incur a cost at our transfer stations.

Through delivery of the Strategy, Moorabool will investigate the viability of different options to assist ratepayers with hard waste disposal. The Shire encompasses both urban and rural areas and must therefore consider how a practical and affordable solution could be offered to all households. The approach to hard waste management varies considerably between metropolitan and regional councils. Many councils are moving to a 'fee for service' approach for hard waste services as they are perceived as more equitable.

The cost to deliver any hard waste service will be based on a full cost recovery scenario.

E-waste

Electronic waste (or e-waste) refers to any unwanted item with a plug, battery or power cord. From your old phone to your broken vacuum cleaner or run-down fridge, it covers a range of household items and appliances. E-waste is the fastest growing waste stream in Australia, growing at three times the rate of general municipal waste. From 1 July 2019 – all e-waste was banned from being disposed of in landfill.

It is vital to recover e-waste as it contains both hazardous and valuable materials such as gold, zinc, platinum and more. By recovering these precious materials, we avoid extracting these finite resources from the earth.

Moorabool Shire provides free e-waste recycling drop off at its three transfer stations. Three e-waste drop off points for small items (phones, batteries, light globes and printer cartridges) are located at the Darley and Ballan customer service centres and the Lerderderg Library.



Litter and illegal dumping

The Moorabool Shire hosts many environmentally sensitive areas and waterways. Unfortunately, the instances of litter and dumped rubbish is increasing, in turn having detrimental effects on the natural environment.

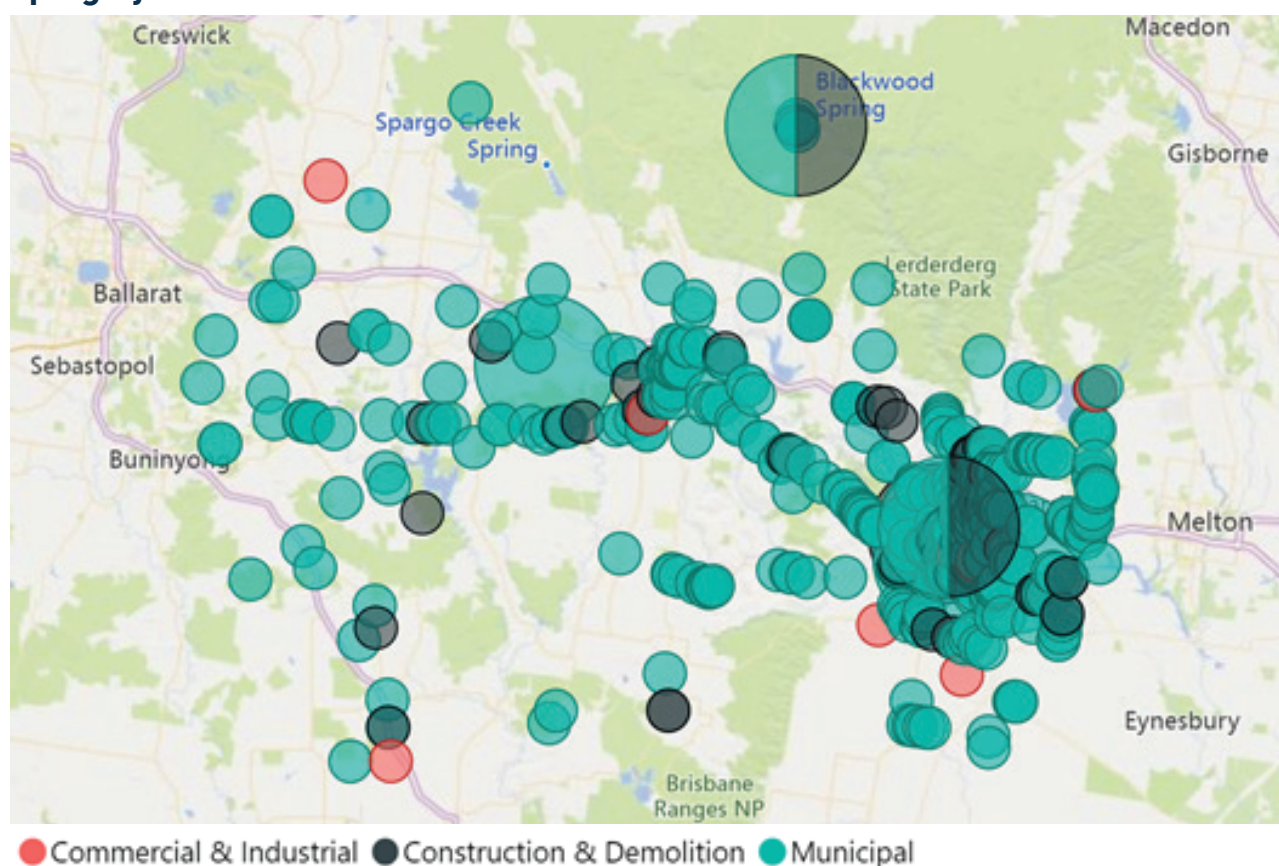
In 2021, 582 incidents of illegal dumping was collected in the Shire.

- 499 incidents contained residential/domestic materials while 83 incidents originated from the Construction and Demolition (C&D) and Commercial and Industrial (C&I) sectors.
- From 13 dumping incidents in the past year where the origin of the material could be traced - 2 originated from within Moorabool Shire while 11 were from outside the Shire.

Further Observations:

- 25% of materials were recyclables - free to drop off at Transfer Stations. e.g. paper, cardboard, E-waste, whitegoods and metal.
- 8% of materials were 'garden organics' - half the general waste gate fee to drop off at the Transfer Stations or collected via our urban greenwaste kerbside service.
- 8% of materials originated from the Construction and Demolition (C&D) and Commercial and Industrial (C&I) sectors.

Dumping by Source Sector



Moorabool Shire Council takes littering and illegal dumping seriously. Our Community Safety Team investigates dumped waste in search of identifiable material, and where possible, issue fines to offenders. In 2020, two positions were created to form our first Litter and Graffiti Team to provide a rapid response to this issue. In the case where dumped rubbish exceeds the capacity of the internal team to remove - such as dumped soil and concrete - a contractor is sent to remove the waste at significant cost.

Why we need a strategy

As Moorabool’s population grows, and the waste system in Australia transforms, we need to find better ways to manage our resources to ensure the environment is protected for generations to come.

Policy, regulatory and industry changes

To align with state and federal government priorities, Moorabool must significantly reduce waste to landfill and increase resource recovery. Over the next three years, Victoria’s State Government landfill levy is set to almost double to incentivise waste reduction, resource recovery and technologies that value ‘waste’ as a resource. As per the state government’s Recycling Victoria policy, by 2030, all residents of Victoria must have access to the same four-stream resource management system. Moorabool will navigate these changes by undertaking a robust cost modelling analysis to determine the best way to implement the new system. We will continue consultation with the community, service providers and all levels of government to ensure a considered outcome for all.

Population growth and managing expectations

Moorabool’s population is expected to double to approximately 72,000 people by 2041. More household waste will be generated as population increases. These changes will put pressure on our existing services and infrastructure. We need to plan ahead to manage associated costs effectively and meet the expectations of new and existing residents.

Dispersed population

Moorabool’s dispersed population and distance from local resource recovery facilities presents challenges. Recyclables and garbage are transferred to Melbourne at considerable relative cost. Greenwaste, however, is processed at the Mount Wallace Pinegro facility within the Shire.

A range of kerbside collection services are provided to the community as shown below. Approximately 700 households, however, are situated on inaccessible roads or are isolated from a serviceable area. These households utilise the transfer station drop off service or private contractors to manage their waste. Furthermore, like many rural councils, access to a kerbside hard waste collection is not currently offered due to the cost and logistical challenges.



Compulsory, non-compulsory and non-serviced tenements

Compulsory kerbside collection	Urban residential and rural tenements within Residential, Low Density Residential, Township and Rural Living planning zones receive a compulsory kerbside garbage and recycling service.
Non-compulsory kerbside collection	Residential rural tenements within ‘waste zones’ but outside of compulsory planning zones can ‘opt-in’ to a kerbside service i.e. request a fortnightly kerbside service (for garbage and commingled recycling).
Non-serviced areas	Residential / rural tenements that fall outside of ‘waste zones’ are unable to access any council kerbside service.



Why we need a strategy

Protecting natural assets

Moorabool Shire boasts many natural wonders and is home to magnificent wildlife. Throughout the Strategy's consultation process, residents reported a 'pride of place' sentiment. For many of us, Moorabool's natural beauty is why we're here. We love the birdlife, the platypus, the echidnas – we admire the rolling hills of farmland and we now host a few national parks. Council and community alike recognise how we must work together to reduce instances of litter and dumped rubbish to improve amenity and protect our environment.

Shared responsibility between community and Council

The Shire is responsible for the delivery of effective waste and recycling services, yet the whole community plays a vital role in the management of waste. The waste challenge is complex, multifaceted and universal. We must all step up and take responsibility for the purchases we make, and how we manage materials once we don't need them any longer. Every person who lives, works or plays in the Shire has an opportunity to make Moorabool a better place.

Promoting and practicing waste avoidance

The best way to manage waste is to avoid creating it in the first place. As a community and Council, we need to reconsider our relationship with the products we use in our daily lives. While recycling is a good place to start, is not the only action we can take. We must embrace alternatives to single use items and reduce waste generation. Moorabool plays an important role in providing ongoing education and behaviour change campaigns that empower the community to make informed decisions that avoid unnecessary waste

Contamination and wishcycling

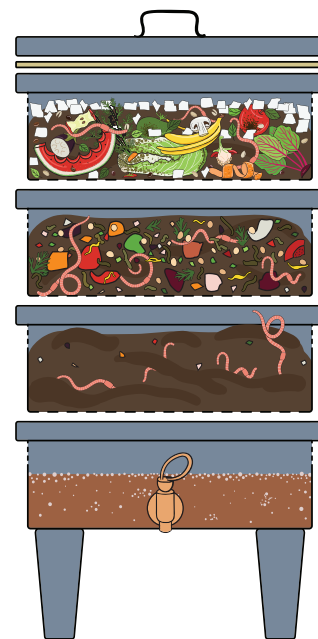
Almost everyone wants to get it right on bin night. No one means to put the wrong thing in the recycling bin – they just 'wish' everything could be recycled. This phenomenon is known as 'wishcycling'. Unfortunately, wishcycling leads to contamination often meaning our good intentions end up in landfill. Regular audits of residential recycling bins reveal contamination rates between 25% and 30%. Through delivery of recycling education programs Moorabool will assist the community in making the most of their recycling to recover more resources.

Increasing resource recovery

Resource recovery means making use of a 'waste' material through recycling or reuse – rather than sending it to landfill. Food waste is a significant problem in Australia. Throwing away one burger wastes the same volume of water as a 90-minute shower. Waste audits have revealed almost half (46%) of Moorabool's garbage stream consists of food and garden material, while a further 16% is represented by recyclables. Food and garden organics are valuable resources that can be harnessed and returned to productive use such as compost to improve soil health. There is considerable scope to improve resource recovery through targeted education and new services in Moorabool.

The problems with plastic

Many plastics are not easily recycled, or economically viable to be recycled within current facilities. In fact, only 12% of plastic is recycled annually in Australia. In a business-as-usual scenario, according to a report prepared by the Ellen MacArthur Foundation, by 2050, it is estimated that by weight there could be more plastic in the ocean than fish. Plastic breaks down further into microplastics which are often confused as a food source by aquatic wildlife. The state government has issued a ban on problematic single-use plastics which will come into effect in February 2023. Items under the ban include straws, cutlery, plates and more – all used for a few minutes but persist in the environment for hundreds of years. Moorabool Shire plays an important role in ensuring the community and businesses are informed and supported in light of these changes.



Transition to a circular economy

In 2020/21 the average household in Moorabool sent 500kg of material to landfill – and the trend is only increasing. As a society we have become accustomed to buying new things, using them for a short time and then throwing them away – thus losing potential resources to landfill forever. This ‘take-make-waste’ linear economy is not sustainable and consumes resources beyond our planet’s capacity to restore them. In natural processes, nothing is wasted. The circular economy aims to reinvent the system by seeing waste as a design flaw. As a Shire, we must work together to find innovative ways to keep materials in use and work within planetary boundaries.



Keeping costs down

While our systems are under pressure from external influences such as the state landfill levy and federal waste reduction targets, Moorabool is committed to sustaining economically viable and cost-effective waste services that serve the community equitably. Current and future waste services will be cost-recovered via waste service charges on rates notices and external funding sources where available.

Business, industrial and commercial waste management

Moorabool provides a kerbside garbage collection to businesses opting into the service. Through delivery of this strategy, the Shire will consider how the business service offering could be extended to include recycling, organics and glass services too. We will investigate opportunities that encourage business to business exchange of materials locally that support the waste hierarchy and the circular economy.



Container Deposit Scheme and public place recycling

A network of public place garbage bins are situated across Moorabool’s parks, gardens, halls and reserves. With the rollout of the state’s Container Deposit Scheme in 2023 – Moorabool will need to consider whether it would be more effective to introduce public place recycling or rely upon CDS outlets for resource recovery.

Pilot programs, technologies and partnerships

With much innovation in the waste and resource recovery space right now, Moorabool is well placed to undertake new pilot programs that avoid and recover waste. Small scale trials will allow us to learn from the evidence and focus on what works before promoting services to the greater community. With farming and agriculture being such a prominent economy in the Shire – there are unexplored opportunities to test local solutions to recover food waste and return it back to the soil as compost.



Our direction

Moorabool Shire Council has aligned with the below policies, targets and priorities in development of the Strategy.

Waste and resource recovery in the Moorabool Shire is governed by national, state and local government acts, regulations and policies.

Our strategy has been developed to respond to this broader regulatory and policy environment and informs our decision making and compliance obligations.

Our Strategy aligns with Moorabool’s Community Vision 2030 and the Council Plan 2021 – 2025.

We have drawn on community feedback and interest as well as current industry knowledge of waste sector issues and opportunities.



National Waste Policy: Less Waste More Resources 2018

The National Waste Policy provides a framework for collective action by businesses, governments, communities and individuals until 2030.

Five key circular economy concepts are outlined:

- Avoid waste
- Improve resource recovery
- Increase the use of recycled materials and increase demand for recycled products
- Better manage material flows to benefit human health, the environment and the economy
- Improve information to support innovation, guide investment and enable informed consumer decisions.



National Waste Policy Action Plan 2019 targets:

- Ban the export of waste plastic, paper, cardboard, glass and tyres by the second half of 2020.
- Reduce total waste generation by 10% per person by 2030.
- Increase resource recovery to 80% from all waste streams by 2030.
- Increase the use of recycled content by government and industry.
- Phase out unnecessary plastic by 2025.
- Halve the amount of organic waste sent to landfill by 2030.

Recycling Victoria: A new economy

Recycling Victoria— Victoria’s 2020 circular economy policy presents a long-term plan to improve the recycling system and promote innovative use of resources by transitioning toward a circular economy.

Key outcomes

- **Standardised four stream waste service across Victoria.** By 2030 all households will have access to a kerbside or drop off option for:
 - Recycling (yellow lid)
 - Food Organics Garden Organics (green lid)
 - Glass recycling (purple lid)
 - General waste (red lid)
- **An annual increase in landfill levy to promote resource recovery over landfill.** The landfill levy is increasing from \$65.90 (2020) to \$125.90 (2023) per tonne at the landfill where your garbage is disposed.
- **Introduction of a Container Deposit Scheme (CDS) by 2023.** A ‘take-back’ program for commonly littered drink containers offering cash rewards to community groups, charities and individuals.
- **Public investment to strengthen Victoria’s waste and recycling industry** – grow the local industry, create local jobs and drive innovation and new technologies.
- **Regulation of the waste and recycling sector** through establishment of a new Waste Authority and Waste Act – putting an end to illegal and unsafe storage and stockpiling of waste.

Recycling Victoria targets:

- Cut total waste generation by 15 per cent per capita by 2030.
- Divert 80 per cent of waste from landfill by 2030, and an interim target of 72 per cent by 2025.
- Halve the volume of organic material going to landfill between 2020 and 2030, with an interim target of 20 per cent reduction by 2025.
- All Victorian household to have access to food and garden organics recycling or local composting by 2030.

Circular Economy (Waste Reduction and Recycling) Bill 2021

The *Circular Economy (Waste Reduction and Recycling) Bill 2021* will see the establishment on 1 July 2022 of Recycling Victoria. Recycling Victoria will be headed by a senior executive public service employee with distinct legislative functions and powers to oversee and provide strategic leadership for the waste and recycling sector. The Head of Recycling Victoria will be supported by DELWP employees within a dedicated business unit.

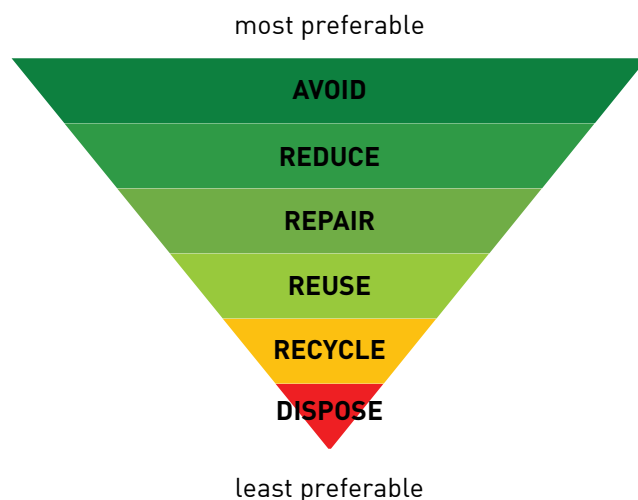
Waste and resource recovery groups (WRRGs) will be dissolved and relevant functions, alongside some waste and recycling functions currently undertaken by Sustainability Victoria (SV), will be transferred to Recycling Victoria. Recycling Victoria will assume and build upon existing data and reporting functions currently performed by SV.

Recycling Victoria will have powers to regulate waste and recycling services, oversee the container deposit scheme, gather data and report on the state of the market, and will facilitate strategic procurement of services in collaboration with councils. Development of the standards for the four services will be done in consultation with local governments and industry and will include flexible service models to meet the needs of different localities across the state.

The Waste Hierarchy

Moorabool seeks to achieve optimal environmental outcomes by managing waste in accordance with the waste management hierarchy as defined in the Environment Protection Act 2017.

Avoid & reduce	The highest priority is avoiding and reducing waste generation. E.g. avoiding disposable goods or single use items.
Reuse	Reusing items, rather than buying new, reduces reliance on virgin materials.
Recycle	Reprocessing materials to create new products e.g. PET bottle recycled into fleece textiles.
Recover	Many products that are difficult to recycle can be burned to provide energy. Energy from waste technology is still in the early stages of development in Victoria.
Treat & dispose	Disposal is the least preferred option for materials. Some hazardous chemicals or asbestos, however, cannot be safely recycled and require direct treatment and disposal.



Recycling and Waste Reduction Act 2020

The Recycling and Waste Reduction Act 2020 aims to prevent untreated and unprocessed waste from being sent offshore and to increase the capacity of our local waste industry to collect, recycle, reuse and convert waste into new products. The Act seeks to do this by firstly, banning the export of certain waste materials, secondly establishing a new product stewardship rules and regulations and thirdly providing for a range of compliance, enforcement and audit mechanisms.

The schedule of National export bans are as follows:

- Waste glass from 1 January 2020
- Mixed plastics from 1 July 2021
- Whole used tyres from 1 December 2021
- Single resin or polymer plastics from 1 July 2022
- Mixed and unsorted paper and cardboard from 1 July 2024

Environmental Protection Act 2017

This update to Victoria's environment protection laws came into effect from July 2021. The updated laws give more powers to the Environmental Protection Authority and tools to prevent risks to the environment and human health. It allows for stronger sanctions to hold polluters to account. The general environmental duty is central to the new laws and it requires all Victorians to manage risks to human health and the environment that their activities create. Under the Act, everyone has a responsibility to make sure their waste goes to the right place.

Container deposit scheme

Victoria will be Australia's last state to introduce a Container Deposit Scheme (CDS) by 2023. A CDS is a product stewardship program where the beverage industry takes responsibility for the recovery and recycling of empty beverage containers. The program incentivises the return of approved containers to reverse vending machines or over the counter at shops by offering a cash incentive (10c) for each item.

The introduction of the CDS is an exciting prospect for many charity groups, sporting clubs and schools as a means of earning funding – either by hosting a drop off point, or by nominating to be a recipient of donations. Where the CDS is in operation - substantial reductions in litter have been observed – improving amenity while recovering more resources.

While the CDS is a state government initiative, Moorabool will work with the administrators of the scheme to identify gaps in the drop off point network. The Shire will explore opportunities to set up drop off points at transfer stations and council offices and support local community groups to establish sites.



Transition to a four-stream system

The Recycling Victoria policy mandates that all homes in Victoria will have access to a standardised four stream waste and recycling system by 2030. These changes will recover more organic waste and improve the quality of the material in the yellow lidded recycling bin by separating out glass.

A first-year action of the Strategy is to undertake a detailed cost modelling analysis to formulate a timeline for the roll out of new services. The modelling will also assess logistics such as collection frequencies, bin sizes for new and existing streams, drop off options and processing facilities. Feedback gathered during the consultation process will also shape how the four-stream system is provided.

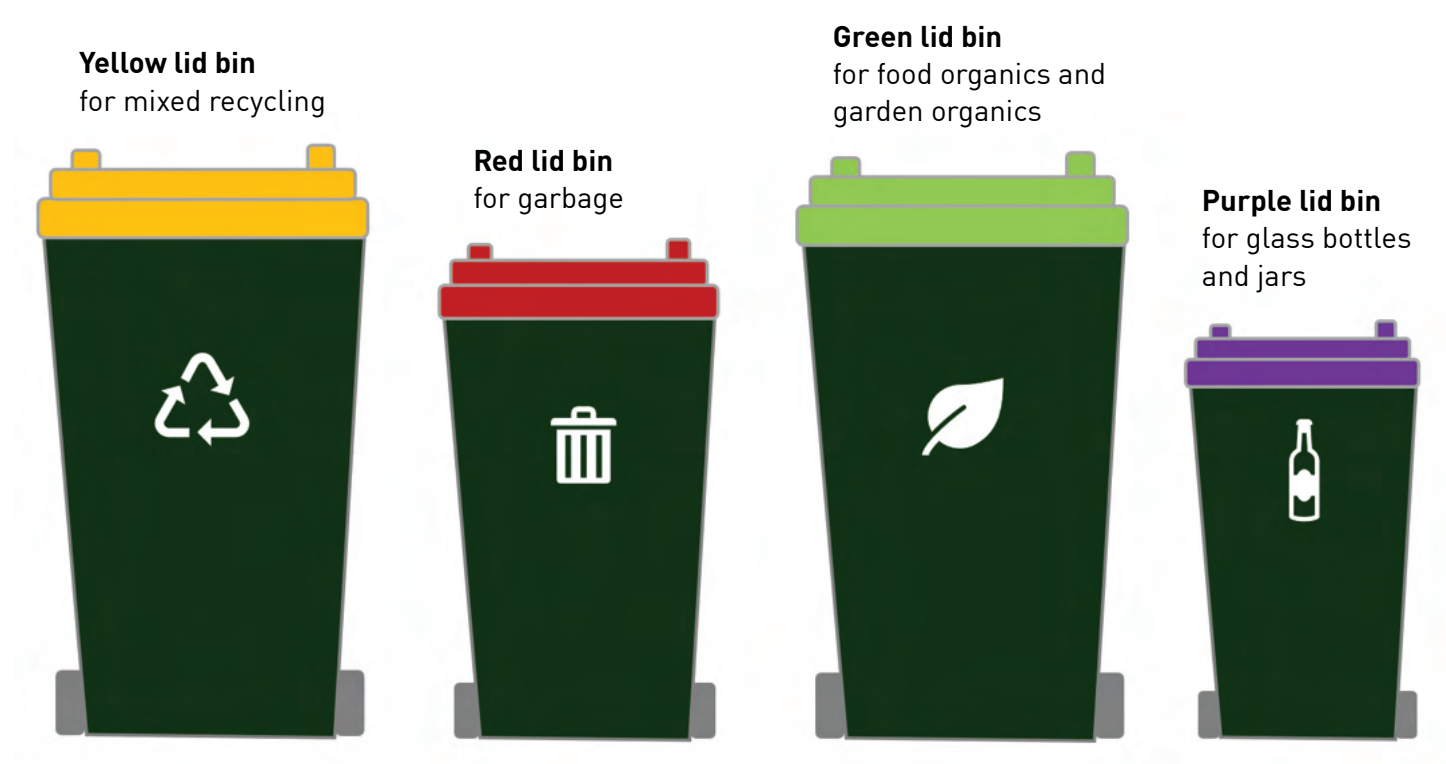
The four streams:

- Recycling option for plastics, paper, cardboard, and metals recycling
- Garbage option
- Combined Food Organics and Garden Organics (FOGO) option
- Recycling option for glass

How much will the future services cost?

An analysis into the costings of future services is yet to be undertaken. Changes to services will depend on a range of factors including frequency of bin collections, volumes of waste generated by the community, state government funding available and future gate fees for each waste stream.

The options eventually chosen for our future services will have a direct impact on the waste-related charges paid by ratepayers. The landfill levy, which is set by the state government and charges per tonne of waste sent to landfill, is set to increase from July 2021, regardless of any changes to our waste service. This means the more we can divert from landfill the lower the cost impact will be.

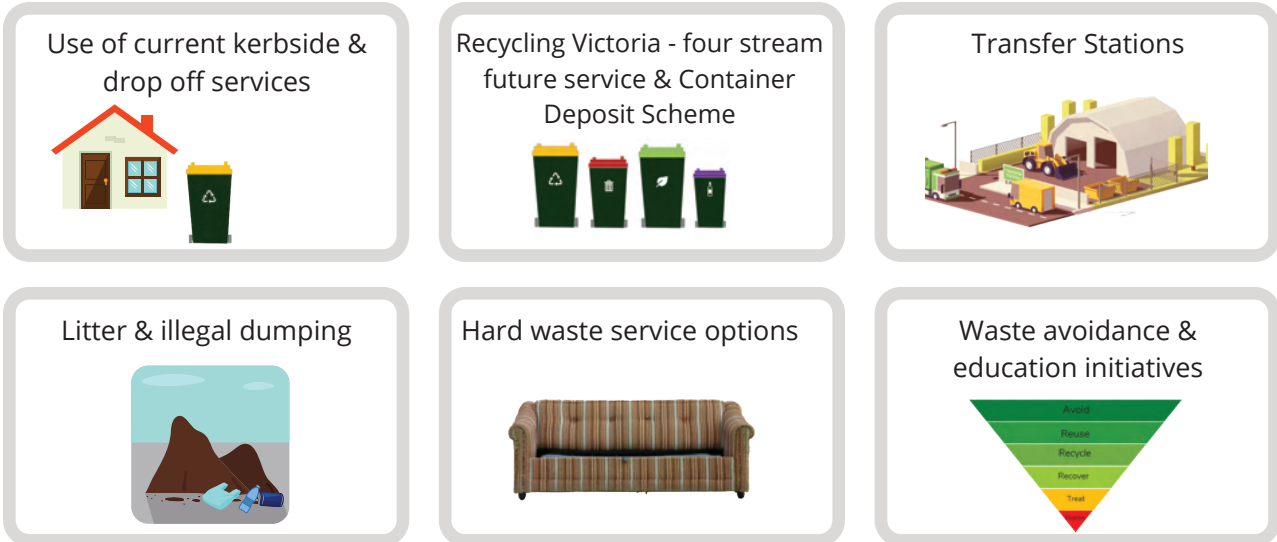


Community consultation

A detailed survey was open to residents and businesses to gather feedback regarding current and proposed waste services.

Moorabool's Have Your Say page hosted the online survey for 6 weeks in June / July 2021. A physical survey was posted to more than 4,000 households in the Shire – areas with historically low engagement rates with Council. The survey was promoted on the Shire's Facebook page, in the Moorabool News local paper, posters in local shops and to business owners.

The survey invited feedback on the six themes below:



69 online surveys completed
674 returned postal surveys
0 surveys completed by businesses
743 total responses



An in-person consultation session was held with the Moorabool Environment and Sustainability Advisory Committee (MESAC) on Monday 12 April 2021



An online community consultation session was held on Thursday 3 June 2021. The invitation was extended to 36 community members who'd previously expressed interest in waste and recycling matters. Eight community members participated on the workshop on the night.

What we heard

- Contributors considered waste management and resource recovery issues important to the Moorabool Shire.
- Introduction of mandated Recycling Victoria services generally supported - many residents would prefer kerbside bin option than use drop off facilities.
- Container Deposit Scheme - residents excited to earn funds for schools, community groups and reduce litter
- Transfer stations - feedback to review hours of operation / accept more materials / reduce costs for items at certain times of year. Great support for Resale Shops - as long as they worked in harmony with Op Shops. Northern/western residents utilise similar services in other shires due to proximity.
- Litter and dumped rubbish - residents would like to see more serious action taken against offenders
- Hard waste service must be equitable and accessible. Aging residents / those without a trailer, expressed challenges of dropping off hard waste to transfer stations / unfair to pay for a service they could not use.
- Strong support for home-based waste avoidance/reduction initiatives (composting, worm farms etc).
- Education, initiatives and new regulations or legislation would promote better practices.

Our commitment

Cost effectiveness and best value

The Shire will minimise the costs of future waste and resource recovery services through procurement of reputable and efficient service providers.

We will equitably price waste services through council rates notices to reflect the full costs and benefits of services. The more waste we can divert from landfill the better the cost outcome for all.

We will advocate for funding sources to implement mandated services and facility/operational upgrades.

Lead by example

While global, national and state forces determine much of how waste is managed, Moorabool can lead by example within our own operations by:

- Improving sustainable procurement policies.
- Minimising waste and single use plastics in our offices and during events.
- Streamlining services and collecting more robust data from contractors and suppliers.
- Supporting the circular economy by purchasing products with recycled content.



Access to services and better information

We will create new opportunities for the community and businesses to reduce, recover and/or safely dispose of waste.

Over the coming years, we will introduce more resource recovery options at our transfer stations and through our kerbside services. This will make it easier for our ratepayers to keep materials out of landfill and achieve our strategy's goals.

We will keep the community informed through transparent information on our website, through our online and in person networks and through targeted education programs and workshops.

Continuous improvement and innovation

We will look for local opportunities to collaborate with our community groups, residents, farmers, businesses, contractors, and suppliers that are driving innovation within the resource recovery space.

While the circular economy is a relatively new concept in Australia, we will look to state, federal and global innovations for guidance.

We will evaluate our performance regularly to ensure we're driving positive change and revise any actions to ensure relevance.

Our progress will be reported to Council and the community. It is vital to communicate our achievements to keep everyone motivated and on track.

The Strategy will undergo an interim review in 2026 and a full review in 2030.

Community engagement and participation

The development of our draft strategy has been informed by contributions from more than 700 residents through surveys and workshops.

The Shire will communicate the objectives of the strategy widely and maximise opportunities for community involvement. It is vital to harness the support of the community if we are to achieve our goals.

Have your say

Residents, community groups and businesses are welcomed to provide draft Strategy feedback for six weeks from February 2022 by visiting haveyoursay.moorabool.vic.gov.au

Strategic plan to 2030

VISION

To transform the Moorabool Shire into a low waste municipality by embracing sustainable practices that increase resource recovery, encourage a circular economy and protect the environment.

GOALS



AVOID

waste creation through education initiatives and improved management practices



RECOVER

more materials by viewing waste as a resource



PROTECT

our community and environment from the impact of waste

TARGETS & MEASURABLES

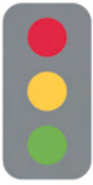
Performance against this strategy will be measured against high-level targets that reflect state and federal government targets. The measurables presented will be used to assess how the targets are tracking.

ACTIONS

Strategic actions have been developed to achieve the targets under each goal.

DELIVERY

Actions will be delivered during a single year (financial), a group of years, or on an ongoing basis as required.



Goal 1: AVOID waste creation through education and improved management practices

The best way to manage waste is to avoid creating it in the first place. As a community and Council, we need to reconsider our relationship with the products we use in our daily lives. We must embrace alternatives to single use items, make the most out of existing materials and adopt a culture of reuse. By reducing waste generation, we can future proof against the rising cost of landfill disposal and leave a lighter footprint on our planet.

Moorabool Shire Council will lead by example in waste minimisation pursuits by embedding sustainable practices within internal policies and operational activities. As a significant procurer of materials, the Shire will further explore how materials like glass, plastic and rubber can be utilised in capital works projects such as roads to reduce reliance on virgin resources. There is also scope to support the circular economy through procurement of everyday office items containing recycled content.

The Shire plays an important role in educating and supporting residents and businesses to seek

sustainable alternatives that are repairable, refillable, re-usable or biodegradable to avoid creating waste. Moorabool will advocate on behalf of the community for investment in new resource recovery infrastructure to enable opportunities such as resale shops, tool libraries and community gardens which not only save resources from landfill but also enhance community connection.

We'd also like to implement a rebate program for householders to access discounts on compost bins, worm farms and other products to empower residents to make a positive change every day. We're excited to work with, promote, and connect with organisations that are already driving innovation in the waste avoidance space.

And most importantly, we will develop an integrated education plan to enable the community to make the best of current and future waste streams.



Key directions

- Lead by example by practicing waste avoidance within council operations
- Develop policies and guidelines for staff and events to reduce single use plastic
- Deliver waste minimisation workshops to schools, businesses, and residents
- Explore local reuse opportunities for community benefit and resilience
- Introduce home waste reduction rebates for initiatives such as worm farms and composting
- Promote organisations that avoid, reduce, reuse, repair and recycle materials and connect them with the community

Goal 1 Actions

1	Prepare integrated Waste and Resource Recovery / Litter and Illegal Dumping Education Plan for delivery. To include: <ul style="list-style-type: none"> Waste avoidance behaviour change campaigns and programs for community groups, businesses, schools, real-estate agents Educational videos for website (what goes in your bins, composting / worm farms etc, Transfer Stations) Revegetation pilot program to promote 'pride of place' in identified illegal dumping hotspots through vegetation regeneration War on Waste pilot program for volunteering households to create community case study Circular Economy pilot program for businesses Support initiatives through our libraries, childcare centres and business networks 	2022
2	Investigate rebate program for home-based waste-reduction initiatives (worm farms, compost bins, reusable nappies)	2022
3	Establish waste generation baseline for Council buildings and operations	2022
4	Investigate feasibility of free / reduced cost green waste drop off in preparation for fire season.	2022
5	Support businesses to transition to the Single use plastics ban 2023	2022
6	Prepare waste management guidelines to assist residential and commercial development planning permit applicants	2023
7	Develop waste reduction and recycling guidelines for use by event organisers for their events	2023
8	Support and participate in regional and state waste avoidance and minimisation programs such as Love Food Hate Waste, Plastic Free July etc.	Ongoing
9	Advocate to state and federal governments for waste minimising design, manufacturing and packaging policy and legislation, and more product stewardship schemes.	Ongoing
10	Investigate supporting circular economy opportunities for local businesses via use of online waste trading platforms (e.g. ASPIRE and others)	2023

Targets to 2026	Targets to 2030	Measurables
	Community	
<ul style="list-style-type: none"> 72% all household waste diverted from landfill 	<ul style="list-style-type: none"> 80% all household waste diverted from landfill 	<ul style="list-style-type: none"> Total kilograms waste per household Outcomes of compositional kerbside stream audits
	Council operations	
<ul style="list-style-type: none"> 50% reduction of food organics sent to landfill Phase out unnecessary single use plastics 20% of waste reduction produced at council sponsored event 	<ul style="list-style-type: none"> 80% reduction of food organics sent to landfill 50% reduction of waste produced at council sponsored events 	<ul style="list-style-type: none"> Track outcomes against baseline / recycling rates / visual waste audits



Goal 2: RECOVER more materials by viewing waste as a resource

When it is not possible to avoid or reduce waste – the next best option is to recycle and recover as much as possible. To ensure we get most of the materials we use – we need accessible, convenient, and equitable resource recovery services. New services and technological innovations will play an important role in recovering more resources in the Moorabool Shire.

Moorabool Shire will introduce new glass and FOGO recycling services to households in the coming years which will significantly increase rates of resource recovery. Increasing recovery of organic waste also reduces greenhouse gas emissions and provides

feedstock for composting to rejuvenate soil. We will explore options to extend these services to business and community groups.

In 2023, the Container Deposit Scheme will be rolled out in Victoria which will have multifaceted benefits: litter reduction, raise funds for community groups and increase recycling. While Moorabool will not directly run the CDS we will provide support to local community groups to establish collection points.



Key directions

- Introduce Recycling Victoria's four stream waste and recycling system
- Explore new opportunities and technologies to recover waste locally
- Deliver targeted education programs to decrease recycling contamination and loss of recyclables to the garbage stream
- Review transfer station infrastructure to increase resource recovery streams
- Provide CDS support for sporting clubs and community groups
- Work with contractors to improve waste data collection to inform future programs
- Advocate on behalf of the community for increased options to recycle soft plastics in the Shire

Goal 2 Actions

11	Undertake options and cost analysis of mandated services (separate FOGO and Glass) to inform preferred options / timing / bin configurations and associated transition plan for implementation.	2022
12	Investigate the viability of options to assist ratepayers with hard waste disposal – e.g. hard-waste collection service or voucher disposal	2022
13	Review operational model of Transfer Stations. Explore social enterprise opportunities, resale / repair shop feasibility, increase resource recovery (FOGO, concrete, glass, gas bottles, furniture, clothing, soft plastic etc).	2022
14	Develop and implement waste education and behaviour change programs within Council buildings - e.g. food diversion, soft plastic recycling, single-use plastic avoidance	2022
15	Explore establishment of new, and enhancement of existing, community gardens to facilitate local green waste recovery through trials	2022
16	Identify gaps within existing CDS network and explore suitability of Council assets to ensure effective community access	2023
17	Engage with businesses and community groups to determine demand for council kerbside recycling services (commingled, glass and/or FOGO). Implement as appropriate.	2024*
18	Explore opportunities to partner with local farmers to trial food and garden waste composting solutions	2023
19	Promote community partnerships i.e. annual 'sustainability swap meets' – teamed with farmers market / local food vendors etc – support via SV funding or partnerships.	2024
20	Continue regular audit program and Bin It Right bin tagging program to analyse kerbside waste streams	Ongoing
21	Advocate for REDcycle to establish soft plastic recycling drop off points at schools and supermarkets	Ongoing

Targets to 2026	Targets to 2030	Measurables
	Community	
<ul style="list-style-type: none"> Reduce household recycling contamination rate to less than 15% and greenwaste to less than 3% 	<ul style="list-style-type: none"> Reduce household recycling contamination rate to less than 10% and stabilise greenwaste / FOGO at 3% 	<ul style="list-style-type: none"> Outcomes of education and bin inspection programs Contamination rates as per invoices from processor Outcomes of compositional kerbside stream audits
	Council operations	
<ul style="list-style-type: none"> 72% increase in recycling rate 	<ul style="list-style-type: none"> 80% increase in recycling rate 	<ul style="list-style-type: none"> Total kilograms recovered / landfilled



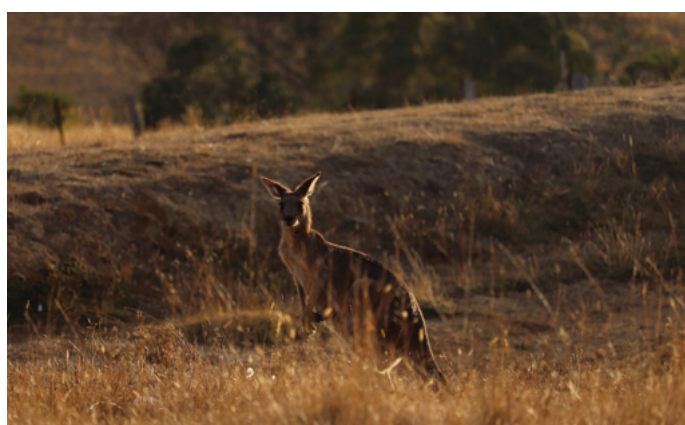
Goal 3: PROTECT our community and environment from impacts of waste

Moorabool has an obligation to deliver services and operate facilities in such a way that minimise environmental harm and demonstrate regulatory compliance. Litter and illegal dumping degrade environmental health, present public health and safety hazards, and costs the community money to clean up.

We currently monitor and track instances of dumped rubbish, but we can advance this work by exploring a united approach between neighbouring councils, the EPA and the community to achieve much more. Education campaigns that raise community

awareness of the impacts of litter on waterways and the greater environment will be a core focus to supplement this work.

Hazardous materials, such as household chemicals, cannot be disposed of in household bins or dropped off at transfer stations. Our role in this space will be to provide the community with the best possible information on appropriate disposal methods, and where possible, establish opportunities for these materials to be managed within our Shire.



Key directions

- Educate and empower the community to take action to protect the environment from litter and illegally dumped rubbish
- Support and coordinate community campaigns to reduce and clean up waste in our parks and waterways
- Improve the amenity of our streets, parks and public spaces
- Commence annual Detox Your Home day for household chemical waste
- Undertake effective and proactive management of litter and graffiti

Goal 3 Actions

22	Advocate for funding opportunities for deterrents and/or surveillance equipment at identified illegal dumping hotspots to better enable enforcement.	2022
23	Investigate feasibility of discount Transfer Station drop months for tyres / mattresses ie regularly dumped items	2022
24	Facilitate annual Detox Your Home day in partnership with Sustainability Victoria for the safe disposal of unwanted household chemicals	2022
25	Explore opportunities to collaborate with neighbouring and aligned councils to prevent and/or mitigate illegal waste activities	2024
26	Continue monitoring illegal dumping hotspots and providing rapid clean up response	Ongoing
27	Partner with local stakeholders to reduce and prevent littering and illegal dumping across the municipality - e.g. Clean up Australia Day	Ongoing

Targets to 2026	Targets to 2030	Measurables
	Community	
<ul style="list-style-type: none"> Reduce the rate of increase in the number of dumped rubbish requests by 15% 	<ul style="list-style-type: none"> Reduce overall amount of illegal dumped rubbish requests by 15% 	<ul style="list-style-type: none"> Community satisfaction survey results Number of dumped rubbish requests

Have your say

Residents, community members and businesses are invited to provide feedback on this Draft Strategy on Moorabool's Have Your Say / engagement hub.

Feedback received will be reviewed and used to shape the final strategy.

Provide your feedback here: <https://moorabool.engagementhub.com.au/waste>

The final Strategy will be presented to Councilors and once endorsed, will become operational by June 2022.





Moorabool Shire Council

Ballan
15 Stead Street, Ballan
Victoria 3342

Darley
Civic Community Hub
182 Halletts Way, Darley
Victoria 3340

Bacchus Marsh
Lerderderg Library Customer Service
215 Main Street, Bacchus Marsh
Victoria 3340



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