



valuing our resources

Murrindindi Shire Council  
**Waste and Resource Recovery  
Strategy 2014-2019**

Adopted by Council on 23 July 2014





## Contents

Executive summary .....	2
1 Our vision.....	3
2 Scope .....	3
3 Introduction .....	3
4 Murrindindi Shire profile .....	5
5 Policy context.....	6
6 Goals and targets .....	7
7 Process for developing this strategy .....	8
8 Council services, programs and activities .....	9
9 Fees and charges .....	13
10 Current waste behaviour .....	14
11 Challenges and opportunities.....	15
12 Priorities over the next 5 years.....	16
13 Murrindindi Shire Council Waste and Resource Recovery Implementation Plan .....	18
14 Large print available.....	24
15 Glossary .....	24
16 Bibliography .....	24

## Executive summary

The Waste and Resource Recovery Strategy aims to provide guidance to Council in the management of waste services and to provide a framework of priorities for improving the efforts made by Council and the community to divert waste from landfill and improve recycling practices.

The objectives of the Waste and Resource Recovery Strategy are:

- Reduce the quantities of waste sent to landfill.
- Increase the amount of waste diverted for recycling or reuse.
- Reduce the amount of litter and dumped rubbish and improve waste and recycling infrastructure in public places.
- Promote waste minimisation initiatives within our community.
- Structure and deliver services which reduce waste to landfill and improve our environment.

The WRRS sets out a vision and principles for waste and resource management within the Shire.

It also sets out a number of strategies and actions for implementation to achieve the vision. The actions have been prioritised for delivery over the life of the WRRS covering the five year period 2014 to 2019.

Council will work with all sectors of our community to achieve this vision.

# 1. Our vision

***Murrindindi Shire Council provides equitable waste management and resource recovery services and infrastructure that prioritise and facilitate waste minimisation, resource re-use and recovery over disposal.***

## 2. Scope

The Waste and Resource Recovery Strategy (WRRS) provides Council with the strategic direction to develop and deliver waste and resource recovery services that help the community to minimise waste and maximise the diversion of waste from landfill. It looks at the external influences on waste management services provided by Council, and identifies challenges and opportunities to improve service levels in a cost effective manner.

The WRRS incorporates an Implementation Plan that articulates a vision for the future of waste and resource recovery in the Shire of Murrindindi, and sets goals, strategies and actions to achieve that vision.

The WRRS covers a 5 year timeframe from 2014-2019, with the Implementation Plan to be reviewed annually to ensure currency of proposed actions and track progress.

## 3. Introduction

The development of this WRRS is timely to respond to significant changes occurring in the waste management field. The most obvious change that has occurred relates to the price of waste disposal, which has increased steadily in recent years. This is a result of State Government strategies aimed at driving higher levels of recycling and reducing the environmental impact of landfill operations. Other substantial drivers of change in the waste sector include more stringent environmental and occupational health and safety regulations and renewed government focus on waste as a priority environmental issue.

Council needs to facilitate an approach to waste management that minimises the volume of waste going to the Alexandra Landfill by providing every possible opportunity for Council, residents and the local business community to reduce overall waste generation and divert recyclable materials away from landfill.

Increasing the recycling and re-use of waste materials reduces cost, resource consumption and environmental impact.

### What is “waste and resource recovery”?

Waste and resource recovery is an essential service that manages materials disposed of by all sectors of the community. Proper management of waste is essential to protecting the health and amenity of our communities and environment. Resource recovery is a key part of waste management that provides further environmental and economic benefits, in particular responding to global issues such as resource depletion and climate change.

### Why does Council manage waste?

Under the Australian Constitution, State and Territory governments are primarily responsible for managing waste. The *Environment Protection Act 1970* establishes the EPA and its responsibilities for regulation of landfills, waste transport, alternative resource recovery facilities and litter. Council pays levies for all waste disposed to landfill, which the State uses to fund programs, including regional waste and resource recovery groups.

Other State legislation dictates Council's obligations around waste management. The *Local Government Act 1989* requires Council to plan for and provide services and facilities for the local community. The *Public Health and Wellbeing Act 2008* requires Council to maintain municipal districts in a clean and sanitary condition.

## 3. Introduction CONTINUED

### The principles of waste management

Waste management measures are prioritised in accordance with what is universally known as the waste management hierarchy. The waste hierarchy is enshrined in the *Environment Protection Act 1970 (EP Act)*. In undertaking to manage waste in accordance with the waste management hierarchy, Council seeks to achieve optimal environmental outcomes.

#### Most environmentally preferable



Figure 1: Waste management hierarchy

The waste management hierarchy dictates an order of preference for undertaking action to manage waste so that those actions with the least environmental impact are preferred.

- Avoidance – avoid generating waste or generate less waste doing the same activity. For example using re-usable instead of disposable cups and shopping bags.
- Reduce – generate less waste doing the same activity. For example choosing materials with less packaging.
- Re-use and repurpose – re-use a product for the

same purpose it was created for, or re-purpose the product for a different use. For example fixing up an old bicycle, or turning discarded metals into sculpture.

- Recycle – materials are reprocessed to create a new product. For example PET plastic bottles recycled into fleece textile.
- Recover – materials that are difficult to recycle are burned to recover the calorific value. For example controlled burning of tyres to generate heat for an industrial process.
- Dispose – as a final resort, materials can be disposed to landfill, with some requiring treatment prior to disposal. For example chemically solidifying paint before disposal to landfill.

The challenge for Council is to ensure that the waste management services provided meet the needs of our community and enable residents to reduce the amount of material disposed to the waste stream and achieve the best possible environmental outcomes.

A further set of principles are also enshrined in the *EP Act* and must be considered by State and regional agencies as well as local government in decision making around waste infrastructure and services. These principles are:

- intergenerational equity
- integration of economic, social and environmental considerations
- transparent and informative decision making
- evidence based decision making
- integrated waste and resource recovery management
- proportionate and appropriate government intervention.



## 4. Murrindindi Shire profile

Residents and visitors of Murrindindi Shire value its rural spaces and relaxed atmosphere, the clean air, the sense of community and the wonderful natural environment. Our community enjoys the opportunities for sustainable lifestyles provided by the natural environment. Our residents live in towns and rural agricultural settings. Agriculture, education, health and aged care, tourism, aquaculture, forestry, retail, outdoor education and public service are the major industries within our shire.

Our shire is close to Melbourne, but its mountainous borders create a sense of separation. The population density of the shire is relatively low, and rather than a single large town, the shire is characterised by a scattering of towns, villages and rural outposts.

Our residents value creating new from old, efficiency in resource consumption and minimising the waste generated to maximise value for money and benefit to the environment. Our community are well informed and believe recycling is very important and prefer not to contaminate recyclables with general waste or send them to landfill.

### **Local population characteristics and residential properties (households)**

Murrindindi has a small population in a large and diverse

Shire. In 2013 our population was estimated at 13,494, of whom more than 80% were born in Australia. Other common countries of birth include England 4.2 %, New Zealand 1.1 %, Germany 0.7 %, Scotland 0.6 % and Netherlands 0.6 %.

We have an aging population, with our largest proportion of people (31.6 per cent) aged between 45 and 64. The percentage of those aged over 65 is expected to rise from 18.6 per cent in 2010 to 23.6 per cent in 2021, compared to the overall Victorian anticipated increase from 13.7 per cent to 20.2 per cent. This may represent challenges in maintaining equitability of access to waste services.

Within our Shire there is a strong workforce with around 54 per cent employed full time, 34 per cent employed part-time and 4.8 per cent unemployed which is below the state average for unemployment.

Murrindindi Shire Council serves 4,447 residential properties (including rural residential), 2,323 farms with one or more residences, and 609 commercial and industrial buildings. Approximately 80% of these tenements receive kerbside waste collection service, while the remaining 20% take their waste to resource recovery centres (RRCs) or manage it in other ways.

## 5. Policy context

The *Council Plan 2013-17* establishes Council's goal to manage our natural and built environment in a responsible manner, and to use resources more efficiently and effectively. Under the theme of "Our Environment" Council has committed to preparing a waste management strategy that promotes waste minimisation and increases opportunities for recycling and re-use of resources.

The WRRS will complement Council's *Environment Strategy 2010-2015*, which will be updated in 2014-15. At that time any duplication of actions described in the WRRS will be removed from the Environment Strategy.

*Getting Full Value: Victoria's Waste and Resource Recovery Policy (Getting Full Value)* sets the 30 year vision for Victorian waste management and resource recovery. The policy envisions waste management as an essential community service that protects our health and environment and maximises the value of resources.

Regional and Council waste and resource recovery infrastructure plans must align with this State policy and the forthcoming *State Waste and Resource Recovery Infrastructure Plan (SWRRIP)*. Regional waste and resource recovery groups and Councils are required to perform their waste management functions consistently with the SWRRIP.

Murrindindi Shire Council is a member of the Goulburn Valley Waste and Resource Recovery Group (GVWRRG), which has been formed under a recent amendment to the *EP Act*. The GVWRRG comprises 6 member Councils including Murrindindi, Mitchell, Strathbogie, Campaspe and Moira Shires as well as the City of Greater Shepparton.

The objectives and functions of the GVWRRG are:

- Plan for the future needs of waste and resource recovery infrastructure consistently with the SWRRIP, including development of a Regional Waste and Resource Recovery Implementation Plans (RWRRIP).

- Facilitate efficient procurement, including collective procurement, of waste and resource recovery infrastructure and services.
- Integrate the collective knowledge and needs of its region into State-wide waste and resource recovery education and market development programs and to facilitate the delivery of those education programs.
- Provide support and advice to local government members including facilitation of the Local Government Waste Forum.
- Undertake waste and resource recovery projects as funded by government, councils and other organisations.

In seeking to achieve its objectives and functions, the GVWRRG must collaborate with councils, Sustainability Victoria, the EPA, industry, business and the community.

The Goulburn Valley Waste and Resource Recovery Region Local Government Forum will be a conduit for consultation between the GVWRRG and local governments, and for advice to the GVWRRG board on matters and issues affecting the role of local governments in waste management and resource recovery.

Benefits to Murrindindi Shire Council of being a member of the GVWRRG include collaboration and information sharing, collective buying power, regional education and participation in other waste and resource recovery projects funded by State government.

At a federal level, there is a National Waste Policy, which focuses on reporting and product stewardship, and has resulted in highly successful programs such as the National Packaging Covenant and the Television and Computer Recycling Scheme, as well as the forthcoming Tyre Product Stewardship Scheme.



## 6. Goals and targets

*Getting Full Value* sets goals for waste management in Victoria. These are:

- Assist Victorians to reduce waste generation and achieve financial savings through efficient resource use.
- Facilitate strong markets for recovered resources.
- Facilitate a Victorian waste and resource recovery system that maximises the economic value of waste.
- Reform and strengthen institutions and governance to effectively drive the achievement of waste and resource recovery policy.
- Reduce the environmental and public health risks of waste.
- Reduce illegal dumping and littering.

Specific measurables for *Getting Full Value* goals and strategies are proposed to be developed as part of the state-wide infrastructure plan. Corresponding metropolitan and regional waste and resource recovery plans will reflect these goals and articulate specific targets for waste diversion and resource recovery. Council's WRRS will be updated to reflect those specific measurables at a future annual review.

In accordance with our vision for waste and resource recovery in the shire, we will seek to achieve the following goals by implementing the strategies and actions established in this strategy:

- The community understands why waste

avoidance, re-use and recycling are important, and demonstrate best practice waste and resource recovery behaviour.

- Waste management infrastructure and operations approach best practice through a process of continuous improvement.
- Kerbside waste and recycling services are provided across the shire in an efficient, reliable and sustainable way.
- The community has the opportunity to dispose of waste and recyclables in public places and at public events.
- The provision of waste services is equitable and accessible to all members of our community.
- Council operations demonstrate good waste management practices to the community.

The Murrindindi Shire Council Plan 2013-2017 sets a whole of community landfill waste diversion of 35%. This strategy, which extends beyond the duration of the current Council Plan, sets a target of 45% diversion from landfill by June 2019.

The rate of diversion from landfill is a standard measure of performance of waste services, and is a measure of the mass of material diverted from the waste stream for recycling against the total mass of waste generated throughout the shire. The average monthly landfill diversion rate in the twelve months to April 2014 was 39%.

## 7. Process for developing this strategy

In developing this strategy, preliminary work included on-ground assessment of the current situation and a desktop study of various state and regional level strategies and reports.

Input from the community was important to ensure the delivery of our waste programs were aligned to community expectations. Feedback from the community also provides Council with valuable information to assist in improving and refocusing the delivery of services and waste minimisation programs. Figure 2 summarises the process taken to develop this strategy.

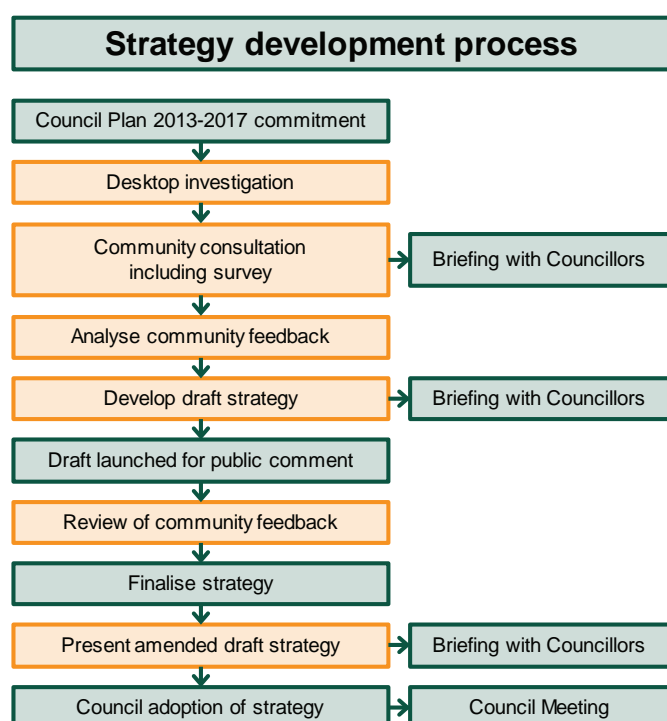


Figure 2: Strategy development process

A community survey was developed using existing and potential new services as the themes, and enhanced by discussions about the direction of waste management into the future with various groups and agencies. Feedback from the community consultation has been used to develop strategies and actions for achieving the waste and resource recovery vision outlined in this strategy.

### Survey results

In all, 304 completed surveys were received, some clear direction and specifically requested actions were indicated by the community through the consultation.

#### Kerbside services

- 58% of respondents without a kerbside service would take up a service if it was available.
- 84% of recipients of kerbside collections are satisfied with the service they receive, while only 4% are dissatisfied.
- 98% believe recycling of household and business waste is important, and 88% will recycle even if it requires additional effort.
- 93% of respondents understand what items can be placed in kerbside recycling bins but only 23% really trust that what they place in their recycling bin is actually recycled.
- While 67% of respondents rejected paying additional rates to implement a kerbside hard waste collection, 27% indicated support for a user pays system.

#### Resource recovery centres (RRC)

- The results indicated that respondents are unlikely to travel to any other RRC than their local one, and are generally happy with the opening hours, if anything requesting more opening hours during the week.
- 37% of respondents suggested improvements to the RRCs to increase the capacity to recycle commingled materials.
- 76% of respondents support direct re-use of materials at RRCs, with 66% indicating they would purchase materials through a 're-use shop'.
- 85% of respondents indicated they would pay a small fee for higher quality mulch.
- 68% of people prefer to pay by cash, and 37% by EFT.

#### Public place waste management

- 90% of respondents were satisfied with litter bin services, and 93% indicated that they felt public place recycling was very or fairly important.
- 96% of people would like to see recycling at public events in the shire, and 99% would do the right thing if the infrastructure were available.

#### Costs

- 78% of respondents agreed that generators of waste should bear the cost of recycling or disposal.

Further detail of the results of the 2014 waste management survey will be made available on Council's website.



## 8. Council services, programs and activities

Waste management is a core and essential service provided by local government to the community. Key services include the kerbside collection of garbage and recyclables, the operation of five Resource Recovery Centres (RRCs, formerly known as transfer stations), the operation of the Alexandra Landfill for disposal of residual waste, street cleaning including street litter bins, and waste education.

Waste services are funded by the Municipal Waste Charge and income derived from the operation of the Alexandra Landfill and RRCs.

### Waste education

Part of Council's responsibilities as the provider of a range of waste services is to educate the users of those services. This involves promoting the services and facilities that are available, and how to make the best and most efficient use of these to safely dispose of waste, divert materials for recycling and to minimise their own and Council's costs. Council does this through a range of media: primarily our website, but also advertising in the print and radio media, hard copy promotional material and our waste services staff located in the office and out at the RRC and Alexandra Landfill sites.

Council promotes the programs of other organisations where they relate to waste management, including the specific recycling programs that are hosted at our facilities, such as the Drop Zone e-waste recycling program, as well as those out in the community, such as Clean Up Australia Day.

There is significant scope to expand the range of waste education activities and formats to further improve the community's understanding of appropriate waste and resource recovery practices, including delivering

education to youth groups and schools. The ability to deliver on this is limited by the resources available, and Council will continue to rely on State approved regional campaigns including Back to Earth (targeting household organics), Get It Right On Bin Night (targeting recycling contamination) and Resource Smart Aussie Vic School Program (targets a range of environmental initiatives including waste).

### Municipal kerbside collections

Council currently provides a kerbside garbage and recycling collection to around 80% of households and businesses within the municipality, totalling just over 6,000 services. The Municipal Waste Charge is compulsory for all occupied properties within townships (the Compulsory Waste Charge Zone), and a kerbside collection is provided to these properties. Kerbside collections are optional for rural areas along the garbage route. Some parts of the shire are not currently serviced with kerbside collections.

The current kerbside service offers weekly collection of a 120L mobile garbage bin (MGB) and fortnightly collection of a 240L mobile recycling bin (MRB). Each service is funded by the Municipal Waste Charge.

The kerbside collection service is delivered via contractor under a service contract, and the recyclable materials collected are processed in Melbourne under a different contract. It will be possible to make alterations to both contracts at the time of re-tendering. Currently Council pays for transport of recyclables to Melbourne; however commingled recyclables are processed at no cost to Council. Recent shifts in the market have created a potential for Council to derive a small income stream from commingled recyclables that may partially offset the cost of transport.



## Council services, programs and activities CONTINUED

In 2012-13, over 3,700 tonnes of waste were collected at the kerbside, with 41.5% of the waste diverted to a recyclables processing facility in Melbourne, and the remainder sent to the Alexandra landfill for disposal.

Recent trends in municipal kerbside collection services in Victoria include alterations to the volume and frequency of collection for MGBs, introduction of kerbside organics services and a new income stream from commingled recyclables. These trends are opportunities for Murrindindi Shire Council to approach a best practice kerbside collection service.

### Commercial kerbside collections

As part of the municipal kerbside collection service, Council provides pay-per-use commercial kerbside garbage and recycling collections for local businesses. This service offers commercial businesses 240L MGB or 240L MRB, and users of the service are invoiced for the number of times the bins are put out for collection.

This service is not heavily subscribed, currently providing waste collection services to around 60 businesses, and a recycling service to only one business. This is the only commercial wheelie bin service operating within the shire, and has the capacity to expand, with significant scope for increasing the uptake of recycling services by businesses.

### Resource recovery centres

Council currently operates five RRCs, located at Marysville, Kinglake West, Yea, Eildon and Alexandra. All sites except Marysville are located on former landfill sites away from town centres. The sites are open for the same number of hours, although on different regimes during the week, and they have widely varying levels of use, with Alexandra and Kinglake West receiving the highest

volumes of materials.

The sites provide opportunity for the separation of specific streams of materials, which are mostly diverted to Melbourne for processing, except green waste which is processed into mulch on site. Approximately 2,000 tonnes of materials are transported from the RRCs for recycling or energy recovery each year, including:

- commingled recyclables
- metals
- white goods
- automotive batteries
- waste motor oil
- drum-muster containers
- tyres
- fluorescent lamps
- mattresses (all sites except Marysville)
- couches (all sites except Marysville)
- televisions and computers (Alexandra only).

Council engages a contractor several times a year to process the approximately 600 tonnes of green waste received annually, with the resulting mulch available for the public free of charge. At regular times of the year Council offers green waste amnesties timed to coincide with the burn-off amnesties, and host occasional mulch loading days to clear stockpiles of mulched material.

All materials not processed on site or sent out of the shire to be recycled are sent to the Alexandra Landfill for disposal (approximately 2,500 tonnes per year).

There are currently some materials going to landfill that could be recycled. Some of these could be diverted for processing on site at the RRCs, such as untreated



## Council services, programs and activities CONTINUED

construction timber and concrete. Other materials could be diverted for processing elsewhere, such as household batteries and silage wrap.

It is possible to substantially increase the percentage of material diverted from landfill by making alterations to the operation and infrastructure at the RRCs. In particular it is possible to make re-usable materials available for the public, and to add additional streams of recycling for materials currently going to landfill. Increased efficiency in the operation of the RRCs could be realised through a review of hours of operation, waste transportation arrangements, staffing and plant levels and improvements to infrastructure.

### Alexandra Landfill

The Alexandra Landfill was opened in 1997 to provide a waste disposal service to the Murrindindi community. The landfill is licensed by the EPA and must be operated in compliance with those licence conditions. The licence requires the landfill to be constructed and rehabilitated to stringent standards for the protection of the environment, with a thorough program of environmental monitoring and auditing.

The landfill uses a “gully fill” method, incorporating two gullies. At present the first gully is developed, and has five cells constructed to different standards, reflecting the licence conditions of the day. The current cells are estimated to have 6 years of filling space remaining at the current rate of waste deposition. The second gully is undeveloped, and is estimated to have 15 years of filling space available in the current design.

The development of a capital improvement plan for the landfill is a necessary step toward development of a cost model for the landfill across the lifetime of its operation. This can be used to make strategic decisions about

how the landfill can best be managed to maximise its economic opportunity while limiting its liability.

### Event waste collections

The provision of garbage and recycling bins to events occurring in the shire is delivered via the kerbside garbage service contractor. Bins are provided with event bin caps to assist the public to identify and use the correct bin. This service is used regularly throughout the year, however not all events use the service, and many events in the shire boundaries do not currently incorporate recycling, including some major events.

There is opportunity to undertake further work directly with event managers to increase the uptake of recycling at events, and to expand on the type of service offered by Council for major event waste management.

### Hard waste disposal

Council currently provide waste disposal service at RRCs in lieu of kerbside hard waste collections. The last time Council offered a kerbside service was in 2004, when the service was rolled out across the western half of the shire only due to the significant cost of the labour and plant involved. More recently Council was able to offer free disposal of hard waste from residential sources at the RRCs through the Bushfire Community Assistance Gift Funding, which specifically allocated funds for free hard waste disposal and free green waste disposal in 2010.

Providing hard waste disposal only at fixed locations provides challenges for some sectors of our community, in particular for the disabled and the growing portion of elderly people. A service is available via the Council’s Home and Community Care program for eligible pensioners to have waste transported to the RRCs, however this is not universally available to those sectors



## Council services, programs and activities CONTINUED

of our community without facility to transport hard waste to RRCs.

There remains the potential to reduce the burden of hard waste disposal for some target sectors of the community. This could include development of a user pays system of hard waste collection. Challenges to be overcome would be costs, distance to disposal, separation of re-usable and recyclable materials and OHS issues. This could be considered as part of a review of RRC operations, and presents a fundraising opportunity for community groups.

### Management of organic waste

“Organics” includes green or garden waste and food waste. These two streams have very different characteristics, presenting challenges to effective management of both streams. In Murrindindi Shire, Council recycles green waste at our RRCs, and much of the community recycle their kitchen and food organics through home composting and feeding pets. However the kerbside service remains a significant method of disposal of organics for many residents, with food and garden organics accounting for an average of 38.5% of the waste mass in our kerbside garbage bins.

Over recent years there has been a shift in the way councils manage organic waste. A third bin for kerbside organics collection is now standard in most metropolitan councils and increasingly common in rural shires. Some services collect only garden organics, while others collect kitchen and garden organics which can impact on the required frequency of collection. A kerbside organics service is often accompanied by changes to the volume and frequency of collection of kerbside waste services.

The State waste management policy, *Getting Full Value*, places emphasis on the diversion of organics from the

landfill stream, and flags the development of a state-wide organics strategy, and a potential future adjustment to landfill levy rate for untreated organic materials. These developments will provide an impetus for Council to adopt best practice organics management.

### Litter and public place waste management

Public place waste services include management of street litter bins and general litter management throughout the shire, including street sweeping, litter trap cleaning, and management of illegally dumped materials on Council land and Council managed roadsides. Council managed litter bins are located in township shopping strips and public parks. All bins provided are currently cleared by Council staff and the waste disposed at the RRCs.

Management of litter in public places is essential to maintaining the general amenity of our shire, and protection of our environment. Management of litter requires both incentives for people to do the right thing by providing suitable infrastructure, services and education, and also a regulatory approach for illegal littering and dumping with enforceable penalties. The most visible public place waste management service is public litter bins. An opportunity exists for Council to demonstrate its commitment to recycling by introducing a trial of public place recycling.

The Victorian Litter Strategy provides guidance on the level of support that the State will provide to local government to assist with litter, and it is anticipated that a Regional Litter Strategy will be re-established in the near future. Council will align future actions with the opportunities offered by these strategies.

## 9. Fees and charges

### Financials of waste and resource recovery

The waste services budget is self-supporting and is funded only via the following waste fees and charges:

- Municipal Waste Charge, paid by ratepayers with a kerbside collection service
- RRC and landfill gate fees
- fees from event and commercial bin services
- sale of high value recyclable materials such as metals collected at RRCs.

Income from all sources in 2012-13 was \$2.9 million.

There is no subsidisation of waste services by the general municipal rate.

Costs to Council relating to waste and resource recovery include:

- kerbside collection services
- street sweeping and public litter bin collection
- RRC operation, including site management and maintenance, transport of general waste to Alexandra Landfill, and transport of materials to be recycled
- Alexandra Landfill development, operation, maintenance and licence compliance
- Landfill Levy
- EPA Financial Assurance
- administrative expenditure, including strategic planning projects, payroll, printing, and advertising.

Expenditure on waste operations in 2012-13 was \$2.1 million, comprising 6.4% of Council's annual operational budget.

#### Landfill capital works

The difference between income and expense is transferred to the Waste Reserve, which funds waste related capital works, in particular the further development and rehabilitation of the Alexandra Landfill. Expenditure on capital improvements at the Alexandra Landfill is expected to increase significantly over the next 10 years as construction of essential infrastructure and rehabilitation occurs.

It is predicted that \$14.3 million dollars will need to be spent between 2014 and 2036 to develop additional leachate ponds and future cells, and for capping, rehabilitation and aftercare.

#### Landfill levy

The State Government charges a landfill levy for each tonne of municipal or industrial waste deposited to landfill. Funds derived from the landfill levy are used in part to finance efforts by government, industry and the community to reduce waste. Landfill levies create an incentive for waste generators to investigate ways to reduce the amount of waste they generate and dispose of to landfill.

It is the State Government's intention that high landfill levies act as a market signal to provide incentive to resource recovery industries and provide an incentive for all Victorians to divert waste to recycling. "Getting Full Value" commits to continued use of the landfill levy in this way.

Accordingly, since 2008-09 the levy for municipal waste has increased over 400% from \$7.00 to \$29.30 per tonne, and the rate for industrial waste has increased 700% to \$51.30 per tonne. Further increases have been proposed to be limited to CPI adjustments for at least 10 years, although "Getting Full Value" allows the state to introduce a differential levy on target materials sent to landfill, such as untreated organic waste.

#### EPA Financial Assurance

Provision is made for protecting the environment into the future by the maintenance of a Waste Reserve, a fund designated as Financial Assurance for environmental management costs incurred during the operation, closure, rehabilitation and aftercare of a landfill. Council holds this Waste Reserve in lieu of a financial assurance to demonstrate capacity to rehabilitate the landfill to the EPA. The Waste Reserve operates to fund all waste infrastructure in the Shire.

### Waste fees and charges

Waste fees and charges include the gate fees for the Alexandra Landfill and RRCs, and the Municipal Waste Charge. These fees and charges are revised annually as part of Council's budget setting process. When setting specific fees for the disposal or recycling of waste, Council seeks to recover all current costs and future liabilities associated with the operation and maintenance of waste services and infrastructure, including future landfill rehabilitation and aftercare.

#### Municipal Waste Charge

The Municipal Waste Charge is collected through the rates and covers the cost of the kerbside collection service, and subsidises the operation of the RRCs and the Alexandra Landfill. The charge is only paid by those ratepayers who have a kerbside service, including those whose properties are located inside the Compulsory Waste Charge Zone, and those who voluntarily take on the kerbside service. There is a level of inequity in the way the Municipal Waste Charge is applied, since all residents can make use of the RRCs and landfill whose operations are subsidised by only a (major) portion of the ratepayers.

#### Alexandra Landfill and RRC tipping fees

Where the cost for an item is clear cut, such as the cost to recycle a mattress, then this cost is passed through with a minimal premium applied to cover administrative costs. Where Council makes an income on a recyclable material, such as automotive batteries, no charge is applied.

## 10. Current waste behaviour

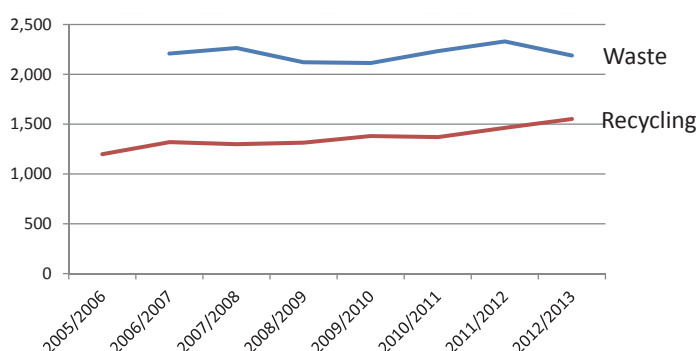
Waste is generated by all sectors of our community. Choices around consumption can determine quantities and types of waste generated, while community behaviour in partnership with infrastructure and services provided determines how much is recycled.

In 2012-13 approximately 11,500 tonnes of waste were sent to the Alexandra Landfill for disposal, with a third of that deriving from businesses activities and the remainder from residential and municipal activities. The table below provides a snapshot of waste generation and recycling in Murrindindi Shire.

**Table 1: Waste volumes generated and recycled 2011-12 and 2012-13**

Source		2011-12 (tonnes)	2012-13 (tonnes)
Kerbside (municipal)	Refuse	2,330	2,188
	Recyclables	1,462	1,551
	Total waste	3,792	3,739
	Recycling rate (%)	<b>39%</b>	<b>42%</b>
Resource Recovery Centre	Refuse (municipal)	2,589	2,042
	Refuse (commercial)	846	443
	Recyclables	2,708	2,448
	Total waste	6,144	4,933
	Recycling rate (%)	<b>44%</b>	<b>50%</b>
Landfill - direct dumping (commercial)	Refuse	1,871	3,680
Total waste to landfill		7,636	8,353
Total recyclables collected		4,170	4,000
% Landfill diversion		<b>35%</b>	<b>33%</b>

The graph below demonstrates that over the past 8 years the volume of waste generated at the kerbside has remained relatively steady while volumes of recyclables have increased by 29%.



**Figure 3: Kerbside garbage generation versus kerbside garbage generation from 2006 to 2013**

In 2012-13 kerbside collections, Council collected 2,188 tonnes of general waste, and 1,551 tonnes of commingled recyclable materials. The average weight of garbage disposed in a household garbage bin is 9.3 kg per household per week.

Figure 3 shows data from a bin audit undertaken in October 2013, which demonstrates that as much as 54% of material placed in kerbside general waste bins could be diverted from landfill: 16% is recyclable, while 39% is organic food or garden material. This represents a significant opportunity to divert material from landfill.



**Figure 4: Typical composition of waste found in Murrindindi Shire residential general waste bin (2013 audit)**



## 11. Challenges and opportunities

In developing this strategy, consideration has been given to some key challenges and opportunities which are highlighted for their influence over the nature and cost of waste services. Challenges and opportunities can often arise from similar influences, including geographical, technological and external influences.

Our waste management and resource recovery challenges are:

- the cost impact of providing waste services to our dispersed, low density and remote communities and transporting small volumes of waste over long distances within the Shire
- the impact of the distance to resource recovery infrastructure in Melbourne from Murrindindi
- seasonal fluctuation in waste volumes as a result of regional tourist attractions such as Lake Eildon
- attracting mobile service providers to cost effectively process the low volumes of recyclable waste generated at the RRCs
- improving our RRC infrastructure to best practice to facilitate maximum diversion of waste from landfill and minimum cost to customers
- reducing waste to landfill reduces landfill income and increases the unit cost of disposal
- the small scale of our existing landfill and planning for waste disposal beyond the current 20 year lifespan of the site
- future cost liabilities resulting from the operation of the Alexandra Landfill and potential liabilities

relating to rehabilitation of historical landfill sites

- approaching and maintaining best practice waste services in an affordable way, given the constrained resources of a rural shire
- clarity and equity in the setting of waste fees and charges.

Opportunities which exist that can be advantageous to Council in delivering waste and resource recovery services include:

- renewed state level focus on waste management as a priority environmental issue, and the resulting policy clarity and increased level of program support and funding
- a refresh of the regional waste management arrangements which includes a focus on collaboration and joint procurement
- a broad range of existing external programs targeting waste minimisation and best practice waste management, such as Clean Up Australia Day, Garage Sale Trail, Compost week and Resource Smart Aussie Vic Schools just to name a few
- the development of social media platforms that are facilitating a culture of collaborative consumption and re-use, and presenting opportunities to undertake cost effective education campaigns
- developments in technology, including mobile computing for data capture, as well as new technology in waste management which is extending the range and volume of materials which can be recycled or processed for energy recovery.



## 12. Priorities over the next 5 years

Arising from these challenges and opportunities, a number of priorities have been identified for key service areas.

### Waste education

- Communicate the drivers of cost and changes in waste practices.
- Engage with a broad cross section of the community via a range of media and existing social networks.
- Maximise Council participation in regional waste education programs.
- Secure funding and resourcing opportunities to better support the Murrindindi community to minimise waste and improve recycling through education initiatives.

### Kerbside services

- Investigate expanding the Compulsory Waste Charge Zone and removing sites which attract high levels of dumped rubbish such as the Taylor Bay bin compound.
- Review the service levels for kerbside collection to maximise efficiency of the service and diversion of waste from the landfill stream, including bin sizes and collection frequency.
- Investigate opportunities to divert the significant proportion of organics from the kerbside waste

stream, including consideration of the role of education, home and community composting and potential for introduction of a third bin for organics collection.

### Commercial services

- Review the operational and cost effectiveness of expanding Council's commercial waste and recycling program, and utilise the service to improve business recycling rates.
- Investigate the level of contamination and recycling rates within this service to understand overall performance.
- Ensure waste disposal fees are appropriate and competitive.

### Resource recovery centres

- Ensure efficient and cost effective operations.
- Increase the range of materials available to be recycled at RRCs.
- Revise operational procedures with a view to introducing opportunities for direct re-use.
- Ensure fees and charges reflect the costs to recycle and dispose of waste.
- Investigate the viability of reuse shops and other opportunities for reusing whilst maintaining income



## Priorities over the next 5 years CONTINUED

and considering Occupation Health and Safety compliance.

- Improved the management of organics at RRCs, including higher quality mulch and a clear framework for green waste amnesties.
- Introduce electronic data recording and purchasing.

### Landfill management

- Update and implement a landfill operational plan that approaches best practice.
- Resolve ongoing issues with landfill leachate disposal.
- Understand future cost liabilities resulting from the operation of the Alexandra Landfill and potential liabilities relating to rehabilitation of former Council landfill sites.
- Ensure compliance to increasing levels of regulation of environmental protection and OHS.

### Waste infrastructure improvements

- Ensure landfill and RRCs are operated and improved in line with best practice standards.
- Seek funding opportunities to fund priority capital improvement for RRCs.
- Development of a ten year capital improvement

plan for the Alexandra Landfill and RRCs.

### Litter and dumped rubbish

- Develop procedures and resources to proactively respond to litter and dumped rubbish issues within the Shire.
- Participate in regional litter and dumped rubbish minimisation initiatives.

### Public place recycling

- Supporting public events with improved waste and recycling services.
- Investigate the viability of Public Place Recycling in major population centres.

### Hard waste collection

- Assess options for the collection of hard waste within the Shire.
- Assess community feedback regarding the cost of hard waste collections.

### Assisting our community groups

- Define waste subsidies and other means of assistance for community groups and not for profit organisations.



## 13. Murrindindi Shire Council

# Waste and Resource Recovery Implementation Plan

***Our vision: Murrindindi Shire Council provides equitable waste management and resource recovery services and infrastructure that prioritise and facilitate waste minimisation, resource re-use and recovery over disposal.***

The Waste and Resource Recovery Implementation Plan articulates a vision and a range of strategies that contribute to achieving that vision. Each strategy is accompanied by an action or series of actions which Council commits to undertake to achieve each strategy and the vision.

Strategies that support this vision are grouped into themes which reflect current key services and priorities.

### Theme 1 - Waste education

Engaging our community in waste and resource recovery educational programs will increase understanding in the community about the drivers of waste management and the environmental benefits of resource recovery, resulting in positive behaviour change.

### Theme 2 - Improving our infrastructure

The current standards of waste infrastructure at Council's RRCs and landfill require ongoing investment to achieve and maintain a standard of best practice. There is much that can be done to improve our infrastructure to make it easier for customers to recycle, and easier for the waste services staff to operate the sites to a higher standard.

### Theme 3 - Kerbside waste collection services

The current format of the kerbside services has broad support in the community, however there remains potential to improve and extend these services.

### Theme 4 - Litter and public place waste management

There are significant opportunities to change the way we deliver services and manage waste in public places.

### Theme 5 - Assisting our community

There is a range of initiatives which Council can implement to ensure that all members of our community are able to access waste services.

### Theme 6 - Leading by example

Council understands that if we expect the community to exhibit good behaviour in relation to waste and resource recovery, we should also be doing the right thing. Opportunities exist to improve how we manage our waste, and to document and share our journey to improve waste management practices.

**Timeframes for actions can be interpreted as follows:**

<b>Ongoing</b>	– action underway
<b>Immediate</b>	– for action within six months
<b>Short term</b>	– for action within 1-2 years
<b>Medium term</b>	– for action within 3-4 years
<b>Long term</b>	– for action within 5+ years

## Theme 1 - Waste Education

**Goal:** Our community understands why waste avoidance, re-use and recycling are important, and demonstrate best practice waste and resource recovery behaviour.

Strategy	Action	Measure	Timing
<b>1.1</b> Advocate to the State government for state funded waste education programs to be hosted within Murrindindi Shire.	Participate in the Education Committee of the Goulburn Valley Waste and Resource Recovery Group and utilise the shared resources to deliver education programs to schools and community groups.	Delivery of 1 program by Regional Education Officer annually	Ongoing
	Leverage State and regional programs targeted at safe disposal of asbestos and household and agricultural chemicals, in particular Asbestos Check, Detox Your Home and Chemclear, and any successor programs.	Promote at least 3 programs annually	Ongoing
	Lobby and advocate for State support and funding for waste education programs via the Goulburn Valley Waste and Resource Recovery Group.	Council support for programs, at least 1 annually	Short term
<b>1.2</b> Support and promote other organisations' waste reduction and education programs and events.	Support community groups to participate in Clean Up Australia Day activities.	Increase in number of participants	Ongoing
	Council to participate in Clean-up Australia Day.	1 site per annum	Medium term
	Investigate and implement other opportunities for promotion of programs that encourage awareness of waste management issues.	Promote community participation in at least 2 programs annually	Medium term
	Create a space on Council's website for the promotion of external waste related programs.	Page created	Medium term
<b>1.3</b> Incorporate community education deliverables into kerbside waste collection contracts.	Collaborate with other regional councils to provide funding for waste education within waste and recycling contracts.	Funding for waste education derived through contract	Short term
<b>1.4</b> Engage with business to develop strategies for increasing their waste diversion.	Promote State level programs and initiatives targeting small to medium business waste minimisation to local trader and industry groups.	Present to 2 groups per year	Medium term
	Develop a trial program of waste assessments for businesses that have a Council service to assess performance and for the purpose of tailoring waste minimisation initiatives.	Engage at least 3 businesses per year	Medium term
<b>1.5</b> Promote best practice waste behaviour with a focus on re-use and recycling using a combination of methods and media.	Develop fact sheets and posters about waste avoidance and waste reduction and make available on Council's website, at RRCs, and at common kerbside collection points.	Fact sheets developed	Short term
	Make use of print and radio media to promote best practice household and business waste management.	2 media releases per year	Short term
	Develop the recycling calendar into a more comprehensive booklet on recycling.	Booklet developed	Medium term
<b>1.6</b> Develop RRCs as hubs of information relating to re-use and recycling.	Implement signage at RRCs and common kerbside collection points providing information about specific recycling streams including component materials, recycling method, and destination.	Infrastructure in place	Medium term
	Identify and implement a program of training for RRC staff to enable them to be ambassadors for resource recovery.	Training delivered	Medium term

## Theme 2 – Improving Waste Operations and Infrastructure

**Goal:** Our waste management infrastructure and operations approach best practice through a process of continuous improvement.

Strategy	Action	Measure	Timing
<b>2.1</b> Leverage State and regional support to undertake a review of RRC infrastructure.	Lobby State government for funding for infrastructure upgrades and apply for funding when available.	1 Application per annum	Ongoing
	Review the Waste and Resource Recovery Implementation Plan to align with the future Regional Waste and Resource Recovery Implementation Plan once it has been developed.	Strategy updated and reported to Council	Medium term
<b>2.2</b> Ensure RRCs make it easier and more convenient to divert materials for re-use and recycling.	Upgrade commingled recycling infrastructure at all sites to increase the volume and allow easier recycling of large cardboard.	RRC capital improvement plan developed	Immediate
	Upgrade signage at RRCs to clearly identify the location of each recycling stream.	Signage installed	Immediate
	Benchmark RRC infrastructure against best practice guidelines with a view to approaching good practice.	Review completed	Short term
	Review RRC opening hours to optimise operational efficiency.	No reduction in volume of materials	Immediate
	Investigate the cost effectiveness of the current system of bulk bins at RRCs.	Reduced unit cost per bin shift	Medium term
	Develop a 10 year capital improvement plan for RRC infrastructure.	RRC capital improvement plan developed	Medium term
<b>2.3</b> Create re-use shop infrastructure at RRCs and facilitate managed scavenging.	Review operational practices at RRCs with a view to introducing a safe and equitable system of managed scavenging.	RRC Operational Manual updated	Short term
	Investigate best practice re-use shops in Victoria to develop a model for our RRCs.	Results reported to Council	Short term
	Investigate and implement appropriate operations and infrastructure to develop re-use shops and material recovery practices RRCs.	RRC Capital Improvement Plan developed	Medium term
<b>2.4</b> Increase the range of materials diverted from the landfill waste stream through a process of continuous improvement.	Identify and introduce an appropriate range of recycling streams that approaches good practice. Introduce additional streams where feasible on a cost recovery basis, starting with silage wrap.	1 additional recycling stream each year	Medium term
	Divert un-treated construction timber to be processed on-site into timber chips.	Practices updated	Short term
	Divert clean plasterboard to be processed on site and blend with mulch to create a higher quality product.	Practices updated	Medium term
	Identify and introduce an appropriate range of additional recycling streams at RRCs that approach good practice.	1 additional recycling stream each year	Short term

CONTINUED

## Theme 2 CONTINUED

Strategy	Action	Measure	Timing
<b>2.5</b> Improve on-site processing of materials to meet market demand, in particular for high quality mulch.	Leverage regional and State support to develop an organics strategy for MSC.	Review complete	Immediate
	Review procedures and resources to ensure waste is diverted from the green waste stockpiles prior to processing.	Reduction in contamination	Immediate
	Develop a tender for green waste processing that includes quality requirements.	Tender awarded	Short term
<b>2.6</b> Manage the landfill in a way that maximises the economic value of airspace.	Undertake a study into the financial viability of the landfill versus disposal outside of the shire.	Report completed	Short term
	Investigate diversion of recyclable materials currently arriving in the landfill stream to be recycled.	Reduction of waste to landfill	Medium term
<b>2.7</b> Resolve ongoing issues with leachate containment at the Alexandra Landfill.	Complete design investigation.	Design report	Immediate
	Construction of recommended leachate containment solution.	Construction complete	Short term
<b>2.8</b> Reduce the liability associated with former landfills.	Identify and develop management plans for all former landfills in shire.	Plans developed	Medium term
<b>2.9</b> Improve data capture and communication.	Implement electronic data capture system at RRCs, leveraging external programs to ensure the system is consistent with regional and State objectives.	Implementation of electronic data	Medium term
<b>2.10</b> Reduce risks associated with cash handling.	Introduce EFT facilities at all sites.	Infrastructure in place	Short term
<b>2.11</b> Maintain a watching brief on new disposal technologies and options for maximising value from waste of all kinds.	Develop a project to identify future sites and technologies to maximise the value and reduce the disposal for residual wastes following exhaustion of economically viable airspace in the current landfill.	Project scoped	Long term

## Theme 3 – Kerbside Collection Services

**Goal:** Kerbside waste and recycling services are provided across the shire in an efficient, reliable and sustainable way.

Strategy	Action	Measure	Timing
<b>3.1</b> Review kerbside waste and recycling services.	Work with the Goulburn Valley Waste and Resource Recovery Group to identify best practice opportunities for improving kerbside collection services.	Participation in Forum meetings	Ongoing
	Remove the Taylor Bay bin compound and replace with a kerbside service.	Reduction in illegal dumping	Short term
	Revise the definition of Compulsory Waste Charge Zone to incorporate all properties.	Number of tenements included in Compulsory Waste Charge Zone	Medium term
	Refine the kerbside collection contract terms so that there is increased opportunity for service extension during the contract period.	% of roads in shire with a collection service	Short term
<b>3.2</b> Seek to expand business recycling via Council's commercial waste collection service.	Actively promote the commercial collection service through existing business networks.	Numbers of businesses using service	Medium term
<b>3.3</b> Support a grant funded feasibility study of a kerbside organics collection service.	Use the tender process for kerbside services to define prices for a kerbside organics collection service.	Tenders kerbside organics collection	Short term
	Investigate options for organics processing.	Report completed	Short term

## Theme 4 – Litter and Public Place Waste Management

**Goal:** The community has the opportunity to dispose of waste and recyclables in public places and at public events.

Strategy	Action	Measure	Timing
<b>4.1</b> Manage litter proactively to increase diversion of recyclable materials from the waste stream and reduce dumped rubbish.	Develop a litter management plan to identify issues and prioritise actions to improve litter management.	Litter management plan in place	Medium term
	Investigate the viability of public place recycling, including potential for a collection service as part of the kerbside collection service.	Report complete	Long term
	Undertake a shire wide review of litter bin infrastructure, and upgrade infrastructure to comply with the litter management plan.	Consistent infrastructure in place across the shire	Medium term
<b>4.2</b> Promote and support waste minimisation practices at community and Council events.	Work with the organisers of community events to implement recycling at their events.	Number of recycling bins at events	Ongoing
	Develop a clear set of guidelines outlining Council's expectations for waste management at major events and the resources that are available to assist, and incorporate into event planning procedure.	Guidelines available on line	Medium term
	Procure the necessary equipment to set up an "event waste management trailer" that can be used by event organisers to better manage waste at their events.	Equipment procured and in use	Medium term
	Council event organisers will work with the Waste Management unit to develop and implement a waste management plan for events that promotes recycling.	Number of recycling bins at events	Immediate

## Theme 5 – Assisting Our Community

**Goal:** The provision of waste services is equitable and accessible to all members of our community.

Strategy	Action	Measure	Timing
5.1 Council delivers sustainable and equitable waste management services.	Develop a Waste Charges Policy which defines the level of waste services provided by Council including the waste charges and fees that apply to those services.	Policy adopted by Council	Short term
	Prepare an options paper that investigates the need for and methods of delivering equitable access to hard waste disposal.	Report to Executive	Long term
5.2 Support schools, community organisations and artists to access materials for re-use and re-purposing projects.	Actively promote and facilitate re-use of materials deposited at RRC's by schools and community organisations.	Operating guidelines developed	Short term
5.3 Promote sharing, swapping and re-selling of goods by providing forums for promotion of these activities.	Investigate opportunities to provide support to existing web-sites that facilitate sharing and re-use of materials.	Information promoted on Council website	Medium term
	Install notice boards at all RRCs for the display of information regarding re-use and recycling, and to be used as community noticeboards to encourage re-use.	Infrastructure in place	Short term

## Theme 6 – Leading By Example

**Goal:** Council operations demonstrate good waste management practices to the community.

Strategy	Action	Measure	Timing
6.1 Provide policy guidance that defines Council's internal waste minimisation objectives and KPIs.	Develop a corporate Resource Consumption Management Plan, incorporating an audit of waste generated through all Council operations.	Plan developed	Medium term
	Improve recording of waste generated through Council activities.	Annual data baseline established	Medium term
6.2 Seek to minimise the generation of waste through sustainable procurement practices.	Identify and participate in an existing sustainable procurement program specifically targeted at local government.	Program participation	Medium term
6.3 Ensure Council operations demonstrate best practice waste management.	Review chemical disposal practices for Council operations and alter operational practices or infrastructure as required.	Guidelines developed	Short term
6.4 Council's internal waste minimisation practices will be promoted to the wider community.	Expand the existing reporting of Council recycling KPI's and key actions.	KPI's developed and reported in annual report	Medium term
	Increase communication of activities and successes in improving waste management services in the shire.	Media release developed for each key action completed	Ongoing

## 15. Glossary

### 14. Large print available

This strategy is available in large print. Please request from Murrindindi Shire Council.

### 16. Bibliography

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Commingled recycling	A method of collecting recyclables in which all paper, plastics, metals and other containers are mixed in a collection truck, with materials being separated for re-use at a materials recovery facility (MRF)
EP Act	Environment Protection Act 1970 (Victoria).
EPA	Environment Protection Authority
E-waste	Electronic waste, typically waste containing circuitry such as televisions, computers and associated technology
GVWRRG	Goulburn Valley Waste and Resource Recovery Group
Landfill	An engineered facility for the disposal of waste materials by burial
MGB	Mobile garbage bin
MRB	Mobile recycling bin
Recycling	Materials are processed into a new material or new product
Re-purposing	Using an item in its original form for a different purpose, such as using old horse shoes to create sculptures
Re-using	The practice of using an item more than once without reprocessing the material
Resource recovery	Diversion of waste materials from the landfill stream to enable further benefit from the material through re-use or recycling
RRC	Resource Recovery Centre (formerly known as transfer station)
RWRRIP	Regional Waste and Resource Recovery Implementation Plan
SWRRIP	Statewide Waste and Resource Recovery Infrastructure Plan
WRRS	Waste and Resource Recover Strategy (this document).