



Lockyer Valley Regional Council

Waste Reduction and Recycling Plan 2019–2022



REGIONAL COUNCIL





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1

FOREWORD

The Lockyer Valley is synonymous with farming and the natural environment and contains some of the most fertile soils in the world. We offer a location that is ideal for growing vegetables, businesses and families. To maintain our enviable surroundings for future generations we all need to manage our resources and waste in responsible, sustainable and innovative ways.

Lockyer Valley Regional Council is committed to a waste management strategy that strikes a balance between environmental responsibility, financial sustainability and community needs. The more we can recycle, reuse and recover, the less waste needs to go to landfill and the more we achieve that balance.

Council currently collects waste from approximately 15,670 properties each week, along with fortnightly recycling collections, and manages it through eight transfer stations and 2 landfills. With our current population of 42,229 residents set to grow to 1.79 per cent per year, the volume of waste produced will also grow substantially. Defining and adopting a range of innovative and sustainable approaches to waste management and resource recovery is absolutely essential for our collective future.

In 2016-17, Council managed 49,372 tonnes of waste, 93 per cent of it produced by households. Despite successful recycling programs, 58 per cent of domestic waste received was sent to landfill and no doubt included green waste, food waste and recyclables that could have been diverted. While we are performing better than average across the wider South East Queensland region, which recorded a 37 per cent resource recovery rate in 2017-18 there is still significant room for improvement.

Waste Reduction and Recycling Plan 2019-2022 is Council's waste management strategy for the next three years. With new technologies coming into the waste management and recycling industry all the time, and changing demographic profiles in our community, Council has kept this Plan to a relatively short timeframe to encourage ongoing innovation. The Plan draws on industry best practice and local trends and will guide how we can improve waste management. Recovering and reusing more resources will reduce the volume of useful material and organic matter going to landfill – which is a win-win for the community and environment.

Implementing the Plan will require some changes in how we all manage waste and recycling, and Council recognises that not all change is comfortable. Our hope is that our community shares the goal of enhancing the liveability of our community while embracing our economic, cultural and natural diversity.

We encourage everyone in our region to continue to reduce the amount of waste that goes to landfill and improve recycling and resource recovery. We have set some high, yet achievable, targets to reach for, including a focus on improving recovery rates, minimising food waste, and reducing the amount of green waste and recyclables going into waste bins.

Everyone has a role to play in the creating a great future for our region and in ensuring the success of our waste management strategy. If we work together and share the load, we will get positive outcomes that benefit all of us!

I am proud to present the Lockyer Valley Regional Council *Waste Reduction and Recycling Plan 2019- 2022*.



A handwritten signature in black ink that reads "Tanya Milligan".

Tanya Milligan
Mayor
Lockyer Valley Regional Council

THE NEED FOR A STRATEGY

Our concept of waste is changing. It is a shift in perspective from viewing waste as rubbish to discard, to a valuable resource for which innovative solutions can be found that focus on diversion away from landfill and foster local solutions which deliver economic growth and employment. Our region needs a waste plan that addresses future population growth and delivers essential waste management services to the local community while striving to meet growing community and social expectations for better resource recovery and waste avoidance.

In the 2018/19 financial year, the provision of waste services to the community cost each rate payer \$419 per year. This covers the cost of a weekly kerbside waste and fortnightly kerbside recycling and the operation of Council's waste transfer station and landfill network. In development of this plan, Council has aimed to balance the need for delivering essential future infrastructure and improving waste diversion with responsible budgeting and financial management.

The *Waste Reduction and Recycling Plan 2019-2022* (the Plan) sets a clear path for the management of solid waste in the Lockyer Valley region towards and beyond 2022, with a focus on the household waste stream. It builds on *The Waste Reduction and Recycling Plan 2012 - 2021*, with Council achieving many of the actions identified in the plan, as detailed in Appendix A. This *Waste Reduction and Recycling Plan 2019-2022* will amend the old plan and focus on transitioning the region towards improved waste facilities that deliver the greatest benefits to our local community in terms of resource recovery and environmental amenity.

The Queensland Government is embarking on a new direction in waste management, with the centerpiece of the strategy being the introduction of a waste disposal levy, providing an incentive to avoid waste to landfill. The development of this *Waste Reduction and Recycling Plan 2019-2022* will fulfill the statutory requirement for Local Government to prepare and implement a waste reduction and recycling plan under the *Waste Reduction and Recycling Act 2011 (WRRRA 2011)*.



WHAT WASTE STREAMS DOES THIS STRATEGY ADDRESS?

The Strategy summaries the proposed strategic direction for solid waste management in the Lockyer Valley region that is generated from households, commercial and industrial premises and the construction and demolition sector. It aligns with the WRRRA 2011 requirement for each Local Government to develop a plan that considers waste generated by Local Government, households and other sources. It only considers the current and future management of *solid* waste by Council and does not include liquid waste, biosolids or hazardous wastes as these waste streams are not accepted by Council's landfills.

THE TYPES OF WASTE THAT ARE MANAGED BY COUNCIL & BROADLY ADDRESSED WITHIN THIS PLAN INCLUDE:

- Kerbside waste from households, garden waste, food waste, scrap metal, electrical appliances and whitegoods, wood and timber & textiles and clothing
- Old furniture
- Recyclables – paper, cardboard, plastic, steel, aluminium, glass, tyres, building materials, clean soil, rocks and rubble, paint cans, gas cylinders and fire extinguishers
- Asbestos



STRATEGIC ALIGNMENT

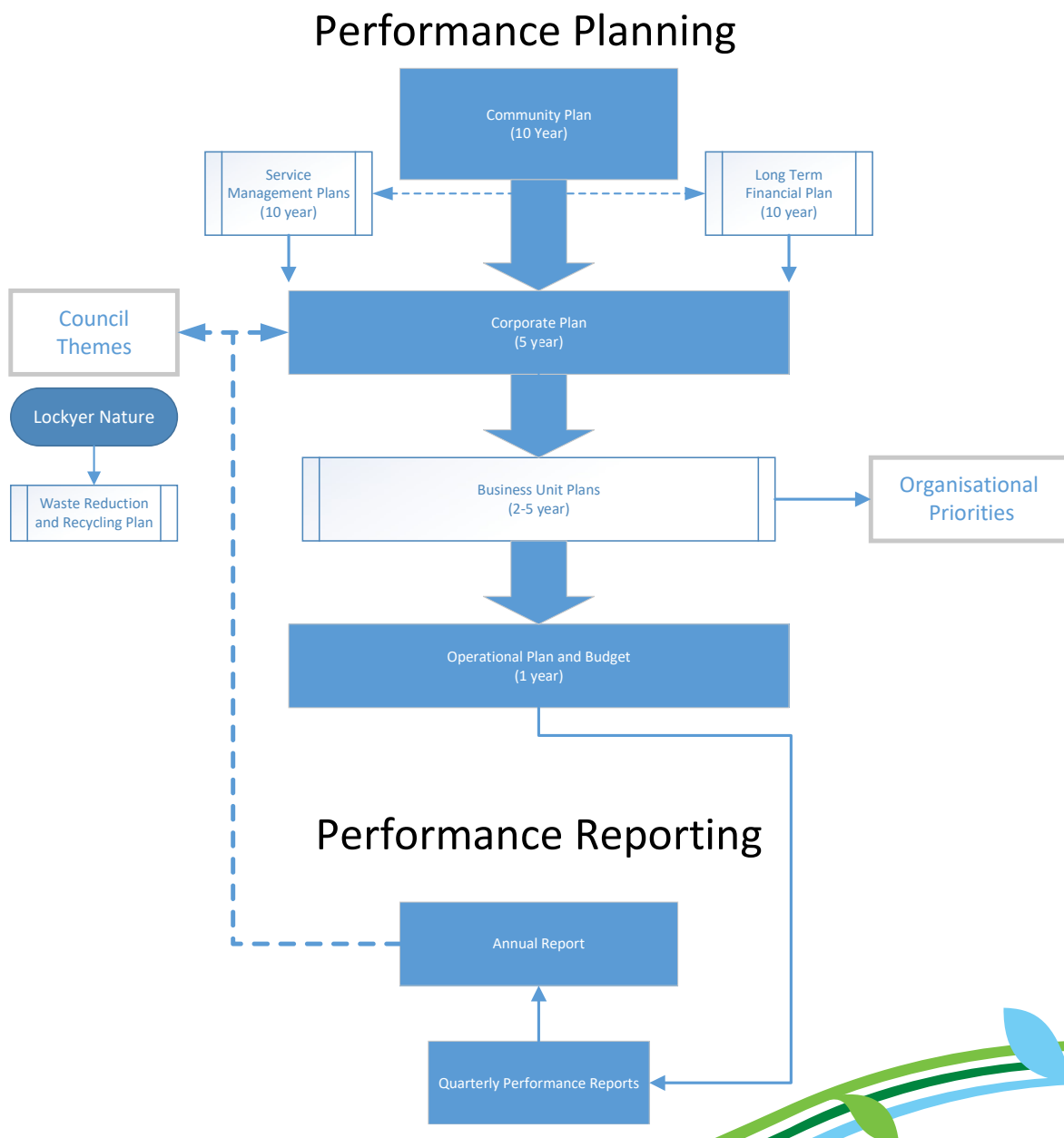
CORPORATE PLAN

Council's *Corporate Plan 2017-2022* is a key strategic document that provides a framework and guides Council in decision making and setting policy to prioritise and deliver services, programs and facilities to the community. The key themes outlined in the *Corporate Plan 2017-2022* and considered in the development of the Plan are Lockyer community, Lockyer business, farming and livelihood, Lockyer nature, Lockyer planned, Lockyer leadership and Council.

The *Waste Reduction and Recycling Plan 2019-2022* will align with and complement Council's Corporate Plan and be implemented through a consistent program of planning, decision-making, delivery and performance management.

The development of the Plan contributes to the following themes within the Corporate Plan.

Strategic Planning Framework



STRATEGIC ALIGNMENT (CONTINUED)

The development of the Plan contributes to the following themes within the Corporate Plan.

THEME	OUTCOMES	PERFORMANCE MEASURES
Lockyer community	1.1 A community with fair and reasonable access to services.	Community satisfaction with activities and services delivered.
Lockyer nature	3.5 Council and the community actively reduce waste, recycle and reuse more. 3.6 Council and the community actively reduce consumption of non-renewable resources.	Council waste resource recovery rate (percentage recycled) compared to like Councils.
Lockyer planning	4.2 Provision of fit for purpose infrastructure which meets the current and future needs of the region.	Sustainable and safe infrastructure networks.
Lockyer leadership and Council	5.1 Undertake robust and accountable financial, resource and infrastructure planning and management to ensure affordable and sustainable outcomes for our community. 5.3 Actively engage with the community to inform council decision making.	Customer satisfaction survey results Corporate plan implementation is tracked and performance reported.

NATIONAL WASTE POLICY

Australia's approach to resource recovery has been influenced by the *National Waste Policy: Less waste, more resources*, which set the direction from 2009 to 2020. In April 2018, the Commonwealth, State and Territory Governments agreed to reduce the amount of waste generated in Australia and to increase recycling, through the development of a new national strategy to be completed by 2019. Appendix B contains key policy and national legislation that guides waste management.

QUEENSLAND WASTE STRATEGY

The management of waste in Queensland is changing. The State Government previously adopted a State waste strategy until 2024; *Waste – Everyone's responsibility Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024*. During the process of developing this Plan, the Queensland Government announced the development of a new waste strategy underpinned by a waste disposal levy aimed to increase recycling and recovery of resources. The waste levy will be introduced from 1 July 2019 and applies to general and regulated waste that is placed in landfill. This process has not yet been completed and this Plan will need to be flexible to align with Queensland Government targets and principles as they become more defined.

The key principles and actions articulated by the Queensland Government include:

- progressive movement towards a "circular economy" to focus on the reuse, recycling and re-manufacturing of resources;
- introduction of landfill bans on waste streams where a feasible, alternative market exists;
- adoption of product stewardship programs, primarily through the introduction of national schemes;
- exploration of converting waste to energy to complement recycling; and
- development of performance monitoring systems that support good decision making for waste outcomes.

In conjunction with the waste levy, the Queensland Government has introduced new performance targets to drive the reduction in waste to landfill. More targets are expected to be developed in the final Queensland waste strategy that will support progress towards the targets proposed as follows:

- 25% reduction of household waste by 2050;
- 10% of all waste going to landfill by 2050; and
- 75% recycling rates across all waste types.

Council is in the unique position of developing the Plan in parallel to the Queensland Government strategy. The actions, targets and timeframes outlined in this Plan align with a focus on resource recovery and avoiding landfill disposal of recoverable materials such as construction waste, concrete, kerbside recyclables and organics. The prospect of grant funding being available to upgrade waste infrastructure and deliver innovative solutions will assist this Council to contribute towards the State goals and targets for avoidable waste.

HOW WAS THE WASTE STRATEGIC PLAN DEVELOPED?

The Plan has been developed through a combination of Council’s in-house expertise, Councillor input, consultants and community input, as detailed in the table below.

STAGE	OUTPUTS
1. Inception	June 2018
Research and information gathering on current practice, data analysis, State policy and opportunities	<ul style="list-style-type: none"> • Review of current and future service requirements • Review of policy, legislation and Corporate Plans • Site inspection of all Council facilities • One workshop with Councillor’s executive management and the waste team
2. Development	July 2018 – October 2018
Develop key themes and consult on short and long-term direction and actions. Preparation of draft strategy	<ul style="list-style-type: none"> • Consultation with Council officers and Councillors • Initial review of objectives, targets and actions
	November 2018
Research and information gathering on current practice, data analysis, State policy and opportunities	<ul style="list-style-type: none"> • Draft waste strategy prepared • Long term capital program developed
4. Closure	February 2019
Preparation of final draft – consultation and adoption	<ul style="list-style-type: none"> • Draft issued to community for public exhibition and consultation
	May 2019
	<ul style="list-style-type: none"> • Final <i>Waste Reduction and Recycling Plan 2019 – 2022</i> issued to Council for resolution • Provision of feedback to all stakeholders that provided a submission on the draft WRRP during the community consultation period.

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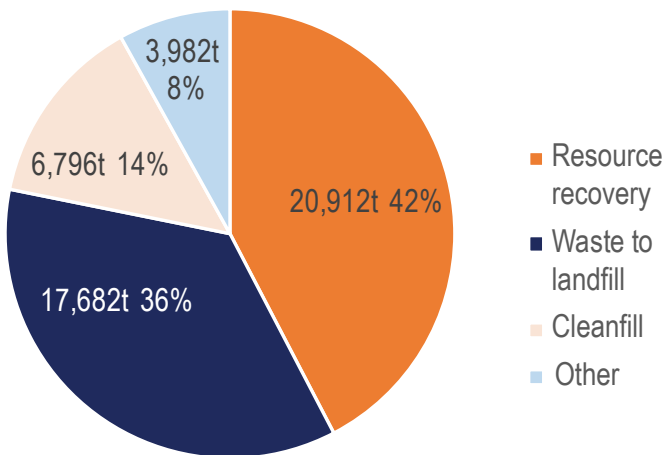
WHERE ARE WE NOW?

WASTE PROFILE

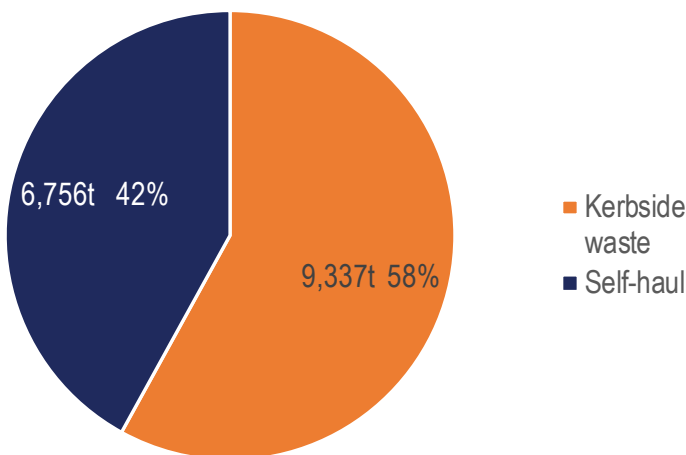
In 2016-17, the Lockyer Valley Regional Council managed over 49,372 tonnes of waste, recovering 42 per cent of all waste received. Clean fill, comprising 14 per cent is used for operational functions at Gatton and Laidley and is considered a valuable resource.

Waste collected from households and commercial premises through the kerbside service make up 58 per cent of all waste landfilled, with the remaining 42 per cent delivered directly to Council facilities by residential and commercial customers.

WASTE RECOVERED AND LANDFILLED (2016-17)



WASTE LANDFILLED BY METHOD



WHAT IS THE LOCKYER VALLEY REGION SENDING TO LANDFILL?

In 2016-17, over 17,000 tonnes or 36 per cent of the total waste received across Council's facilities was sent to landfill. Domestic waste is the largest contributor, at 73 per cent. Collectively, construction waste and commercial and industrial sources account for just under a quarter, with clean fill accounting for the remaining 5 per cent. Clean fill is used for operational functions at the Gatton and Laidley Landfill and is considered a valuable resource.

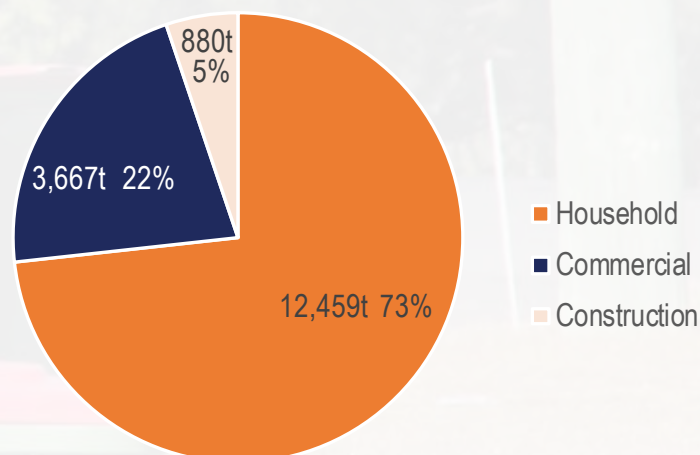
OF THE WASTE SENT TO LANDFILL:

- 55 per cent came from the kerbside general waste bins;
- 18 per cent was delivered by domestic residents using Council's resource recovery facilities;
- 22 per cent came from commercial and industrial sources; and
- 5 per cent was a by-product of construction and development.

OF THE RESOURCES RECOVERED FROM THE WASTE STREAM:

- 18 per cent came from the kerbside recycling bin;
- 36 per cent was green waste, delivered by domestic residents and commercial customers;
- 22 per cent was scrap metal and batteries; and
- 6 per cent was concrete.

WASTE LANDFILLED BY SOURCE (2016-17)



BIN COMPOSITION

Waste composition audits are completed annually to quantify the types of waste residents and business place in wheelie bins, so we can understand the potential for additional resource recovery and to target educational messages.

In 2018, audits were completed on the domestic kerbside waste bin (Figure 1), domestic recycling bin and commercial waste delivered to the Gatton Landfill (Figure 2). For the household waste, it demonstrates that up to 20% of recyclables are placed in the domestic waste bin and that organic waste (garden and food scraps) collectively comprise 44 per cent of the bin, providing a future opportunity for organics recovery. In the recycling bin, the audit highlighted that the typical bin is composed of approximately 33 percent cardboard, 9 percent plastics, 4.6 per cent metal, 8 per cent glass, with a contamination level of 15 per cent. The contamination rate for kerbside recyclables has stayed relatively consistent over the past four (4) years, ranging from 13.7 – 15 per cent.

HOUSEHOLD WASTE BIN COMPOSITION

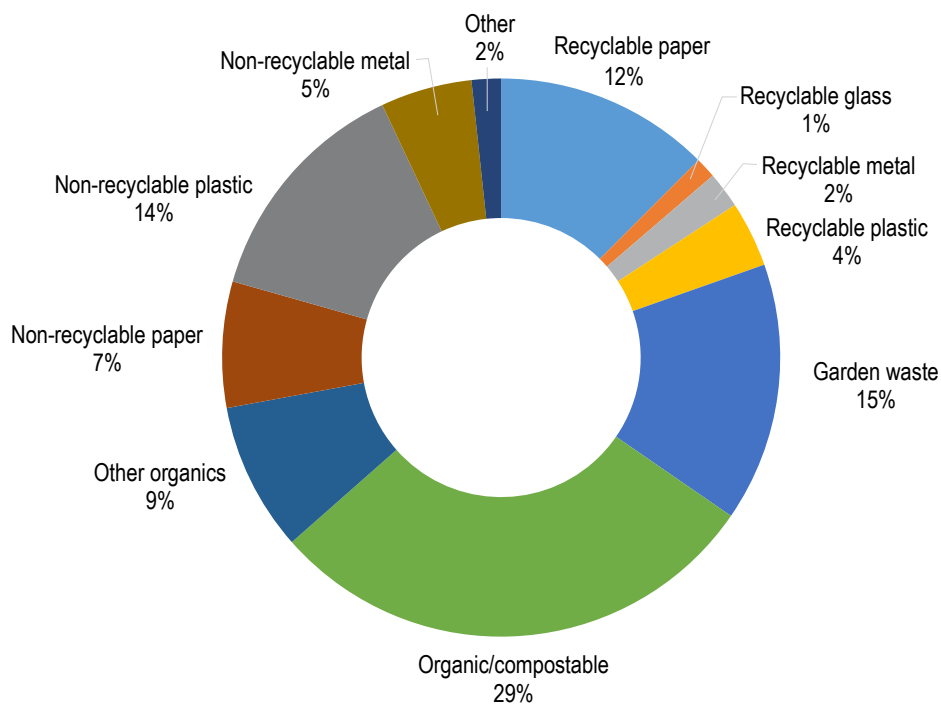


Figure 1: Household waste composition

HOUSEHOLD RECYCLING BIN COMPOSITION

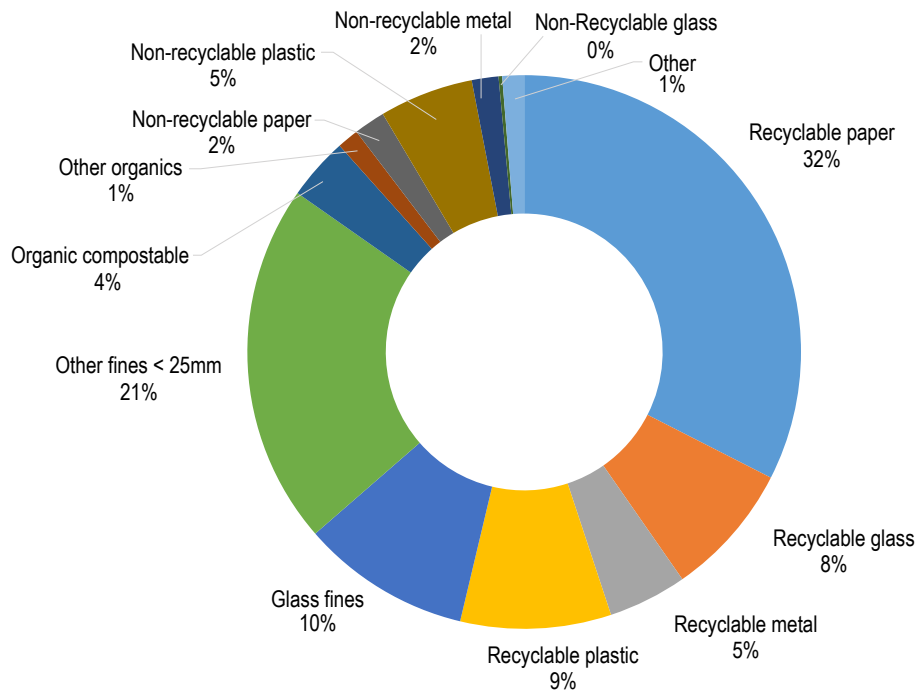


Figure 2: Household recycling composition

COMMERCIAL WASTE COMPOSITION

For the commercial waste delivered to the landfill, the recyclables component comprises approximately 18 percent, largely consisting of recyclable paper/ cardboard.

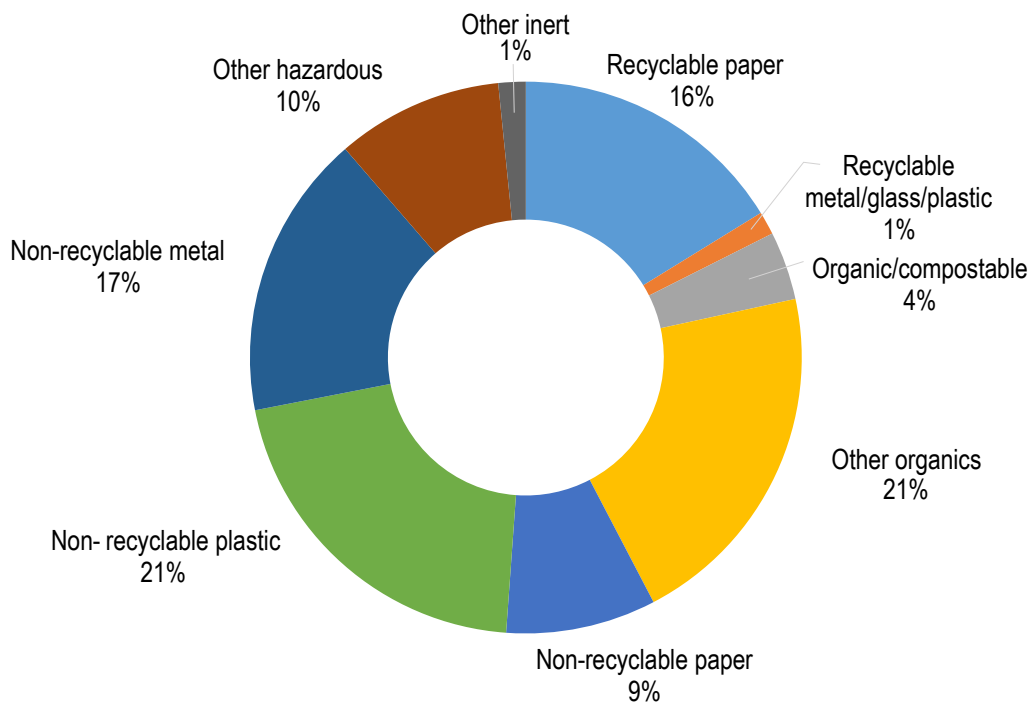


Figure 3: Commercial waste composition

WASTE COLLECTION SERVICES

Council is responsible for the provision of waste and recycling services detailed in the table below, via an eight year (plus one plus one) contract that commenced in 2013. Recyclables collected under the kerbside contract are delivered to the Gatton Materials Recovery Facility (MRF) operated by Anuha, a not-for-profit organisation that provides supported employment and other services to people with disabilities. The kerbside collection service is delivered to all eligible properties across the Lockyer Valley collection area which encompasses the majority of the region's premises.

WASTE STREAM	STANDARD SERVICE
Household solid waste	Weekly 240L general waste bin Fortnightly 240L recycling waste bin
Commercial and industrial waste (C&I)	<i>A small number of commercial premises are collected by Council as part of the kerbside collection service with the same bin set as household premises. The majority of commercial waste and recycling collection services are delivered by the private sector.</i>

WASTE FACILITY NETWORK

Lockyer Valley Regional Council currently manages a waste facility network that consists of eight resource recovery centres, three rural bin stations, one recycling market and two active landfills located at Gatton and Laidley that service major urban centres as well as rural townships.

Appendix C illustrates the locations and drive-time analysis of the eight transfer stations and three rural bin stations located within the region. The current positioning of facilities ensures that between 85 to 90 per cent of residents are located within a 20-minute drive of a resource recovery centre, with some townships able to access two to three facilities within a 20-minute drive. The generally accepted benchmark for Local Government best practice service levels is that more than 80 per cent of residents are located within a 20-minute drive.





LANDFILL CAPACITY

Council operates two active landfills for the disposal of putrescible and non-putrescible (inert) waste:

- Gatton Landfill is the primary landfill located at Fords Road, Gatton and has an estimated remaining capacity of approximately 250,000 cubic metres and is forecast to reach capacity in 2026.
- Laidley Landfill is primarily used for disposal of non-putrescible (inert) waste and has a capacity of over 110,000 cubic metres with a remaining operational life of over 50 years, based on the current quantities landfilled.

Securing a future waste disposal option is an essential element of waste infrastructure planning for the community, to maintain public health and deliver environmental protection. The predicted growth in the region will require a waste disposal option to be in place by 2026 to replace the Gatton Landfill. The options that will be assessed by Council over the duration of this Plan may include:

- Construction of a bulk haul transfer station at the Gatton Landfill;
- Sharing existing landfills with either the private sector or neighbouring councils;
- Construction of a new landfill site within the region;
- Re-directing suitable waste types to the Laidley Landfill; and
- Development of an alternative waste treatment (AWT) facility in conjunction with a public utility or utilise future AWT proposed by the private sector

At this stage, the construction of a bulk transfer station at the Gatton Landfill by 2026 is considered to be the best environmental, economic and social solution. Further studies need to be completed and the preferred outcome and steps to delivery will be detailed in the next *Waste Reduction and Recycling Plan 2023 – 2027*.

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WHERE ARE WE GOING?

WASTE GROWTH

The Lockyer Valley region is home to an estimated 40,229 people and is forecast to grow to 51,529 by 2031. The waste forecasts detailed in this Plan have been developed on the understanding that current rates of waste generation will increase, in line with population growth. Population growth in the Lockyer Valley region is expected to grow at a rate of 1.79 per cent per year over the period 2016 to 2031, with the eastern part of the region expected to experience higher growth rates.

It is anticipated that by 2031, an estimated 21,800 tonnes of waste will be landfilled, compared with the 17,000 tonnes in 2016-17. Council will also need to manage a higher quantity of resources, particularly green waste which is forecast to increase from approximately 7,500 in 2016-17 to 9,500 tonnes per annum in 2031.

Projected waste and resource recovery tonnages: 2018 - 2031

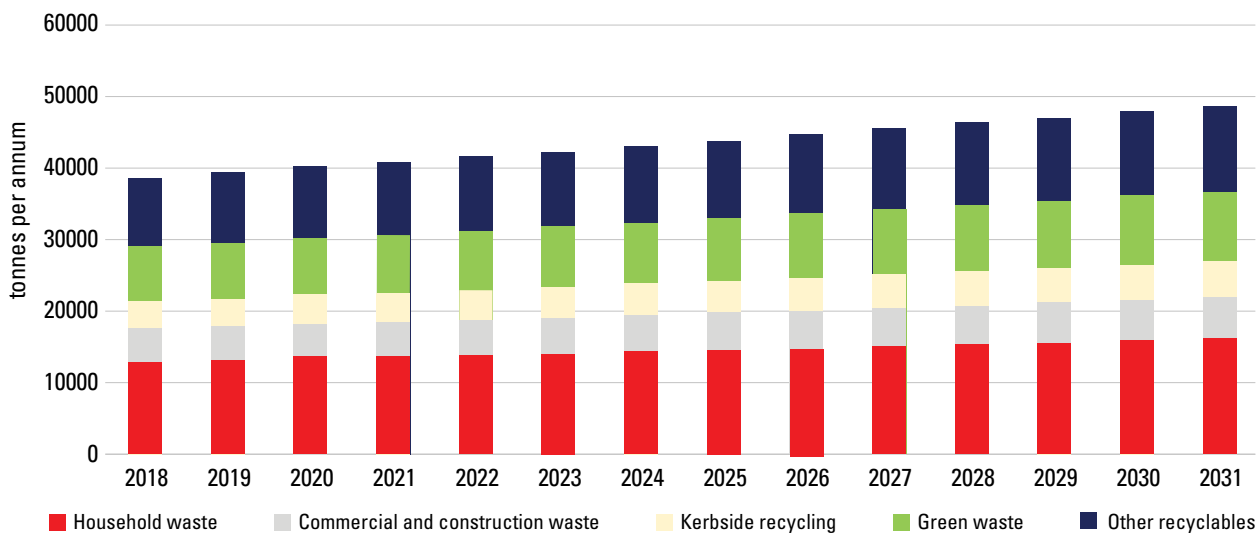


Figure 4: Projected waste and resource recovery tonnages from 2018 to 2031 for Lockyer Valley

RESOURCE RECOVERY OPPORTUNITIES

Council will aim to align resource recovery targets with the Queensland Government targets for regional Local Government. The Queensland Government is still developing a new waste strategy for the State and has articulated the proposed targets as follows:

- 20 per cent avoidable waste disposed to landfill by 2030;
- 10 per cent avoidable waste disposed to landfill by 2040; and
- Zero avoidable waste disposed to landfill by 2050.

As a Council, we will review the State Government targets in the new strategy and aim to implement approaches and practices that align with the State.



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STRATEGIC OUTCOME AREAS

OBJECTIVES

The key objectives that we will seek to address through the duration of the Plan include:

- Waste services reflect the community's desire for improved resource recovery, balanced with affordability.
- Waste operations are conducted with the minimum effect on the environment.
- Waste avoidance, re-use, recycling and recovery are maximised prior to landfill disposal, based on consideration of the environmental, social and economic benefits.
- Waste facilities are located in areas convenient for the majority of residents, are accessible and operate with a customer focus that prioritises resource recovery.

To provide a focal point for action of the objectives of the Plan, three strategic themes were developed that provide a framework for the Council to deliver actionable items over the life of the Plan.



**1: PLANNING FUTURE WASTE
INFRASTRUCTURE**



**2: IMPROVE WASTE DIVERSION AND
RESOURCE RECOVERY**



**3: OPERATIONAL EFFICIENCY AND
COMPLIANCE**



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PLANNING FUTURE WASTE INFRASTRUCTURE

ACTIONS FOR DELIVERY

Council is the main owner and operator of landfill and resource recovery infrastructure across the region and will play a lead role in the development of infrastructure that is suited to recycle, recover and dispose of solid waste generated across the region. Gatton Landfill is forecast to reach closure capacity around 2026. On the closure of the Gatton Landfill, Council's current long-term intention is not to seek approval to establish a new landfill within the Lockyer Valley but to send waste to existing engineered landfills located outside the region. This will need to be carefully considered to ensure Council delivers a solution that reflects the best economic, environmental and socially acceptable solution for the community.

Improvements in the availability of alternative waste treatment (AWT), combined with the State Government focus on reducing avoidable waste to landfill may expand the role of waste treatment technology to produce composts, refuse derived fuels or contribute waste feedstock to a waste to energy facility. Implementation of a new kerbside collection contract from either 2022 or 2023 is a logical milestone to explore the value of AWT, how it can contribute to improved resource recovery and partnerships that may need to be cultivated with industry, other public utilities and university to deliver this for the community.

For this Plan, Council's aim is that 80 per cent of residents are within a 20-minute drive of a waste facility. This benchmark will be used to guide the identification and selection of a new Resource Recovery Centre (RRC) to service the growing population around the Plainland locality and the residential population catchment that currently access the Lockrose and Lockyer Waters waste facilities. In the draft WRRP, Otto Road, a disused Council quarry site was identified as a potential site for the construction of a RRC. Due to public feedback received during the community consultation period, Council has decided to conduct a site selection study of the eastern area to identify other potential sites and select a preferred site.

In the western area of the region, the Helidon, Withcott, Grantham and Murphys Creek resource recovery facilities provide a high level of access to residents. Following a review of levels of use at all facilities, Council will rationalise operational hours at facilities in the western part of the region to better balance resources and community needs. This will include reducing the opening days of the Helidon facility to 1 day per week and a partial reduction in hours at Grantham, Murphys Creek and Withcott.

TARGETS

By 2022, we will have:

- Completed a masterplan for the Gatton Resource Recovery Centre (RRC), with a view to constructing Cell 5 and then constructing a bulk waste transfer facility;
- Identified the most suitable future waste disposal option for the region and have commenced planning to deliver an outcome in 2026;
- Completed a site selection study to identify the most preferred site for a new Resource Recovery Centre (RRC) to service the eastern area of the LVRC.
- Developed a waste network that meets Council's target benchmark;
- Developed a 20-year final capping program for legacy landfills.

<i>ACTION</i>	<i>DETAIL</i>
1.1 Maintain landfill security for the region	<ul style="list-style-type: none"> • Construct Cell 5 at the Gatton waste facility in 2021
1.2 Develop Gatton waste management facility as the primary waste management site for the region	<ul style="list-style-type: none"> • Develop a masterplan for the Gatton site that secures the site as the primary waste management and resource recovery centre for the region. • Decision on bulk transfer facility and disposal to third party landfill by 2022.
1.3 Laidley Landfill	<ul style="list-style-type: none"> • Prepare a final landform plan for the current Laidley inert landfill and assess long-term strategic approach for waste acceptance.
1.4 Develop waste facilities that meet future community expectations	<ul style="list-style-type: none"> • Complete a site selection study to identify a preferred site for a new Resource Recovery Centre in the eastern area. • Amend operating hours at Withcott, Grantham, Murphys Creek, Lockyer Waters and Lockrose from 1st July 2019. • Reduce Helidon waste transfer facility to one day per week from 1st July 2019. • Commence investigation of a suitable site for a new waste transfer facility in the western area.
1.5 Develop final capping and closure construction program for all "non-active" landfills	<ul style="list-style-type: none"> • Develop a 20-year final capping and rehabilitation construction program and integrate into the capital delivery program to achieve final capping of all landfills by 2043.
1.6 Kerbside collection contract	<ul style="list-style-type: none"> • Issue public tender for new waste collection service by 2022.
1.7 Service level usage review	<ul style="list-style-type: none"> • Review the operational hours and customer usage of all waste transfer facilities for financial year 2019/20 to ensure operations and opening times are appropriate and servicing the needs of the community.



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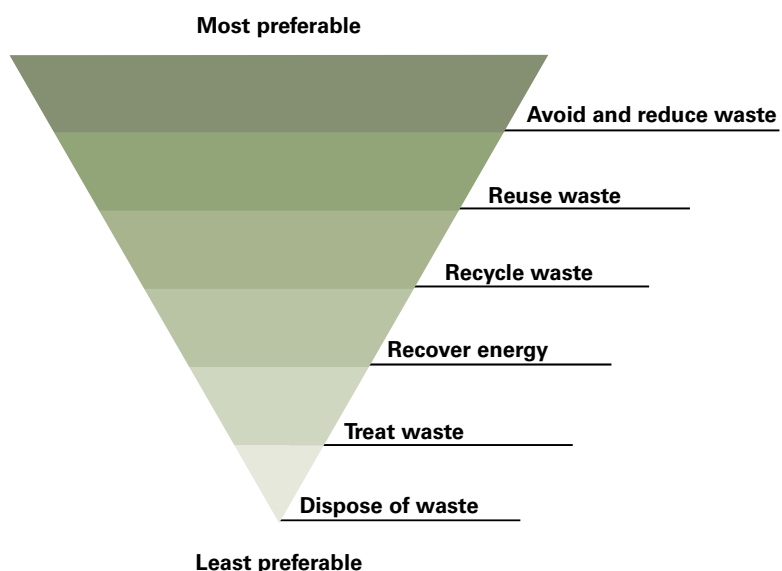
IMPROVE WASTE DIVERSION AND RESOURCE RECOVERY

ACTIONS FOR DELIVERY

Council supports an approach to resource recovery that aligns with the waste hierarchy, with the avoidance and reducing components addressed through our waste education actions. Reuse and recycling, with a particular focus on developing local reuse solutions that will support job creation in the region and extend the duration of the Gatton and Laidley Landfills.

In financial year 2017, Council achieved a total recovery rate of 42 per cent, meaning that of all the waste received across waste facilities, we recovered 42 per cent for secondary use, diverting these waste streams from landfill. Household waste achieved the highest recovery rate at 47 per cent. Recovery of the commercial waste stream is more challenging and achieved a recovery rate of 33 per cent, primarily through green waste recovery.

Construction and demolition waste is more readily recoverable than commercial waste and in 2017, Council achieved a recovery rate of 60 per cent. The introduction of the Queensland Government waste levy from 1 July 2019 will support Council to establish segregation areas at major sites and recover more timber, concrete and other building materials.



TARGETS

By 2022, we will have:

- Increased the level of resource recovery at Council’s resource recovery facilities;
- Improved the recovery of recyclables and reusable materials from Council operations; and
- Introduced programs that enhance the community’s knowledge on how resources can be recovered and reduce contamination in kerbside recycling bins.

ACTION	DETAIL
2.1 Increase resource recovery at waste facilities	<ul style="list-style-type: none"> • Identify opportunities for improved resource recovery, with a particular focus on improving organics processing and sorting of construction and building wastes. • Implement a consistent and effective resource recovery approach across major and minor Transfer Stations.
2.2 Establish gate fee pricing incentives that encourages resource recovery	<ul style="list-style-type: none"> • Review gate fee pricing and set pricing to encourage resource recovery and waste segregation.
2.3 Council to promote waste reduction and diversion in the way it conducts its activities	<ul style="list-style-type: none"> • Undertake operational waste audits of key Council waste generators and establish department specific waste diversion programs. • Determine waste generation rates for main Council activities as baseline to set targets for improvement in resource recovery. • Establish policy to encourage Council to utilise recovered resources (mulch product, recycled aggregate, glass fines) to support end-use markets).
2.4 Feasibility of alternative waste treatment	<ul style="list-style-type: none"> • Maintain watching brief and continue collaboration with relevant parties to consider an alternative waste treatment technology that may be suited for the Lockyer Valley context.
2.5 Waste education	<ul style="list-style-type: none"> • Prepare, implement and monitor an annual education plan. • Develop programs with a focus on improving recovery of kerbside recyclables. • Deliver waste education programs throughout the region to schools, community groups and large waste generators. • Promote recycling at community events
2.6 Regional collaboration	<ul style="list-style-type: none"> • Collaboration with relevant Local Government and utilities to assess opportunities for shared resource recovery infrastructure and programs.



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OPERATIONAL EFFICIENCY AND COMPLIANCE

ACTIONS FOR DELIVERY

Waste management is a significant business activity for Council and costs over \$7 million per annum to collect kerbside waste, safely operate landfills and manage waste transfer facilities that enable resource recovery and disposal for the community. In addition to delivering the essential kerbside collection service, our focus is on improving the “waste transfer facility” infrastructure across the region through investment in new facilities and upgrading the infrastructure, systems and processes at existing facilities to enhance efficiency and recovery.

Our waste management activities also have the potential to impact on the environment and public health. Landfills generate leachate, greenhouse gas emissions, odour and wind-blown litter and we will continue to improve our operational practices to maintain a high standard of environmental performance.

TARGETS

By 2022, we will have:

- Installed a weighbridge at Laidley Landfill;
- Nil material environmental harm events at Council waste facilities;
- Developed a consistent approach to reporting waste diversion data and a set of key performance parameters to measure business environmental, operational and financial performance.

ACTION	DETAIL
3.1	<p>Implement best practice data collection and reporting</p> <ul style="list-style-type: none">• Install a weighbridge at Laidley Landfill;• Establish a consistent approach to measuring waste diversion and implement a business process to capture and report date.
3.2	<p>Implement best practice landfill management</p> <ul style="list-style-type: none">• Survey compaction performance at suitable intervals (i.e. six-monthly) at Gatton Landfill and undertake training as required to improve compaction performance.• Maintain compliance with environmental approvals.• Actively manage the generation of leachate and continuously seek best options for treatment.
3.3	<p>Maintain full cost pricing model</p> <ul style="list-style-type: none">• Annual review of the “waste business” full cost pricing model.• Annual review of the 10-year capital works plan and delivery of the yearly plan.• Develop and implement an asset management plan to guide optimal renewal of assets.

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IMPLEMENTATION PLANNING

DELIVERY TIMELINE

The following table outlines the actions and timeline for delivery.

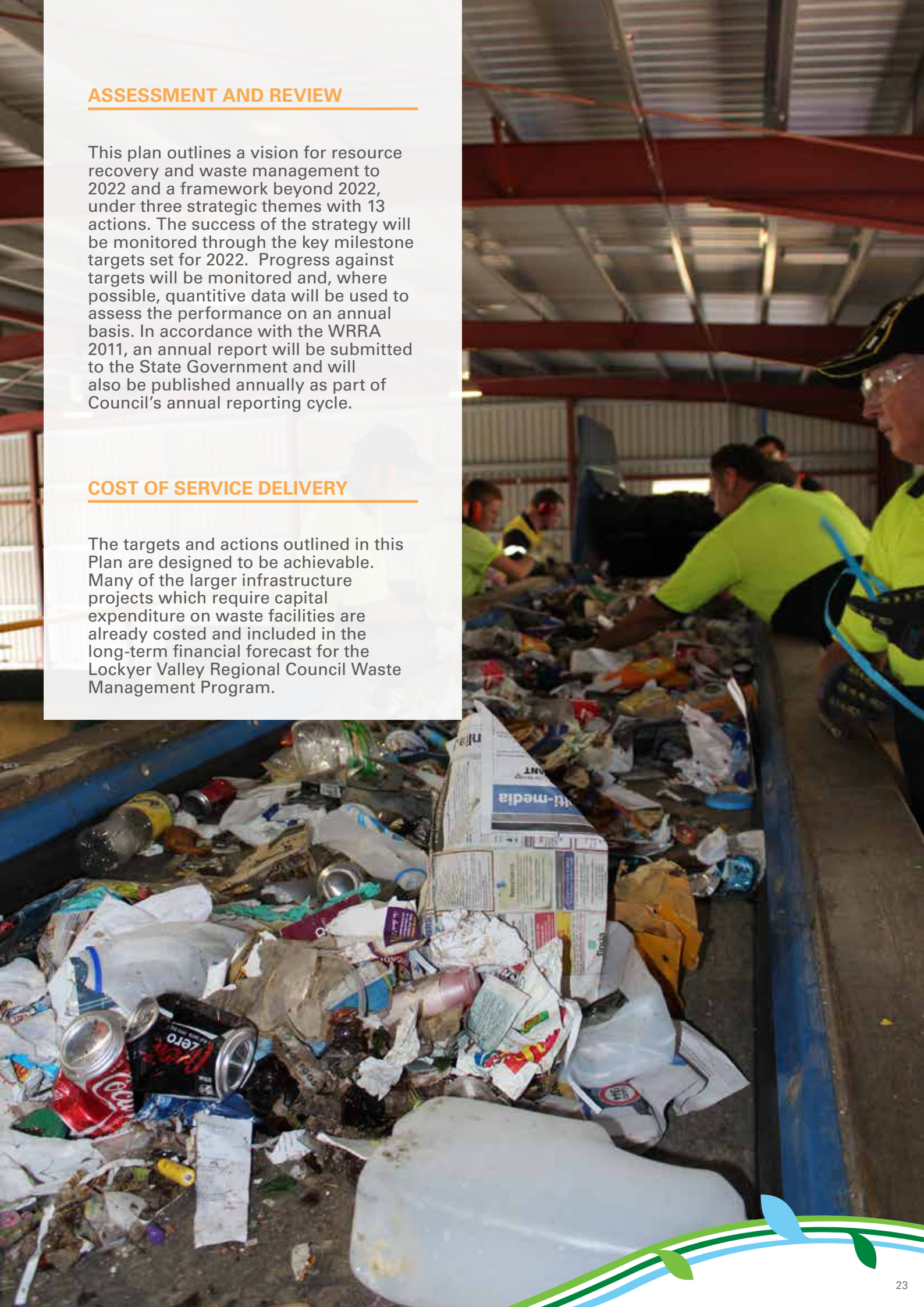
<i>STRATEGIC ACTION</i>		<i>DELIVERY TIMEFRAME</i>			
		2019	2020	2021	2022
1. Planning future waste infrastructure					
1.1	Maintain landfill security for the region				
1.2	Develop Gatton waste management facility as the primary waste management site for the region				
1.3	Laidley Landfill master planning				
1.4	Develop waste facilities that meet future community expectations				
1.5	Develop final capping and closure construction program for all "non-active" landfills				
1.6	Kerbside collection contract				
2. Improve waste diversion and resource recovery					
2.1	Increase resource recovery at waste facilities				
2.2	Establish gate fee pricing incentives that encourages resource recovery				
2.3	Council to promote waste reduction and diversion in the way it conducts its activities				
2.4	Monitor the feasibility of alternative waste treatment				
2.5	Waste education				
2.6	Regional collaboration				
3. Operational efficiency and compliance					
3.1	Implement best practice data collection and reporting				
3.2	Implement a high standard of landfill management				
3.3	Maintain full cost pricing model				

ASSESSMENT AND REVIEW

This plan outlines a vision for resource recovery and waste management to 2022 and a framework beyond 2022, under three strategic themes with 13 actions. The success of the strategy will be monitored through the key milestone targets set for 2022. Progress against targets will be monitored and, where possible, quantitative data will be used to assess the performance on an annual basis. In accordance with the WRRRA 2011, an annual report will be submitted to the State Government and will also be published annually as part of Council's annual reporting cycle.

COST OF SERVICE DELIVERY

The targets and actions outlined in this Plan are designed to be achievable. Many of the larger infrastructure projects which require capital expenditure on waste facilities are already costed and included in the long-term financial forecast for the Lockyer Valley Regional Council Waste Management Program.



A

APPENDIX A - PROGRESS ON THE WASTE REDUCTION AND RECYCLING PLAN 2012 - 2021

Progress on projects that were identified within the *Waste Reduction and Recycling Plan 2012-2021* is detailed in the table below. Some of the actions have not been completed and were assessed as part of this Plan. Where they were considered to be relevant, they have been included in the 2019-2022 Plan for continued progress.

ITEM NO	ITEM DESCRIPTION	STATUS
1	Develop waste targets policy within LVRC	Completed
2	Endorse DERM litter/dumping policy	Completed
3	Review Strategy performance and targets	Completed
4	Review of Waste Reduction and Recycling Plan	Completed
5	Provide DERM with annual reports	Completed
6	LVRC to provide public feedback on performance via Council Annual Reports	Completed
7	Investigation of future regional contract alignment for economy of scale in waste management activities	Completed
Waste Minimisation		
8	Develop waste education material to focus on sustainability, based on the regional resource kit on waste avoidance from SEQ Council of Mayors	Completed
9	Develop Council advocacy framework	Ongoing
10	Develop a plan for C&D recycling	Ongoing
11	Require a Waste Management Plan with all Development Applications	Completed
12	Assess waste minimisation using Quadruple Bottom Line (governance, social, economic and environmental sustainability) criteria	Ongoing
13	Promote national Extended Producer Responsibility schemes such as electronic waste with future drop off points	Ongoing
14	Develop sustainable procurement policy for Council	Not commenced
15	Incorporate hazardous household waste drop-off areas in new infrastructure and monitor collections for improvements	Ongoing



<i>ITEM NO</i>	<i>ITEM DESCRIPTION</i>	<i>STATUS</i>
Resource Recovery		
16	Conduct feedback campaign for performance and customer bin non-compliance	Completed
17	Invest in new public area recycling collection points	Not commenced
18	Review local and regional markets for commodities including organics	Ongoing
19	Review and trial options for recovery of resources and organics and use by community groups i.e. Men's Sheds/Community Gardens etc.	Ongoing
20	Investigate options to increase diversion of resources from bins	Ongoing
21	Monitor State and Regional Policy on Diversion	Ongoing
22	Review options for assisting business and industry to increase resource recovery	Ongoing
23	Deliver Infrastructure for bulk transfer and resource recovery review service levels	Completed
Energy Recovery		
24	Review available Energy from Waste (EfW) technologies	Ongoing
25	Monitor National Green House Gas (GHG) emissions targets and carbon capture performance	Ongoing
26	Annual Report on LVRC waste quantities and GHG emissions and Carbon Pollution Reduction Scheme (CPRS) Mitigation needs	Ongoing
Residuals disposal		
27	Develop medium term operations plan for Waste Services, including full cost pricing, hours of operation and service standards for waste facilities	Completed
28	Maximise landfill life and develop landfill closure plans, as required	Completed
29	Life Cycle Assessment of waste disposal services contract to select reserve landfill site	Completed
30	Monitor and report landfill tonnage & diversion rate using new standard waste datasets	Completed
31	Monitor any government or private regional landfill initiatives	Ongoing





B

APPENDIX B - LEGISLATION

FEDERAL GOVERNMENT

The Federal Government is working towards a better way to manage waste and is in the consultation phase to update the 2009 – National Waste Policy – Less waste, more resources by the end of 2018. The Federal Government has signalled a movement towards a circular economy approach, aligning with the Queensland Government approach. Council will continue to monitor federal legislation and align its policy and practices with federal initiatives.

At a national level there are a number of policies / legislative frameworks in place, including:

- The National Waste Policy;
- Australian Packaging Covenant;
- Clean Energy Future and associated legislation;
- Product Stewardship Act 2011 and associated regulations; and the
- National Computer and Television Recycling Scheme.

STATE GOVERNMENT

The Queensland Government, in March 2018 announced the development of a new waste strategy underpinned by a waste disposal levy to increase recycling and recovery of resources. This process has not been completed and Council will review the Queensland Government targets and principles as they become more defined and align this Plan to meet State targets. The new strategy will be articulated in the following key legislation:

- *Waste Reduction and Recycling Act 2011*
- *Waste Reduction and Recycling Regulation 2011*
- *Environmental Protection Act 1994*
- *Environmental Protection Regulation 2008*

LOCAL GOVERNMENT

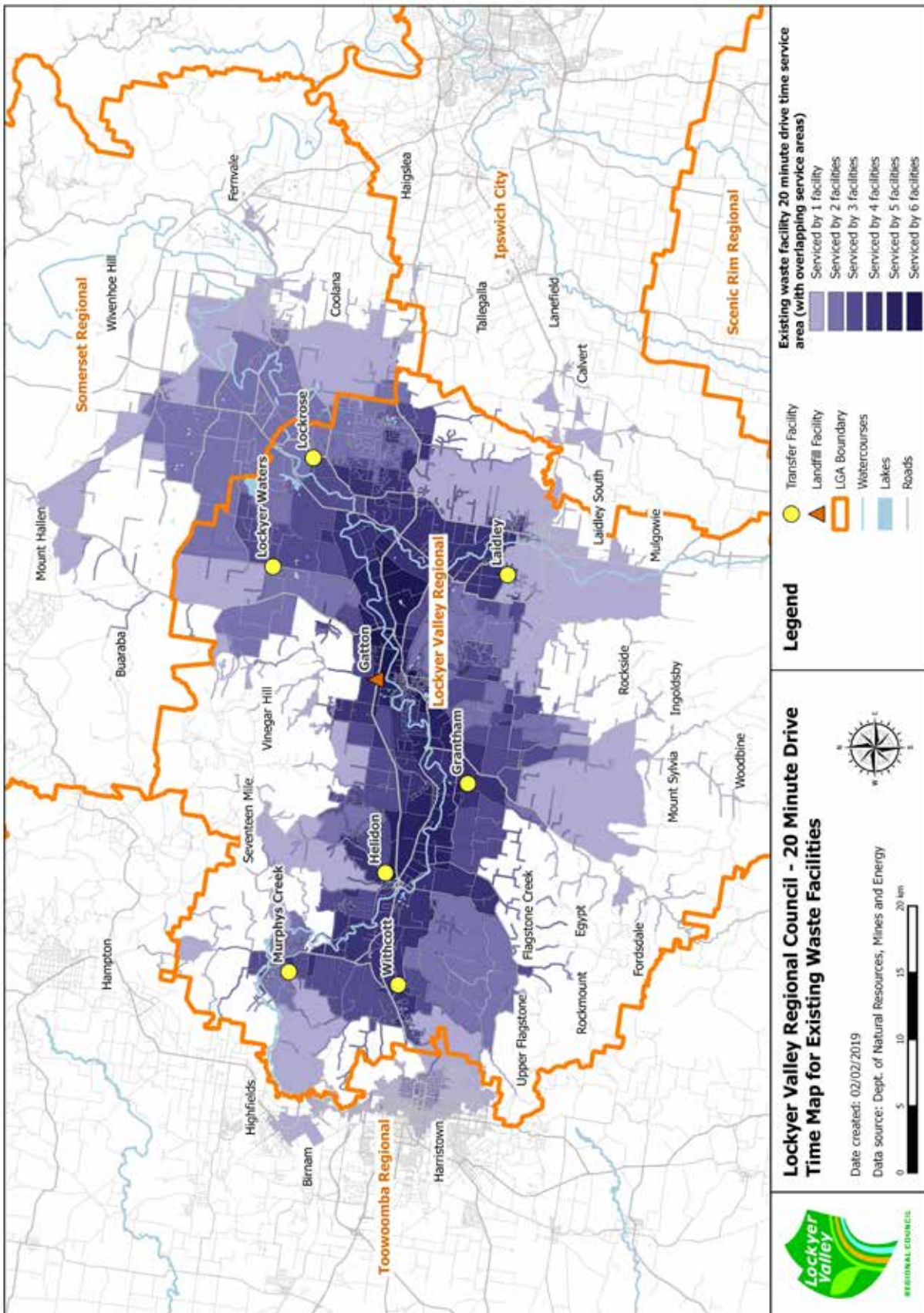
The object of Local Law No 7. (Waste Management) Section 7 of the *Waste and Recycling Regulation 2011* is to protect the public health, safety and amenity related to waste management and prevent and combat the spread of pests and disease within its Local Government area by:

- (a) regulating the storage, servicing, collection and removal of waste; and
- (b) regulating the disposal of waste at waste facilities; and
- (c) ensuring that an act or omission does not result in –
 - (i) harm to human health or safety or personal injury; or
 - (ii) property damage or loss of amenity; or
 - (iii) environmental harm or environmental nuisance; and
- (d) enabling Council to take enforcement action for contraventions of this Local Law.



C

APPENDIX C - DRIVE TIME ANALYSIS





Waste Collection

Sustaining our future

For more information phone **1300 005 872**,
email mailbox@lvrc.qld.gov.au or visit www.lockyervalley.qld.gov.au