

# **Application for authorisation to collaboratively procure recyclables processing services**

Gladstone Regional Council, Rockhampton Regional Council,  
Livingstone Shire Council, Central Highlands Regional Council and  
Banana Shire Council

# 1. Applicants for authorisation

## 1.1 Contact details

Name: Gladstone Regional Council (ABN 27 330 979 106), Rockhampton Regional Council (ABN 59 923 523 766), Livingstone Shire Council (ABN 95 399 253 048), Central Highlands Regional Council (ABN 79 198 223 277) and Banana Shire Council (ABN 85 946 116 646) (**the Participating Councils**) (together, the **Applicants**)

### **Gladstone Regional Council**

Address: Gladstone Regional Council  
101 Goondoon Street  
GLADSTONE QLD 4680

Telephone: (07) 4970 0700

### **Rockhampton Regional Council**

Address: Rockhampton Regional Council  
232 Bolsolver Street  
ROCKHAMPTON QLD 4700

Telephone: (07) 4932 9000

### **Livingstone Shire Council**

Address: Livingstone Shire Council  
25 Normanby Street  
YEPPOON QLD 4703

Telephone: (07) 4913 5000

### **Central Highlands Regional Council**

Address: Central Highlands Regional Council  
Corner of Egerton & Borilla Streets  
EMERALD QLD 4720

Telephone: (07) 4986 8493

### **Banana Shire Council**

Address: Banana Shire Council  
62 Valentine Plains Road  
BILOELA QLD 4715

Telephone: (07) 4992 9500

## 1.2 Contact persons

The Applicants consent to communication occurring via Gladstone Regional Council.

Name: Millicent Bradley Woods

Position: Legal Advisor

Telephone: (07) 4970 0700

Email: [REDACTED]

### 1.3 Description of business activities

The Applicants are statutory local government authorities established under the *Local Government Act 2009* (Qld). The Applicants have responsibility for doing everything necessary and convenient for the good rule and governance of their respective local government areas, including responsibility for conducting waste management and resource recovery services within their respective local government areas.

### 1.4 Email address for service

[REDACTED]

## 2. Details of the proposed conduct

### 2.1 Summary

The Applicants seek authorisation to:

- Jointly prepare and advertise an Invitation to Tender for the relevant Services (outlined below);
- Jointly evaluate tenders and enter into similar individual contractual arrangements with the successful tenderer for the relevant Services; and
- Collaborate during the term of the contractual arrangements in relation to the relevant Services.

(together the Proposed Conduct)

The Proposed Conduct is further detailed in section 2.2 below.

### 2.2 Description

#### 2.2.1 Overview of Proposed Conduct

##### *The Proposed Services*

The Applicants propose to jointly procure the following recyclables processing services:

- The collection of all recyclable waste from each Applicants' nominated transfer locations, which may include transfer stations and waste management facilities (depending upon the tenderer's proposed location of the Material Recovery Facility (**MRF**) or another innovative alternative, some of the Applicants may not require this service);
- The transport of the recyclable waste from the nominated transfer location to the MRF or another innovative alternative (depending upon the tenderer's

proposed location of the MRF/alternative, some of the Applicants may not require this service);

- The storage and sorting of all recyclable waste; and
- The subsequent processing, transport, marketing and sale of recyclable waste and disposal of any waste which is not recyclable waste.

(together, **the relevant services**)

The Applicants refer to a Material Recovery Facility (**MRF**) throughout this application. The Applicants use the term MRF for ease but include the option of either a MRF or any other innovative alternative which adequately provides recyclables processing services to the Applicants (as set out in the proposed services above).

### ***The Proposed Procurement Process***

The Applicants propose to:

1. Jointly prepare an Invitation to Tender, including:
  - The terms of the contract to be released with the joint Invitation to Tender particularising terms in relation to the services to be provided; and
  - The Scope of Work.
2. Advertise and release the Invitation to Tender via Rockhampton Regional Council's QTender portal (at a minimum);
3. Following the Invitation to Tender deadline:
  - Jointly assess and evaluate tenders received in accordance with the sound contracting principles under section 104 of the *Local Government Act 2009* (Qld);
  - Jointly negotiate (with elements of individual negotiation where needed, noting there may be some need for regional variance) and enter into individual contracts with the successful tenderer on similar terms - the Applicants may separately negotiate certain terms to accommodate regional context in terms of transportation of the waste to the MRF location; and
  - Jointly make decisions in relation to contractual variations during the term of the contracts.

Further information in respect of the relevant services is set out in section 5.1 below.

#### **2.2.2 Overview of Recyclables Processing**

Each of the Applicants, with the exception of Banana Shire Council, currently recover potentially recyclable material through kerbside recycling. Banana Shire Council recovers paper and cardboard recyclable material (and no other recyclable waste streams) through kerbside recycling offered to residents throughout the Banana Shire Council local government area, and some businesses in the Taroom township.

Once collected individually, kerbside recyclable waste is transported to a MRF where it is combined and subsequently sorted, recovered and managed. At a MRF, materials may undergo mechanical treatment for sorting by characteristics such as weight, size, magnetism and optical density and further cleaning and compression.

There are a limited number of MRFs within Queensland. The MRFs established in Queensland, their ownership and capacity to take on additional recyclables is set out in Table 1 below.

**Table 1: MRFs in Queensland**

<b>Facility</b>	<b>Ownership/Operation</b>	<b>Excess capacity to process the Applicants' recyclable waste</b>
Bundaberg MRF	Local Government owned and operated by Social Enterprise – Impact Community Services Limited (ABN 42 950 261 731)	No
Hervey Bay MRF	Commercial – Cleanaway (ABN 79 000 164 938)	No
Murgon/Cherbourg MRF	Local Government owned and operated	No
Mackay MRF	Local Government owned and operated by Commercial – Re.Group Pty Ltd (ABN 76 616 439 779) ( <b>Re.Group</b> )	Limited
Townsville MRF	Commercial – Re.Group Pty Ltd (ABN 76 616 439 779)	Limited
Sunshine Coast MRF	Local Government owned	No
Gibson Island (Brisbane) MRF	Commercial – Visy Recycling Australia Pty Ltd (ABN 46 118 295 239) ( <b>Visy Gibson Island</b> )	Yes
Cairns MRF	Local Government owned and operated	Limited

In addition to the MRFs identified above, the Rockhampton MRF, which is owned by Kriaris Transport Pty Ltd (ACN 093 090 987), was destroyed by a fire on 10 November 2020. As at the date of submitting this Application, the Rockhampton MRF is currently not operational.

### **2.2.3 History of the Applicants' arrangements with respect to Recyclables Processing**

#### ***Historical arrangements for recyclables processing within the Rockhampton Regional Council, Livingstone Shire Council, Central Highlands Regional Council and Gladstone Regional Council local government areas***

Until 31 December 2020, each of the Applicants, excluding Banana Shire Council, had separate contracts with Opal Packaging Australia Pty Ltd (ACN 636 682 883) (**Opal**). Opal sub-contracted Kriaris Transport Pty Ltd (ACN 093 090 987) (**Kriaris**) to provide the relevant services. As discussed in 2.1.2 above, Kriaris owns the Rockhampton Materials Recovery Facility (the **Rockhampton MRF**).

On 22 July 2020, the Applicants, excluding Banana Shire Council, lodged an application seeking non-merger authorisation in respect of joint procurement of recyclables processing services under section 88(1) of the *Competition and Consumer Act 2010* (Cth). On 21 October 2020, the Australian Competition and Consumer Commission (**ACCC**) granted authorisation (Authorisation Number AA1000524) to enable the Applicants, excluding Banana Shire Council, to enter into

and give effect to contracts, arrangements or understandings regarding the joint procurement of recyclable processing services from Kriaris for a period of three years, until 31 December 2023.

Between the evening of 9 November 2020 and 10 November 2020, the Rockhampton MRF was destroyed by fire. As a result, the Applicants have each entered into separate emergency contracts for the transport of recyclable waste to the Mackay MRF and the Visy Gibson Island MRF. Currently the Rockhampton MRF is not operational. A decision on whether the MRF will be reconstructed by Kriaris is dependent on the outcome of their insurance application. If the Rockhampton MRF is reconstructed, the Applicants, excluding Banana Shire Council, will each enter into respective contracts with Kriaris to undertake recyclables processing under Authorisation Number AA1000524.

In preparation for the end of each of the contracts entered into under Authorisation Number AA1000524 which are subject to reconstruction of the Rockhampton MRF, the Applicants, including Banana Shire Council, propose to jointly invite tenders in respect of the relevant services and to jointly undertake subsequent tender evaluation processes and contract negotiations.

### ***Historical arrangements for recyclables processing in the Banana Shire Council local government area***

Banana Shire Council has never provided a full recyclables kerbside collection and processing service. Banana Shire Council instead provides a kerbside paper and cardboard recyclables collection service to residential premises within townships and a paper and cardboard recyclables collection service to businesses in the Taroom township. Once collected, paper and recyclables collected are transported to the Biloela Transfer Station which is operated by a private sector contractor, Biloela Recycling, under contractual arrangements which expire in mid-2023. Biloela Recycling has an independent contract in place with Visy Gibson Island for the processing of the paper and cardboard recyclable waste (such contract is not the subject of this application). The Taroom Transfer Station, which opened in the two weeks prior to submission of this Application, will also have the capacity to process glass and plastic recyclable waste, however no plans for processing have presently been made in relation to those recyclable waste streams.

#### **2.2.4 Conduct to be authorised**

Authorisation is sought for the Applicants to jointly tender, evaluate, enter into and give effect to contracts, arrangements or understandings regarding the joint procurement of the relevant services at a MRF located within the Applicants' combined local government area, a MRF located outside of the Applicants' local government area or another innovative solution, as described above, on the basis that the proposed conduct will result in a net public benefit.

The ACCC has previously granted authorisations to various local governments in Victoria and New South Wales waste and resource recovery groups and local councils for the joint procurement of multiple waste and resource recovery service streams in similar circumstances.<sup>1</sup> In addition, the ACCC has also previously granted

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<sup>1</sup> In Authorisations A91596 and A91597, the ACCC granted the Loddon Mallee Waste and Resource Recovery Group and eight Victorian councils authorisation in relation to the joint procurement of certain waste and resource recovery services. In Authorisation A91551, the ACCC granted authorisation to the North East Waste and Resource Recovery Group and several councils in North

authorisation to the Applicants, excluding Banana Shire Council, for the joint procurement of recyclables processing services.<sup>2</sup>

## 2.3 Relevant provisions of the *Competition and Consumer Act 2010* (Cth)

The relevant provisions of the *Competition and Consumer Act 2010* (Cth) (**the CCA**) which could or might apply to the proposed conduct are:

- Sections 45AF, 45AG, 45AJ and 45AK in relation to cartels;
- Sections 45(1)(a) and (b) in relation to anticompetitive agreements; and
- Section 45(1)(c) in relation to concerted practices.

## 2.4 Rationale

### **Objectives**

The overall rationale for the proposed collaborative procurement process is to enable the Applicants to effectively and efficiently access the relevant services in the Applicants' combined local government area, or in accordance with any other innovative/competitive tender received, to achieve economies of scale, reduce administrative complexities and to improve the price and quality of those services to the community.

In that context, the key objectives of the proposed collaborative procurements are to:

- Create the economies of scale required for resource recovery activities in circumstances where:
  - the gate fee is determined by reference to the input tonne (the price is decreased as input tonnes are increased); and
  - economies of scale are needed to attract a commercial business to provide the relevant services, if that is cost effective within the Applicants' combined local government area;
- Facilitate resource sharing and efficiencies;
- Enable the Applicants to improve practices in order to increase resource recovery;
- Increase the diversion of waste from landfill;
- Decrease landfill airspace consumption, therefore, extending the life of landfill/s and deferring related major capital expenditure in new cells;
- Meet Strategic Targets under the Queensland Waste Management and Resource Recovery Strategy (Queensland Waste Strategy);
- Build a circular economy through resource recovery activities;
- Facilitate the increased recovery of household recyclable waste; and
- Reduce exposure to the cost impact of the landfill levy by diverting landfill from waste, once the State Government subsidisation of domestic waste is reduced or ended.

### **Policy context**

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Eastern Victoria in relation to the joint procurement of multiple waste and resource recovery and processing services. In AA1000453-1, the ACCC granted authorisation to the Goulburn Valley Waste and Resource Recovery Group and several Councils in the Goulburn Valley Region of Victoria in relation to the joint procurement of multiple waste and resource recovery services.

<sup>2</sup> Authorisation AA1000524.

The proposed collaborative procurement is also consistent with the Queensland State Government's Strategy and legislative intent in respect of waste and resource recovery, as outlined below:

- The *Waste Reduction & Recycling Act 2011* (Qld) sets out the overarching regulatory framework for waste and resource recovery in Queensland. The Explanatory Notes to the *Waste Reduction and Recycling (Waste Levy) and Other Legislation Amendment Bill 2018* (Qld), which received royal assent on 21 February 2019, state that the purpose of the amendments was to introduce a waste levy that:
  - Acts as a price signal that encourages waste avoidance and resource recovery behaviours, and discourages disposal to landfill as the first option;
  - Provides a source of funding for programs to assist local government, business and industry to establish better resource recovery practices, improve overall waste management performance and sustain Queensland's natural environment;
  - Provides certainty and security of feedstocks for advanced resource recovery and recycling technologies and processing; and
  - Facilitates industry investment in resource recovery infrastructure.
- The Queensland Resource Recovery Industries 10-Year Roadmap and Action Plan released in August 2019 and the Resource Recovery Industry Development Program developed under the Action Plan state that the focus is to support the development of projects that divert waste from landfill, reduce stockpiling, and encourage activities that facilitate waste avoidance and increase recycling activities. The Action plan recognises that solutions for resource recovery will need to respond to the specific issues faced by regional communities and local governments, including the very different market dynamics to those of the heavily populated South East Queensland region.

## 2.5 Term

Authorisation is sought for a total period of nineteen (19) years commencing on authorisation and ending on 30 January 2041, comprising:

- An initial period to conduct the collaborative procurement process for the relevant services, including release of the invitation to tender, evaluation of tender responses and the negotiation and execution of the contracts, allowing time for a new proponent to establish and mobilise a MRF, if required; and
- The remaining period of the term for each of the parties to enter into contractual arrangements with the service provider, including any options to extend the initial term of the contract.

The rationale for a long contract term is to generate greater market competition by:

- Encouraging tenders from a wider range of tenderers, including those that are prepared to purchase or lease land and construct a MRF in the Applicants' broader local government area or to alternatively propose another innovative or competitive solution;
- Maximising opportunities for tenderers to achieve return on investment, noting the significant initial capital costs related to:
  - the purchase or lease of land;
  - building construction;



- the purchase of fixed and mobile plant and equipment; and
- business set-up and mobilisation;
- Incentivising greater investment in new recycling and processing technology and infrastructure, leading to increased recovery of recyclable waste;
- Incentivising innovation in securing markets for recyclable waste which may not currently exist; and
- Reducing risk to the tenderer associated with fluctuations in recyclable commodity prices, enabling fluctuations to be shared and adjusted over the life of the contract.

A contract term in excess of 10 years will also enable the Applicants to receive the benefit of spreading capital costs over the initial contract term (through recovery of costs of building the MRF via the gate fee if the successful tenderer is required to construct a new MRF), with the gate fee significantly reducing over the course of the option period. By way of illustration, based on a MRF build cost of \$8.7million (excluding land purchase costs, ancillary building and office costs, installation of a weigh bridge and power connection):

- Over the course of a ten (10) year contract term, the depreciation will be calculated on \$8.7million divided by 10, which is equivalent to \$870,000 per annum or \$79.00 per tonne in depreciation costs per year, based on the MRF processing 11,000 tonnes per annum; compared with
- Over the course of a five (5) year contract term, the depreciation would be calculated on \$8.7million divided by 5, which is equivalent to \$1,740,000 per annum or \$158.00 per tonne in depreciation costs per year, based on the MRF processing 11,000 tonnes per annum.

### ***Request for Interim Authorisation***

The Applicants request the ACCC grant interim authorisation when a draft determination is issued.

Interim authorisation is sought to enable collaboration and negotiation between the Applicants to commence preparing the tender and contract terms prior to the release of the invitation to tender.

The Applicants intend to release an invitation to tender to the public in approximately February/March, 2022 (subject to ACCC approval).

Dependent on whether the Rockhampton MRF will become operational to fulfil existing contracts, there may be some urgency in releasing the tender to ensure the Applicants are able to continue to effectively deal with recyclable waste and to ensure a local MRF is operational as soon as possible.

## **3. Relevant documents**

Key documents relevant to assessing or making a declaration include:

- Gladstone Regional Council Waste Management and Resource Recovery Strategy 2019 (Annexure A)
- Rockhampton Regional Council Regional Waste Strategy 2020-2030 (Annexure B)
- Livingstone Shire Council Strategy for Resource Recovery & Waste (Annexure C)

- Central Highlands Regional Council Amended Waste Reduction and Recycling Plan (Annexure D)
- Banana Shire Council Waste Management Strategy Submission (Annexure E – **Confidential Attachment**)
- Central Queensland Regional Waste Working Group Draft Terms of Reference (Annexure F – **Confidential Attachment**)

#### 4. Names or classes of persons who may be directly impacted

##### *Names or classes or persons who may be directly impacted by proposed conduct*

The persons that may be directly impacted by the proposed joint procurement are as follows:

- Kriaris (the existing provider of the relevant services to each of the Applicants);
- Visy Gibson Island and Re.Group who currently receive the Applicants' recyclable waste;
- Any other potential tenderers who wish to provide the relevant services;
- Each of the Applicants' ratepayers;
- The local commercial waste service industry who provide commercial waste collection services across the region;
- The general commercial and industrial sectors who wish to have their recyclables recycled rather than disposed to landfill; and
- Container Exchange who currently have the local regional eligible containers from the Container Refund Scheme processed locally.

Kriaris will not be precluded from submitting a tender.

#### 5. Market information

##### 5.1 Services

The Applicants, through separate contracts which are not the subject of this Application for Authorisation, provide domestic kerbside recyclable waste collection services within their respective local government areas. The domestic kerbside recyclable waste is then transported to a MRF.

The proposed relevant services are described in further detail below:

- **Recyclables transport services:** The service provider collects the recyclable waste and transports the recyclable waste to the MRF for acceptance and sorting.
- **Recyclables acceptance and sorting:** The service provider is responsible for the receipt of recyclable waste and the subsequent storage, sorting and processing. Recyclable waste is sorted into various recyclable waste streams.
- **Subsequent marketing and sale of recyclable waste:** The service provider is responsible for the transport and marketing of the recyclable waste once processed. Markets are typically located in the capital cities of Brisbane and Sydney and/or internationally. The Applicants typically do not separately seek to market individual waste streams themselves, as they each outsource

sorting and the economies of scale to make recycling of individual waste streams economically viable do not exist on an individual level.

- **Residual waste disposal:** Residual waste that cannot be recycled or recovered is transported to landfill for burial and the waste levy applies to this waste.

## 5.2 Geographic areas

In previous determinations regarding authorisation applications for the joint procurement of waste and resource recovery services by local government, the ACCC has not considered it necessary to precisely define the relevant geographic market. For the purposes of this authorisation application, the Applicants consider that the relevant area of competition is at least as large as the market for the supply and acquisition of services relating to the transport, sorting, processing and/or disposing of residual waste, recyclables and organic waste in each of the Applicant's local government areas, and surrounding areas. The region has a total area of over 117,256 square kilometres and a population of over approximately 225,859 as at 30 June 2019 which is projected to increase to 265,353 by 2041.<sup>3</sup> The geographic location of the region is depicted in Figure 1 below.

**Figure 1: Map of Applicants' local government areas**



<sup>3</sup> Queensland Government Statisticians Office, 2 July 2020

### 5.3 Extent of the Applicants' Overlap

The Applicants relevantly overlap in the acquisition of waste and resource recovery services in the Central Queensland region, as bordering local government areas.

### 5.4 Industry

The relevant industry is the waste and resource recovery industry in the local government areas of Rockhampton, Gladstone, Livingstone, Central Highlands and Banana and more recently in the greater Queensland region. At a local level, that industry involves the following supply chain:

- **Collection:** The Applicants (excluding Banana Shire Council), through separate contractual arrangements not the subject of this Application for Authorisation, collect recyclable waste from households and businesses as part of their kerbside collection services. Current contractual arrangements for those kerbside collection services are not disclosed for the purpose of this Application. Banana Shire Council collects paper and cardboard recyclable waste only as part of its kerbside collection services from households in the majority of its main townships.
- **Transport:** The recyclable kerbside collection waste is transported to the MRF which separates and consolidates recyclable waste for further processing. Residual waste is disposed of to landfill. Prior to the destruction of the Rockhampton MRF by fire, excluding Banana Shire Council, the Applicants had the following 'ordinary time' transport arrangements:
  - Rockhampton Regional Council and Livingstone Shire Council contracted their kerbside collection service provider to drive each full collection vehicle to the MRF.
  - Gladstone Regional Council's waste collection contractor previously direct hauled each full collection vehicle to the MRF under an arrangement negotiated between the existing recyclables processing contractor and the waste collection contractor.
  - Central Highlands Regional Council previously contracted Kriaris Transport to bulk haul recyclable waste from the Nominated Transfer Location in Central Highlands Regional Council to the MRF. Haulage services were provided on a twice-weekly basis.

Since the destruction of the Rockhampton MRF by fire, excluding Banana Shire Council, the Applicants have undertaken the following transport arrangements:

- Rockhampton Regional Councils' recyclable waste is bulk hauled in part to Re.Group in Mackay (3,278 tonnes) and in part to Visy Gibson Island in Brisbane (1,300 tonnes) given Re.Group's limited capacity;
- Central Highlands Regional Council and Livingstone Shire Councils' recyclable waste is bulk hauled to Re.Group in Mackay; and
- Gladstone Regional Councils' recyclable waste is bulk hauled to Visy Gibson Island in Brisbane.

Banana Shire Council does not presently directly handle the transport of paper and cardboard recyclable waste collected, instead that waste is transported to Visy Gibson Island under a contract with the private operator of the Biloela Transfer Station.

- **Receiving, sorting, processing and disposal of residual waste:** In order for kerbside recyclable waste to be sorted into the various categories, the MRF ordinarily applies the following steps;

- Material enters a sort line and residual waste is removed;
- Material travels over a disc screen where material is sorted into two-dimensional items such as paper and cardboard from three-dimensional items such as containers.
- Paper and cardboard are directed to the baler for baling.
- Glass – is crushed and further processed at the glass plant for use in the local region.
- Plastics, steel and aluminium travel past the magnetic belt and optical sorter and removed respectively for baling.

Except for glass, which is processed through the glass plant, all materials are baled into saleable commodities and transported to markets.

- **Onsite re-processing facilities for glass waste streams:** Re-processing facilities for glass receive and change the physical structure and properties of glass waste materials, in order to increase their beneficial use and financial value. Non-glass waste recyclable streams are sent to offsite re-processing facilities.
- **Residual waste disposal:** Residual waste that cannot be recycled or recovered is transported to landfill. All of the Applicants operate landfills under their respective environmental authorities, however waste from the MRF pre-fire was transported to the Rockhampton Waste Management Facility located at 252 Lakes Creek Road, The Common, Rockhampton, due to proximity of this facility to the MRF, this may change under the proposed conduct depending on the location of the MRF. Post-fire, residual waste is being transported to landfill facilities in Mackay and Brisbane.

## 6. Market shares

Table 2 below sets out the approximate annual volumes for kerbside recyclable waste (including contaminants) collected by each of the Applicants:

**Table 2: Kerbside Recyclable Waste Volumes (January 2020 to December 2020)**

<b>Council</b>	<b>Kerbside Recyclable Waste (tonnes)</b>
Gladstone Regional Council	3,398
Rockhampton Regional Council	4,578
Livingstone Regional Council	1,944
Central Highlands Regional Council	1,112
Banana Shire Council	Estimated based on averages of the other Councils to be 738 for a full recyclables service
<b>Total</b>	<b>11,770</b>

## 7. Competitive constraints

### 7.1 Existing competitors

The Applicants, as well as other local governments in other local government areas in Queensland more broadly, may be considered to be competitors in the procurement of the relevant services in the Central Queensland region and adjacent areas.

Prior to the fire which destroyed the Rockhampton MRF, there was one existing MRF in the Applicants' combined local government area. The Rockhampton MRF is currently non-operational.

## 7.2 Likely entry by new competitors

### 7.2.1 New Local Government Competitors

A change to local government competitors will only occur if the State Government considers further amalgamation or de-amalgamation of Councils, it is understood that the State Government has no current intention. With the exception of Woorabinda Aboriginal Shire Council who presently do not provide recyclables waste collection, many local governments further afield own and operate MRFs for their own recyclables processing purposes.

### 7.2.2 New Recyclables Processing Competitors

To give new competitors the opportunity to enter the market for the Applicants' combined recyclable waste, a tender process with a minimum lead in time of two (2) to three (3) years is provided to:

- Provide opportunity for contract drafting, legal review, preparation of invitation to tender, release of tender and tender assessment and award;
- If purchase of an existing site is required, ensure sufficient time for transfer transactions, licence applications and re-commissioning; and
- If establishment of a new greenfield site is required, ensure sufficient time for the identification of new site(s), lock in of investment and lending arrangements, construction and commissioning of the MRF itself in addition to any associated land acquisition and application for development approvals.

### 7.2.3 Barriers to entry by new Recyclables Processing Competitors

The barriers to entry by new recyclables processing competitors are as follows:

- **Significant Initial Capital Investment:** A MRF with a processing capacity of 11,000 tonnes per annum with glass beneficiation is estimated to cost between \$9 million to \$12 million to construct;
- **Economies of Scale:** A MRF with a processing capacity of less than 11,000 tonnes per annum is not viable; and
- **Challenges of Distance:** Regional areas such as Central Queensland are also faced with long haul distances which significantly increase inbound transport costs and impact on profit margins secured through gate fees.

It is anticipated that a new competitor would not make such a significant capital investment (either within the Applicants' combined local government areas or outside of that area) without a return on investment that would be achieved through viable economies of scales (i.e. in excess of 11,000 tonnes per annum) and a long-term contractual agreement. The Councils seek to reduce barriers to entry by new Recyclables Processing Competitors through the proposed conduct.

## 7.3 Countervailing power of Service Providers

There are moderate to high barriers to entry in the waste and resource recovery industry. In respect of recycling services, entry into the market and investment in capital is highly dependent on a service provider's abilities to secure long-term supply contracts and sufficient volumes of recyclable waste – this can be difficult for service providers that operate in regional locations such as Central Queensland (where large volumes of recyclable waste may not be available, population density is lower, and

transport costs are typically higher due to higher travel distances). Barriers to entry are arguably higher in respect of residual waste disposal services, as the establishment of new landfills is strongly discouraged by various Queensland Government policy and legislative frameworks, with only Central Highlands Regional Council and Banana Shire Council expected to construct a new landfill within the next decade.

For the reasons outlined above, existing service providers in the industry are able to exercise significant countervailing power in negotiating the delivery of services to the Applicants.

## **8. Counterfactual**

### **8.1 Counterfactual summary**

The Applicants have not formed a final view on the appropriate counterfactuals should the proposed conduct not be authorised. However, the Applicants have outlined potential counterfactuals which would result from the Applicants releasing separate invitations to tender, seeking supply of the relevant services either a local MRF or processing at a MRF outside of the combined local government areas, as follows:

1. The same tenderer would be selected individually by each of the Applicants to operate a local MRF; and/or
2. Based on there being no economies of scale and certainty in relation to feedstocks existing to justify the initial capital investment in a local MRF, no competitive tenders are received for a local MRF; and/or
3. Different tenderers would be selected by each of the Applicants for MRFs outside of the combined local government area and the Applicants would have no ability to aggregate transport costs; and/or
4. The Applicants opt to tender for bulk haul arrangements at established MRFs, which would preclude new market players from presenting a viable regional or state-based opportunity for processing and sorting – increasing opportunities for new market players to participate in the tender process through the proposed conduct will undoubtedly increase competition.

Or any combination of the above – noting that the Applicants may each take different approaches.

The Applicants have formed the view that the above counterfactuals are reasonably possible, given:

- the geographic position of each of the Applicants and the distance from any MRF outside of their collective local government areas, combined with low resident populations when each of the Applicants are considered in isolation, which may not justify transport of their recyclable waste further afield, when considered in isolation; and
- the current conduct of the Applicants in the aftermath of the Rockhampton MRF being destroyed by fire, which would indicate that Counterfactual 4 may be most likely.

### **8.2 Further detail in relation to each of the Counterfactuals**

If the same tenderer is selected individually by each of the Applicants (regardless of the location of the MRFs), without the proposed joint procurement:

- Each of the Applicants (and their ratepayers) would incur additional transaction costs; and
- There would be an added administrative burden for the ultimately successful tenderer in relation to both preparation of tenders and contract management/administration.

If there is little to no market interest, it is likely that:

- Lower market competition caused by reduced economies of scale may result in tender responses received by each of the Applicants being significantly higher in terms of the gate fee proposed and outside of budgetary constraints – this may make recyclables processing non-economically feasible. As a result, some Applicants may need to divert recyclable material to landfill.
- In addition, if the Applicants were unable to enter into the proposed conduct, resulting in there being no incentive for establishment of a local MRF (if supported by the market), there would be:
  - An inevitable impact on other local businesses/organisations that have previously used the Rockhampton MRF but do not generate enough recyclable waste to provide feedstock for a commercially viable MRF when their waste is considered alone; and
  - Reduced opportunities for employment through new locally based recycling industries.

The Applicants' could individually seek to tender for similar bulk haul arrangements to MRF locations, including in Mackay (Re.Group) and Brisbane (Visy Gibson Island). Without further market engagement, it is difficult to project what the costs of this arrangement continuing in the long-term may be. However, the current bulk haul arrangements involve transporting the recyclable material a greater distance for processing, with associated emissions consequences which could be avoided through the generation of economies of scale required to establish a local MRF (if supported by the market).

The risks associated with any of the counterfactuals are significantly elevated for some Applicants, for whom it may not be economically viable to negotiate individually – in particular:

- Banana Shire Council, an Applicant who presently does not provide a full kerbside recycling collection service (limited to paper and cardboard recyclable waste only) and who is, without the pooled recyclables processing knowledge of the other Applicants and economies of scale generated by the proposed conduct (when taking into account its comparatively low volumes), anticipated to face challenges in releasing a tender for the Services. As a result, Banana Shire Council may be inhibited from increasing its current recyclable waste offer, beyond paper and cardboard processing, resulting in greater amounts of potentially recoverable recyclable waste ultimately ending up in landfill; and
- Central Highlands Regional Council, Livingstone Shire Council and Banana Shire Council, the Applicants with the smallest recyclable waste volumes, may elect not to provide a full resource recovery solution to their respective communities due to difficulties in attracting a commercial business interested in providing such a service as a result of uneconomical economies of scale. As a result, the volume of recyclable waste generated by each of these Councils would be considered by prospective tenderers in isolation and without the benefit of the larger Councils higher recyclable waste volumes.



When considered in isolation, there is a significant risk that there would be little to no market interest from potential tenderers to process such small volumes.

## **9. Public benefits**

The proposed collaborative procurement will result in significant and sustained improvements to community welfare in each of the Applicants' local government areas and surrounding areas in the form of transaction and other cost savings, economies of scale and environmental benefit efficiencies by diverting waste from landfill and increasing resource recovery.

### **9.1 Opportunity for a local MRF facility**

Under the arrangements for the Services which are in place at the time of submitting this Application, the costs of outbound transport of recyclable waste to the respective MRFs in Mackay and Gibson Island (Brisbane) account for over 50% of the overall costs of undertaking recyclables processing, borne by the Applicants (excluding Banana Shire Council). Any increase in the distance required for transport of recyclable waste to alternative MRF locations outside of the collective region will inevitably increase the cost and carbon miles required for the transport of waste and it may be cost prohibitive for the Applicants to transport their recyclable waste further north. In addition, many alternative MRF locations are currently operating at or near capacity and may not be able to accommodate the processing of additional waste from the Applicants' local government areas. While the Applicants (excluding Banana Shire Council) are continuing to process recyclables at an increased cost (when compared with projected local processing options prior to the destruction of the Rockhampton MRF by fire), the Applicants are only able to absorb the increased costs in the short term. As the Applicants have no post-fire comparison, it is not known whether a re-constructed or greenfield MRF established within the combined local government area would result in the best value for money for each of the regions' ratepayers and this would be unable to be tested against out of town market options if the proposed conduct is not authorised. For clarity, the proposed conduct seeks to test both the local and broader Queensland market for the most competitive option for the relevant services.

The Applicants also submit that a local MRF facility is not only beneficial for the Applicants and the local area but also for the Queensland recycling industry generally. At present, with no local MRF facility operating, there are less MRF facilities across the State and each MRF is servicing a greater number of local governments and businesses. If another MRF becomes non-operational, there is a significant increase in risk to the entire State. Any disruption to a single MRF will impact a greater number of local governments and businesses relying on MRFs for continuity of recyclables processing service provision. An additional MRF in Queensland somewhat insulates the Queensland recycling industry from some risk and generates greater market health.

In the longer term, without a local MRF facility:

- All potentially recyclable waste collected from the some Applicants' local government areas may be unable to be processed and may end up in landfill – this will have environmental impacts and is contrary to all Local and State Government waste strategies and policies which encourage resource

recovery through recyclable processing and attempts to divert waste from landfill;

- Those Applicants who continue to provide a recyclable waste processing service may incur significantly higher costs associated with transport of recyclable waste to MRF locations a greater distance away; and
- In addition, if a local MRF does not continue to operate, there would be an inevitable impact on other local businesses/organisations that use the MRF. Prior to the fire at the MRF, these businesses/organisations relied on the Applicants to generate the feedstocks required to support the MRF and ensure that the MRF remains in operation.

## 9.2 Stimulating competition and generating economies of scale

The proposed conduct will break down the barriers to new competitors entering into the market by generating sufficient economies of scale and long-term contractual certainty required to incentivise the significant initial capital investment in a local MRF. In particular, the proposed conduct will result in:

- **Sharing of fixed costs:** The proposed conduct will result in the fixed costs of transport and operating the MRF being spread over a greater tonnage, thus reducing the gate fee paid by each of the Applicants (which would ultimately be recovered through rates and charges);
- **Allocation of aggregated volumes to ensure a viable local facility:** If the opportunity to attract a local MRF is explored, individual Applicants will not independently generate enough recyclable waste to ensure the economies of scale needed to attract a commercial business to provide the relevant services. The collaboration between Councils is anticipated to result in a minimum band range of 11,000 to 12,000 tonnes of aggregated recyclable waste volume, which would not be achieved under individual contracts and may be the only way to incentivise the construction a local MRF;
- **Creating a greater market for re-processing facilities:** A greater amount of recyclable waste is anticipated to result in better value for money/leverage when marketing and selling separated waste streams to re-processing facilities; and
- **Increased opportunities for innovation and investment in advanced technology through aggregation of waste volumes:** The aggregation of Applicants' recyclable waste volumes is also likely to encourage investment by the successful tenderer in more advanced technology in waste streams, which will further enhance the operating performance and recovery efficiency of the MRF, leveraging finance or government support for such investment opportunities may not be viable if the proposed conduct is not approved.

The impact of aggregation of volumes and the certainty that such aggregation of recyclable waste will provide the service provider is expected to result in the spread of fixed costs and variable costs of operation of a MRF.

## 9.3 Improved environmental outcomes

In terms of achievement of environmental benefits, the collaborative procurement will lead to:

- **Improved waste management and recovery rates and diversion of waste from landfill:**

- To the extent that the proposed conduct assists in diverting waste from landfill in favour of alternative waste and resource recovery solutions (including beneficial reuse and recycling), the proposed conduct is likely to result in improved environmental outcomes in the form of increased resource recovery rates, being a key objective of the Queensland State Government's Waste Management and Resource Recovery Strategy and resulting in a reduction of material sent to landfill which would trigger the waste levy and is a financial impost on each of the Applicants' ratepayers.
- Landfills are regarded as a community asset and by minimising the burial of waste this asset life is prolonged.
- In the absence of the proposed conduct:
  - There is significant risk that Livingstone Shire Council and Central Highlands Regional Council will be left without any economically viable option for the processing of its lower volume of waste, which needs to be transported over a greater distance;
  - Banana Shire Council, who have not previously directly tendered for recyclables processing services (with the exception of cardboard and paper recyclables processing services carried out under a contract between the Biloela Transfer Station operations contractor and the Visy Gibson Island) and for whom it would not be economically viable to undertake a full service recyclables processing in isolation, are expected to benefit from the support of the remaining Applicants as part of the tender exercise; and
  - Rockhampton Regional Council and Gladstone Regional Council are also at risk of being left without any economically viable option for processing their recyclables and will likely incur higher fees in transporting recyclable waste to MRFs located further afield, without the opportunity to aggregate transport of its recyclable waste and achieve economies of scale through feedstocks.
- **Development of re-processing markets if an opportunity for a local MRF is explored:** As mentioned above under 'economies of scale', the aggregation of recyclable waste volumes will assist in the development of markets for the re-processing of materials that are not currently treated in the region, or for which insufficient infrastructure exists in the collective region which would otherwise be diverted to landfill (including incentivising investment by the service provider in further recyclables processing technology, increasing reuse of waste which would otherwise have been diverted to landfill).

#### 9.4 Increasing regional collaboration

Queensland's Waste Management and Resource Recovery Strategy provides the strategic framework for Queensland to become a zero-waste society, where waste is avoided, reused and recycled to the greatest possible extent. The strategy provides the framework to help deliver coordinated, long-term and sustained growth for the recycling and resource recovery sector while reducing the amount of waste produced and ultimately disposed of, by promoting more sustainable waste management practices for business, industry and households.

The strategy and introduction of the waste levy have presented some challenges for regional councils and businesses due to remoteness, low populations and volumes of

material, lack of viable end markets and processing opportunities. However, there is also potential to create new opportunities for councils working together on a regional scale to achieve necessary economies of scale, transport efficiencies and/or infrastructure investment attraction. To deliver on the Queensland Government's election commitment to develop regional waste management and infrastructure plans, the Queensland State Government has formalised the creation of the Central Queensland Regional Waste Working Group (CQRWWG). In development of the Plan for the Central Queensland Region, the CQRWWG are required to, inter alia, develop a strategic procurement plan. The role of the CQRWWG is to:

- Identify waste management and infrastructure priorities and frameworks at a regional and sub-regional level;
- Collaborate on projects to help improve waste and resource recovery that provide economic development opportunities;
- Identify potential opportunities for investment attraction and income generation for regional communities;
- Identify potential sources of funding to implement innovative waste management and resource recovery solutions on a local and regional level; and
- To review and understand the financial and operational risks and opportunities of all waste management and resource recovery solutions including the transportation of waste streams, both within the CQ region and in/out of our region.

Authorisation of the proposed conduct will be critical to enabling regional collaboration, to the extent of the proposed conduct, including to achieve increased investment in infrastructure required for resource recovery and transport efficiencies.

The broad categories of public benefits mentioned in 9.1 to 9.4 above have been previously recognised by the ACCC in previous authorisation determinations as 'public benefits' warranting the authorisation of joint procurement of waste and resource recovery services by resource recovery groups and local councils.

## 10. Public detriment

The CCA does not define what constitutes a public detriment. However, in Authorisation AA1000524, the ACCC adopted the following broad definition derived from *Re 7-Eleven Stores (1994) ATPR 41-357* at 42,683:

*"...any impairment to the community generally, any harm or damage to the aims pursued by the society including as one of its principal elements the achievement of the goal of economic efficiency."*

It is noted in Authorisation AA1000524 at paragraph 5.18 that "at the end of the 3 year contract term, the Applicants (excluding Banana Shire Council) could again re-assess whether there are other viable options for recyclable processing services". To that end, the Applicants seek to stimulate competition in the market through joint tendering in order to achieve sufficient economies of scale. As a result, the Applicants submit that there is very little discernible public detriment and conversely, the proposed conduct achieves economic efficiency for each of the Applicants' ratepayers.

In addition, the Applicants are proposing to allow all parties to share and manage the risks of fluctuation commodity prices and operating costs to calculate costs for resource recovery reducing cartel pressure/collective bargaining risks.

## 11. Contact details of relevant market participants

### **Kriaris Transport Pty Ltd (ACN 093 090 987)**

Contact Name: Matthew Kriaris  
Position: Director/Owner  
Contact Address: 9 Dornoch Terrace, HILL END QLD 4101  
Contact Number: [REDACTED]  
Email: [REDACTED]

### **Office of Resource Recovery, Queensland Department of Environment and Science**

Contact Name: Pravin Menon  
Position: Executive Director, Office of Resource Recovery  
Contact Address: GPO Box 2454, BRISBANE QLD 4001  
Contact Number: (07) 3330 5063  
Email: [REDACTED]

### **Local Government Association of Queensland (LGAQ)**

Contact Name: Robert Ferguson  
Position: Lead – Public Health and Waste, LGAQ  
Contact Address: PO Box 2230, Fortitude Valley QLD 4006  
Contact Number: [REDACTED]  
Email: [REDACTED]

### **Woorabinda Aboriginal Shire Council**

Contact Name: Michael Hayward  
Position: Chief Executive Officer  
Contact Address: 112 Munns Drive, Woorabinda QLD 4713

Contact Number: (07) 4925 9800

Email: [REDACTED]

**Bundaberg Regional Council – Owner of Bundaberg Material Recovery Facility**

Contact Name: Gavin Crawford

Position: Branch Manager of Waste and Recycling Services

Contact Address: PO Box 3130, Bundaberg QLD 4670

Contact Number: 1300 883 699

Email: [REDACTED]

**Impact Community Service Ltd – Operator of Bundaberg Material Recovery Facility**

Contact Name: Robert Henderson

Position: General Manager Social Enterprises

Contact Address: 108 Baraga Road, Bundaberg QLD 4670

Contact Number: [REDACTED]

Email: [REDACTED]

**Re.Group – Owner and Operator of Mackay Material Recovery Facility**

Contact Name: Ian Collier

Position: Chief Operating Officer

Contact Address: 20 Bond Street, Sydney NSW 2000

Contact Number: (02) 9235 1377 or [REDACTED]

Email: [REDACTED]

**Container Exchange**

Contact Name: Michael Shea

Position: MRF Contract Manager

Contact Number: [REDACTED]

Email: [REDACTED]

**Visy – Owner and Operator of Visy Gibson Island Material Recovery Facility**

Contact Name: Steve Ferris  
Position: Supply Manager Queensland  
Contact Address: 168 Paringa Road, Murrarie QLD 4172  
Contact Number: [REDACTED]  
Email: [REDACTED]

**Biloela Recycling – Operator of the Banana Shire Council Biloela Landfill**

Contact Name: Rob Stapleton  
Position: Manager  
Contact Address: 161 Calvale Road, Biloela QLD 4715  
Contact Number: [REDACTED]  
Email: [REDACTED]

## **Annexure A**



# 2019

## WASTE MANAGEMENT & RESOURCE RECOVERY STRATEGY





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# From the Mayor

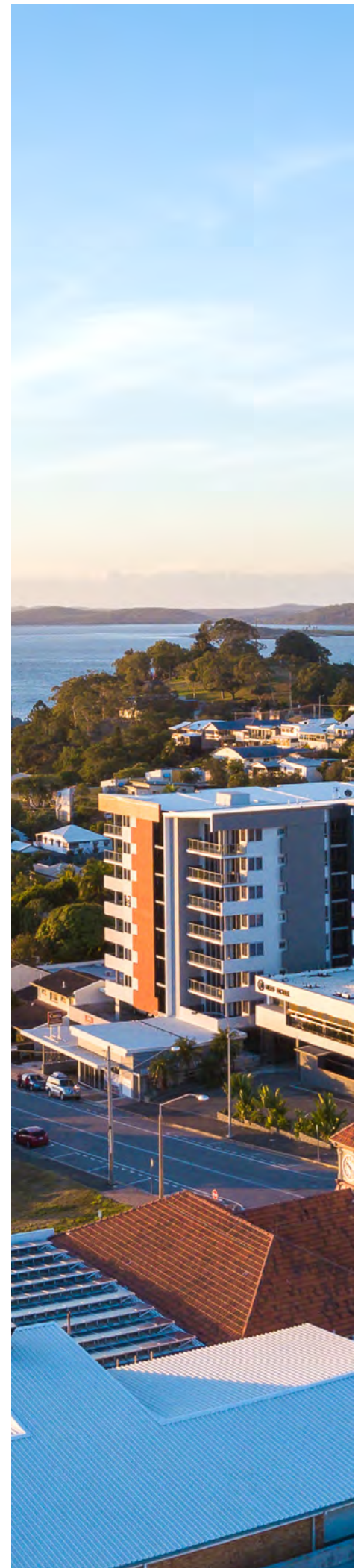
In recent years there has been a significant interest in responsible and sustainable waste management practices. The State and Federal government has taken a strong stance on single use plastic and introduced the ban on single-use lightweight plastic bags, the Container Refund Scheme and Waste Levy. These are visible steps which have made a significant contribution to the reduction of waste generation.

To support the efforts of the government the Gladstone Regional Council Waste Management and Resource Recovery Strategy provides a clear strategic direction and action plan for Council over the coming 10 years. With a focus to reduce, reuse and recycle the plan outlines our waste management priorities and targets.

Gladstone Regional Council is proud to be driving smarter waste management for the Region, now and in the future. Creating a sustainable Gladstone Region.



Matt Burnett  
Mayor Gladstone Regional Council



# Introduction and Background

Gladstone Regional Council (Council) is dedicated to maximising and improving recycling and resource recovery rates in the region. With Council's strong commitment to minimising the amount of waste disposed to landfill, along with the recent commencement of the State's waste levy, this Waste Management and Resource Recovery Strategy presents significant benefits to the region. Council aim to develop a realistic pathway to a zero waste to landfill future, based on the principles of the waste hierarchy.

In developing this Strategy, Council engaged GHD to undertake analysis of existing waste services, infrastructure and available data. Following this, GHD identified a number of key issues and opportunities, which were discussed with Council stakeholders. After consultation, key priorities and recommended activities over the next 10 years were identified to support Council's Corporate Plan objectives. Two separate reports have been provided to Council detailing this work. This document, presented as the Gladstone Regional Council Waste Management and Resource Recovery Strategy, provides a summary of the key drivers, Council's current position as it relates to waste generation and management, challenges and opportunities for improvement, and a detailed list of proposed activities by priority, to support the identified improvement opportunities. Council intends that the priorities identified in this strategy will be implemented over a 10 year period. The priorities will be reviewed from time to time and updated and adapted as required in response.





# Strategic Drivers

Council's Waste Management and Resource Recovery Strategy was developed in line with national, state and local legislation, strategy and policy frameworks for sustainable waste management and resource recovery practices.

In Queensland, the Waste Management and Resource Recovery Strategy 2019 is the guiding document for the management of Queensland's waste. The Queensland strategy has set targets for 2025, 2030, 2040 and 2050 to provide an ongoing measurement of progress. The targets set for 2050 include:



**25%**  
reduction in  
household waste



**90%**  
resource recovery rates  
across all waste types  
(i.e. only 10% of all waste goes to landfill)



**75%**  
recycling rates across all  
waste types



# Strategic Drivers

The Queensland Strategy has been supported by the introduction of a levy applied to most waste disposed to landfill in Queensland, based upon the principles of the waste hierarchy illustrated below in Figure 1. These principles have been used to guide the development of the key priorities of Council's Strategy.

The Gladstone Regional Council Corporate Plan 2019 – 2023 has a vision to “Connect, Innovate, Diversify” with a key strategic goal being for the health of our community and the environment. Key elements of the Corporate Plan, include a desire to target zero waste to landfill, increasing the recycling rate by 20% (compared to 2017/2018 baseline figures) and reducing carbon dioxide emissions and these are the driving forces behind this Strategy.

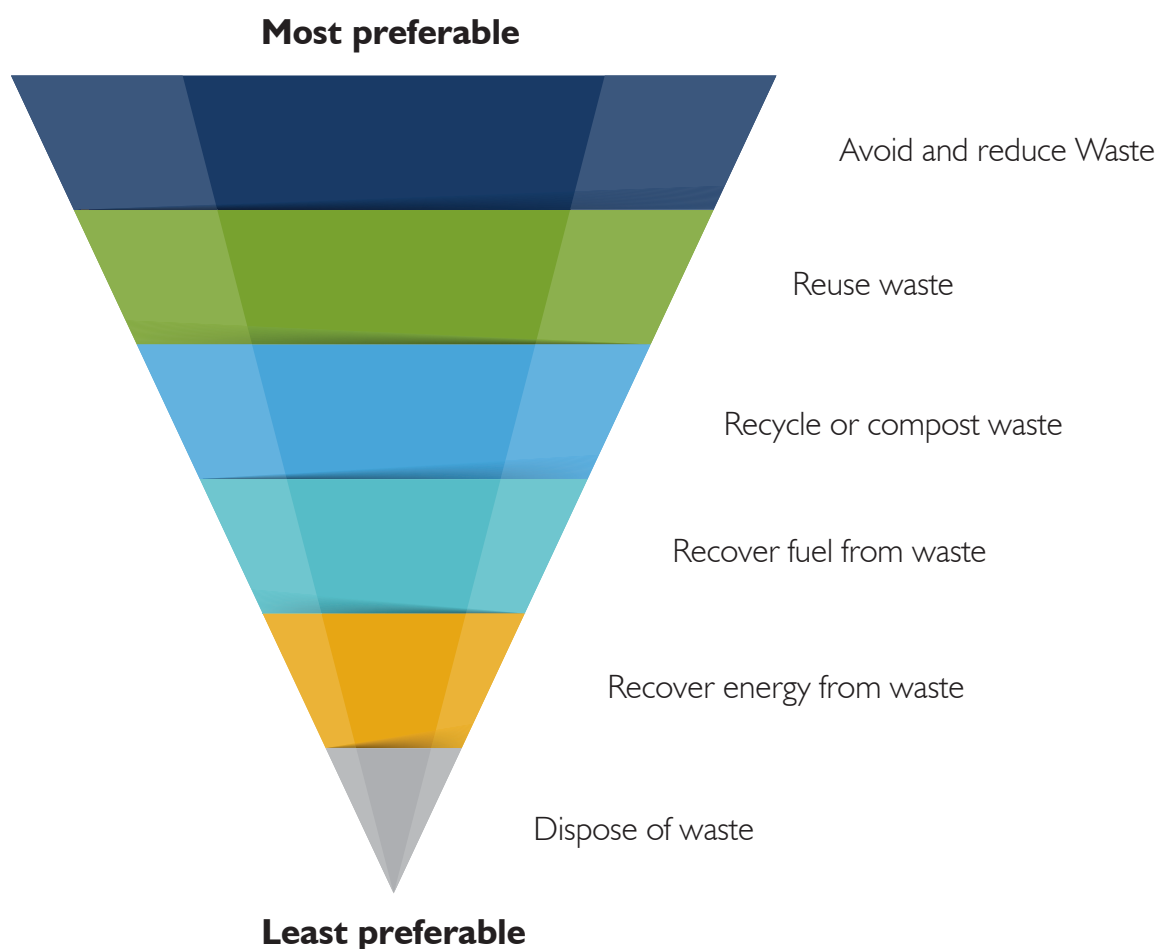


Figure 1 Waste and resource management hierarchy<sup>1</sup>

# Current Position

The Gladstone Region is located approximately 100 km south-east of Rockhampton and covers approximately 10,500 square kilometres. The Gladstone Region is the second largest local government in the Fitzroy statistical region with an estimated population of 63,000 people (as of June 2016) and growth scenario projections estimating a population between 67,000 and 83,000 people by 2041, as outlined below in Figure 2.

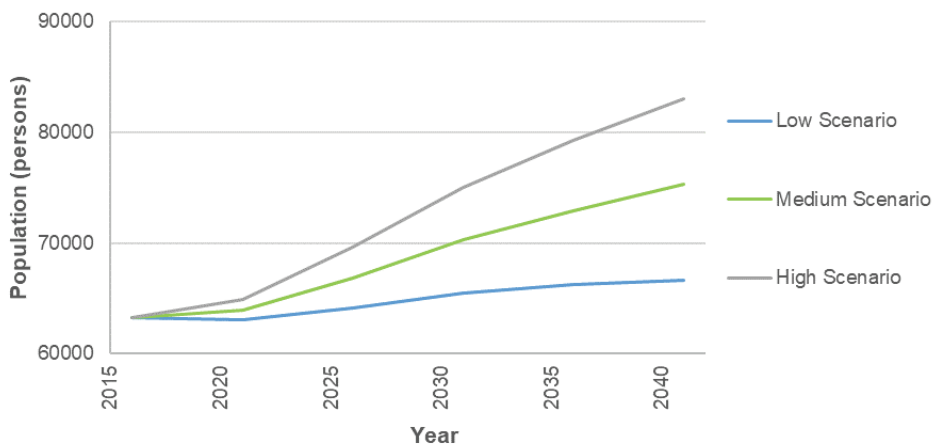


Figure 2 Gladstone population projections





# Waste Generation

With Gladstone being an industrial hub, waste generation in the region year to year tends to vary depending on economic activity and local projects. The waste generated can be categorised under three major headline streams:

- Commercial and Industrial (C&I)
- Construction and Demolition (C&D)
- Municipal Solid Waste (MSW)

In the 2017/2018 financial year, a total of 56,900 tonnes of waste was received at Council waste facilities. Of this, approximately 67% was MSW, 23% C&I and 10% C&D, illustrated below in Figure 3. This equated to a total of 38,000 tonnes of MSW or approximately 570 kg of MSW generated by each resident annually.

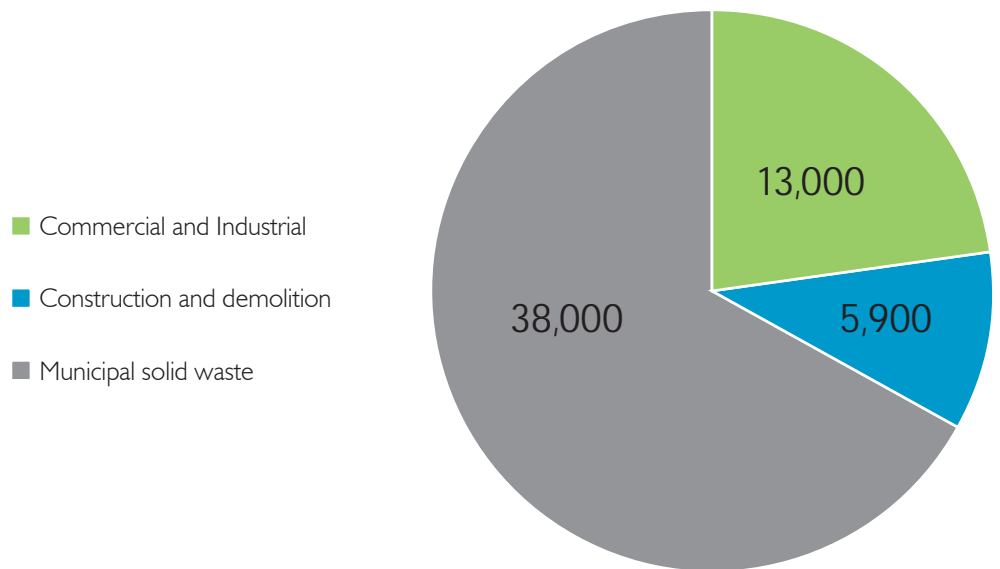


Figure 3 2017/2018 waste generation





# Waste infrastructure and services

Council's current waste facilities include the Benaraby Regional Landfill and 13 transfer stations located throughout the region. Waste collection services for households in the region comprises a two bin kerbside service. The yellow lidded bin for commingled recyclables is collected on a fortnightly basis and the red lidded bin for residual waste for landfill disposal is serviced weekly. All general household waste collected via this service is disposed of at the Benaraby Regional Landfill and recyclables are transported to the Central Queensland Materials Recovery Facility. An overview of the waste flows in the Gladstone region can be seen in Figure 4 on the following page.

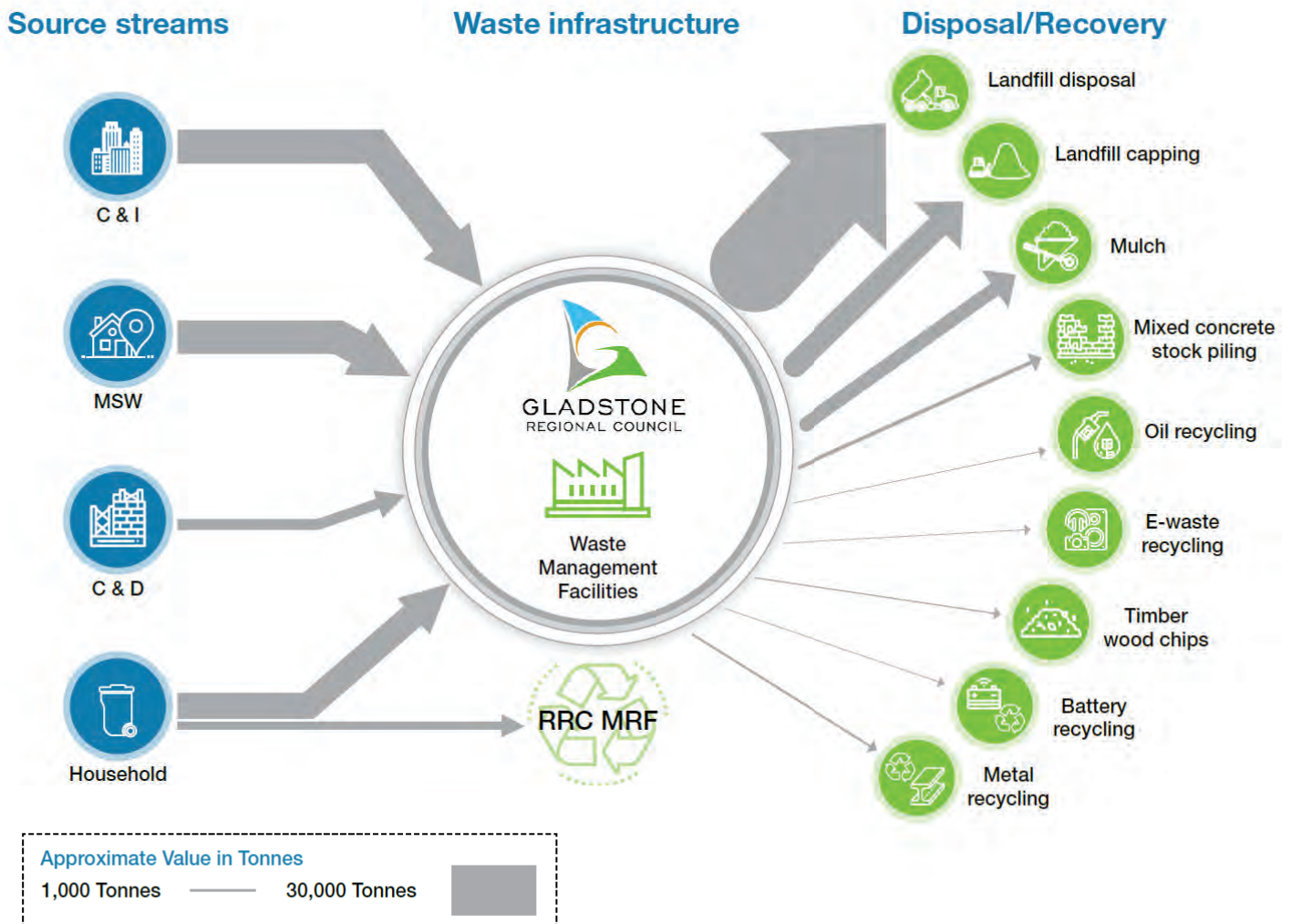


Figure 4 Gladstone region waste flow



# Resource recovery

Resource recovery from a number of different waste streams is already being undertaken in the region, diverting materials such as clean fill, green waste, paper and cardboard, timber, metals and glass, as detailed in Figure 5 below. The amount of material recovered through these activities has followed an increasing trend over the last three years and is likely to continue as further resource recovery initiatives and technologies are introduced.

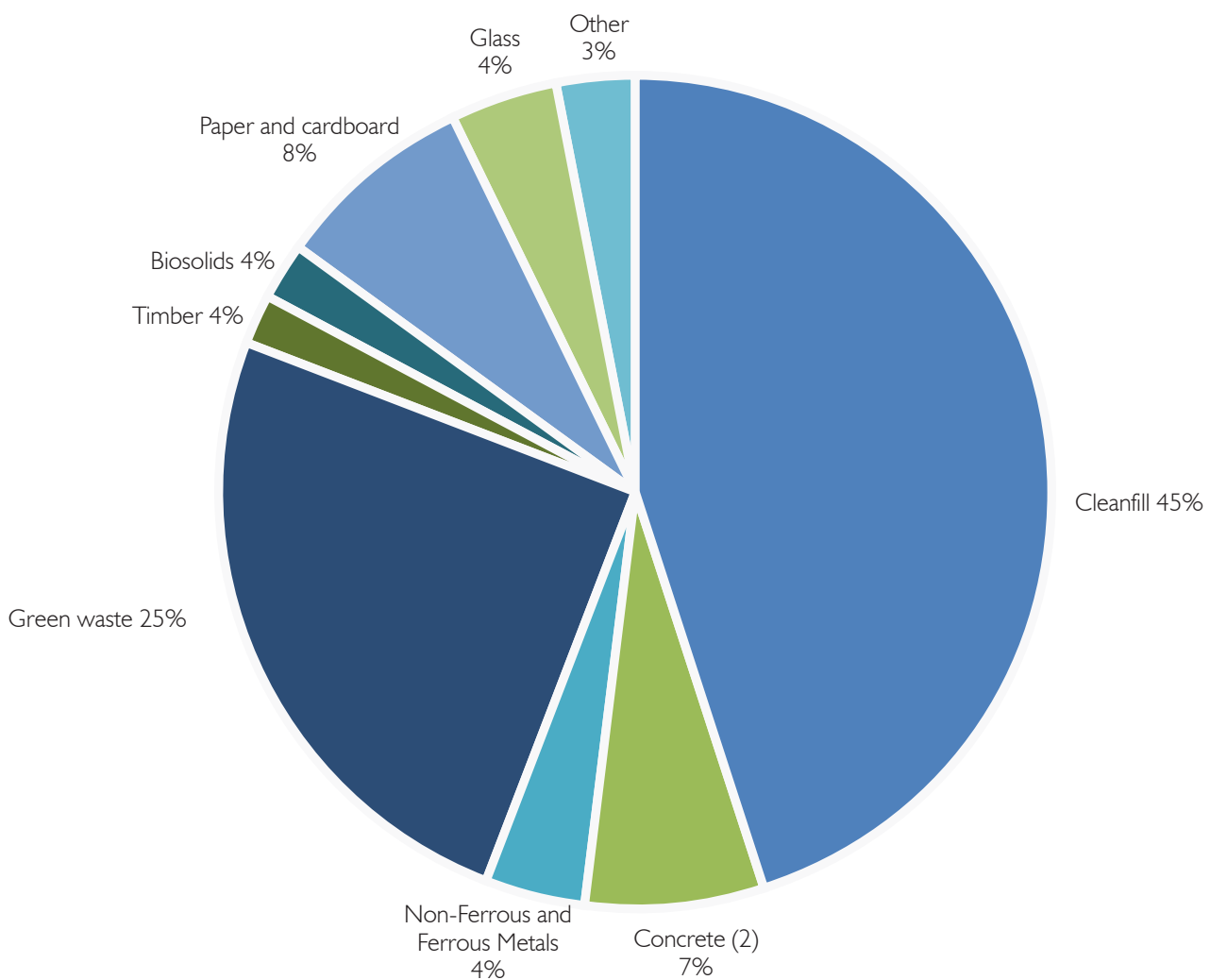


Figure 5 Materials recovered in Gladstone

<sup>3</sup> Asphalt, brick and tile recovery have not been itemised under a waste type and have been included in the value for concrete.

<sup>4</sup> 'Other' includes the following waste streams: steel cans, aluminium cans, mineral oil, salvaged items, contaminated soil, lead batteries, E-waste, chemicals, tyres and plastics. It should be noted that Council does not accept waste chemicals. The chemicals recovered were concealed in other waste and have been recovered prior to being sent to landfill.



# Key challenges and opportunities

The key challenges and opportunities within the Gladstone region for waste and resource recovery management and increasing landfill diversion are highlighted below.

## Challenges

## Opportunities

### Waste Services

The current two bin kerbside collection service offered by Council does not allow for recovery of garden organics and/or food organics (FOGO) at the kerbside.

It is estimated that 20-30% of waste in kerbside red lid bins is green waste, and a further 20-30% is food waste. To increase resource recovery, recycling and supporting the State targets the introduction of additional kerbside services (a third organics bin) can be used to promote the separation of organics.

There could be potential to work with local industry and business to improve recycling rates.

### Benaraby Regional Landfill

Landfill gas extraction from the landfill for electricity generation will likely decrease if organic material is diverted from landfill.

Available footprint at the site for future waste management and resource recovery infrastructure and general site operations.

### Energy from Waste

The applicability of Energy from Waste infrastructure in the Gladstone Region will continue to be reviewed over time, however the volumes of waste handled by Council currently and in the near future are not of sufficient scale to warrant investment by Council at this point in time. Technologies typically have high capital investment requirements, lengthy planning approvals and the potential for unstable markets for feedstock, products and by-products.

Technologies provide opportunities for increased landfill diversion for waste that could not otherwise be recycled or recovered.



## Challenges

## Opportunities

### Organics processing infrastructure

The implementation of separated organics at the kerbside would require detailed planning and implementation, including development of a business case, and an engagement and education program for users of the service.

Infrastructure provides opportunities to target the recovery of food organics and garden organics (FOGO). Facilities may be suitable for the region with the potential to co-locate at the Benaraby Regional Landfill or at the waste water treatment plant. There are infrastructure options that have the potential to produce energy and recycle organics.

### Other resource recovery initiatives

Contamination rates in the region's kerbside bins decrease resource recovery rates. Recyclables handled by Council are currently processed outside of the region at the Central Queensland Material Recovery Facility.

The incorporation of recycled material in local council projects, through procurement processes. Council can utilise existing facilities at the Benaraby Regional Landfill for the storage and reprocessing of recycled material.

### Supporting infrastructure

Council currently operates 13 transfer stations, 11 of which are staffed, which can come with significant ongoing costs.

A review of the operation and efficiency of the Council transfer station network could identify opportunities to drive activity in recycling over waste disposal and other operational improvements

### Waste data management

Inconsistencies in the current waste data set may hinder the ability to benchmark Gladstone's performance across the region and develop achievable resource recovery and waste management targets.

The introduction of standard data collection systems would allow for clear and consistent data to be reported and monitored to highlight trends and track targets.

### Education and engagement

Council does not have an education officer to lead waste management education and engagement programs.

The development of an engagement and education program could assist with improving resource recovery and decreasing contamination rates in household kerbside recycling bins, as well as litter and illegal dumping.

# Waste strategy priorities

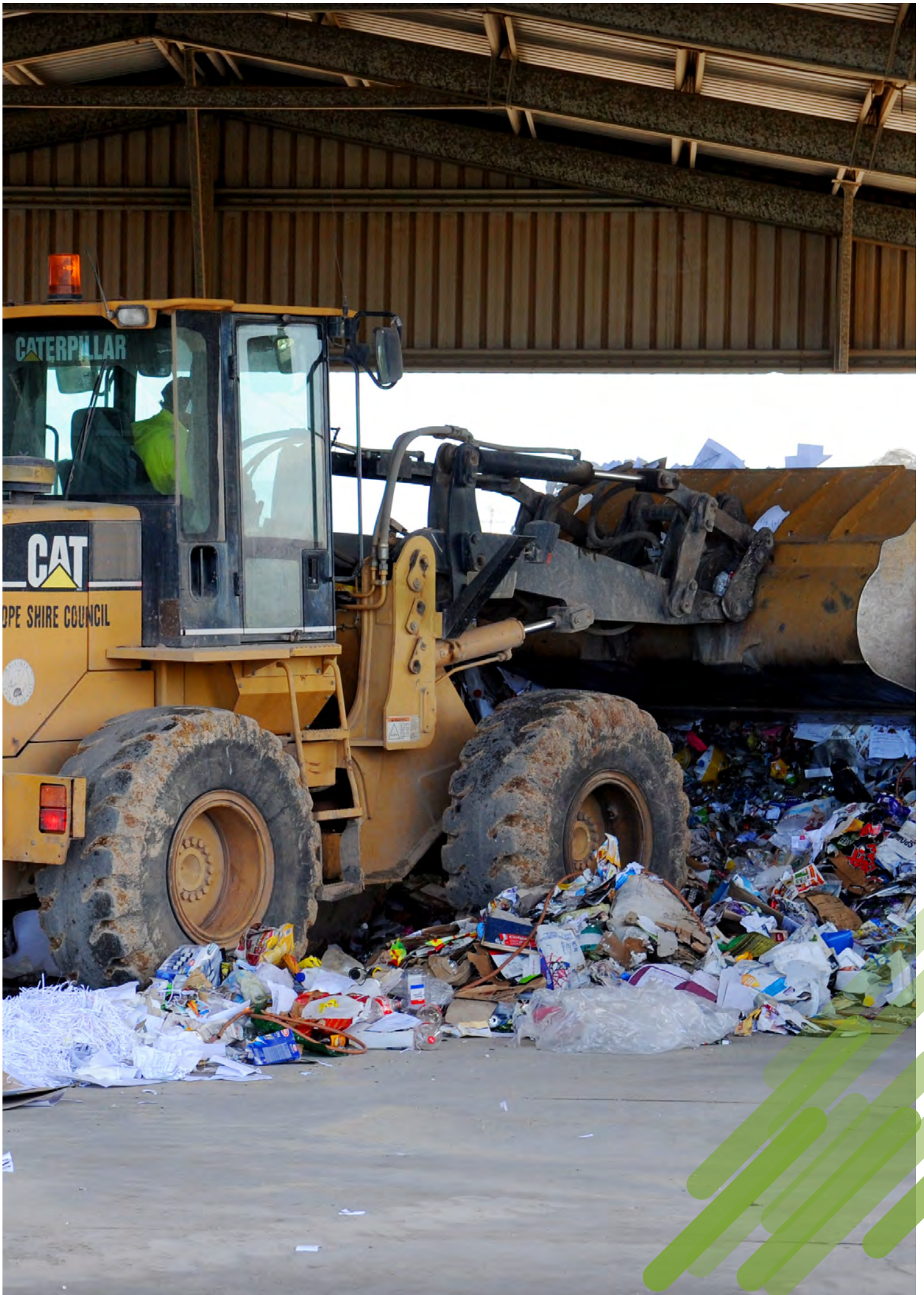
The priorities of Gladstone Regional Council's Waste Management and Resource Recovery Strategy are based on the waste and resource management hierarchy. Council will invest in reducing the generation of waste in the Gladstone Region, and improving resource recovery to extract value from materials in the waste stream, before considering landfill disposal.

The hierarchy is the framework used to guide the order of preference for managing waste. Council is committed to managing waste at the highest practical level of the hierarchy in order to achieve the best outcome for both the environment and future generations.

The priorities in this strategy and its objectives, align with the different aspects of the waste hierarchy, as highlighted below.

Waste strategy priorities	Waste and Resource Management Hierarchy				
	Avoidance and Waste reduction	Reuse	Recycle or compost	Recover fuel or energy	Dispose
<b>Priority 1</b> - Waste education	✓	✓	✓	✓	✓
<b>Priority 2</b> - Reuse of recovered material in local projects	✓	✓			
<b>Priority 3</b> - Landfill diversion through recycling	✓	✓	✓		
<b>Priority 4</b> - Optimise existing infrastructure			✓		✓
<b>Priority 5</b> - Organics processing	✓		✓	✓	
<b>Priority 6</b> - Regional collaboration	✓		✓	✓	
<b>Priority 7</b> - Data collection and management	✓	✓	✓		✓











# Priority One

## Waste education

Council's focus is on waste education, a crucial driver to the success of any proposed service or infrastructure change. Education and engagement with the community plays a critical role in meeting waste management targets and reducing contamination rates. It is a key element in the successful implementation of this strategy, supporting the actions and objectives of other priorities.

Through education and engagement, Council aim to reduce household waste generation and litter and illegal dumping in the region, an issue that is costing Council approximately \$200,000 a year to address.

### Objectives

- Reduce household waste generation and litter and illegal dumping in the region.
- Build community support for any changes to waste management services and infrastructure.

## Actions for delivery

### Action

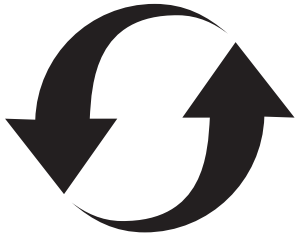
Consider the appointment of a waste and recycling education officer

Development of a Gladstone region waste and recycling education plan, in consultation with other Central Queensland councils where appropriate

Update and action existing Gladstone Regional Council Litter and Illegal Dumping Prevention Strategy 2014

Development of a community engagement and education program for proposed waste service and infrastructure changes





# Priority Two

## Reuse of recovered material in local projects

The reuse of recovered material in local projects can prevent this waste from being disposed, as well as meeting the reuse waste hierarchy principle. Waste production in local projects can also be further reduced, and some instances avoided, by specifying the use of materials that contain recycled content and/or are recyclable and recoverable during construction.

Implementing recovered material into procurement specifications helps to work towards decreasing waste disposal, whilst also utilising recovered material in the Gladstone Region.

### Objectives

- Update Council procurement processes to drive resource recovery and reuse of recovered material in the Gladstone Region
- Ensure Council takes a leadership role in supporting the development of markets for recycled and recovered materials
- Actions for delivery.

## Actions for delivery

### Action

Review contract conditions and procurement policies to identify barriers and opportunities to incorporating requirements for recycled content in Council procurement of goods and products i.e. roadbase

Review Council engineering specifications to identify barriers and opportunities to drive the take up of recycled content in Council works programs (major and minor works)

Consider the development of a Recovered Resources database or repository to foster trade of recovered materials such as clean fill, concrete, aggregate and other demolition products

Implement contract and policy changes to increase recycled content in Council procurement of goods and products

Update Council engineering specifications to drive the take up of recycled content in Council works programs (major and minor works)

Review and update Gladstone Regional Council procurement processes, where practicable, to incorporate the use of materials that are able to be reused or recycled at the end of their initial product lifecycle

Maintain active presence in Gladstone Region industrial and business communities to stay abreast of emerging resource recovery and reuse opportunities and barriers

Collaborate with local industry to develop a plan to support the development of local and regional markets for recovered materials

Maintain active relationships with State Government and Local Government Association of Queensland to stay abreast of policy changes and funding opportunities to support market development



# Priority Three

## Landfill diversion through recycling

A number of opportunities exist in the Gladstone Region where landfill diversion could be increased through improved reuse and recycling initiatives. Council want to focus on increasing landfill diversion by maximising the amount of waste that is recycled and recovered. Increasing recycling rates involves significant community and business engagement and education, as well as service improvements to the local community, businesses and industry.

Contamination in recoverable and recyclable waste streams can affect the ability to recover material and ultimately results in disposal to landfill. In the Gladstone Region, the main sources of contamination occur in kerbside and public recycling bins.

### Objective

- Increase recycling and recovery rates from all waste streams to support activity towards Gladstone Regional Council's Corporate Plan goal of a 20% increase in recycling compared with 2017/2018 baseline.

## Actions for delivery

### Action

Consider broadening commercial recycling options provided by Council, including collection services together with attracting additional customers to waste facilities for recycling

Reduce contamination rates in yellow bin lid through development and implementation of education program

Explore introduction of a three bin kerbside collection system to recover food waste and/or green waste. Including consideration delivery model, service provision and regional collaboration

Develop an implementation plan for source separated organics i.e food waste, garden organics, or both (FOGO)

Implementation of the proposed "Precinct Upgrade" particularly recycling facilities at Benaraby Regional Landfill

Consider market led opportunities for provision of dry residual waste as feedstock for refuse derived fuel projects, by identifying suitably experienced private sector participants seeking to develop infrastructure or feedstock in the region



# Priority Four

## Optimise existing infrastructure

Ongoing review of the existing waste collection services and Council operated waste infrastructure within the Gladstone Region is required to ensure they continue to meet Council's own corporate and operational objectives.

Objective

- Optimise Gladstone Regional Council waste services and infrastructure to support efficient waste management.

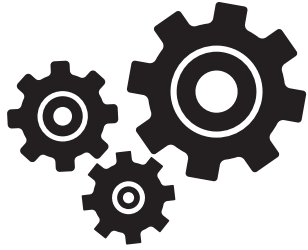
## Actions for delivery

### Action

Operational efficiency review of current transfer station network including locations, operating hours, materials handled and staffing arrangements

Review of current waste collection services contracts (and commercial arrangements)

Ongoing monitoring to review the success of "Precinct Upgrade" at Benaraby Regional Landfill after implementation, in terms of improved recycling and resource recovery performance



# Priority Five

## Organics processing infrastructure

Council will consider options for a future resource recovery or waste management facility in the region. There are numerous factors affecting the successful implementation of an organics processing technology for Council to consider.

The introduction of organics processing infrastructure supports the Council's Corporate Plan goals to target zero waste to landfills and also supports action towards higher waste hierarchy principles.

### Objective

- Develop a plan to drive the reduction in organics disposed to landfill, aligned to Council and State government targets.

## Actions for delivery

### Action

Review waste generation and composition data

Determine Council's role in infrastructure delivery and operation

Conduct a detailed economic feasibility study for the proposed infrastructure, including market review for end products

Develop a business case and approach to market

Identify potential for collaboration with suitably experienced private sector participants to support development of organics processing infrastructure in the region

Implementation of stakeholder engagement and an education plan for proposed infrastructure

Organics infrastructure development (if deemed viable)



# Priority Six

## Regional collaboration

Gladstone Regional Council are one of six local councils in the Fitzroy statistical region and are host to many industrial operations. The purpose of this priority is to explore the potential for collaboration with surrounding Councils in the Fitzroy region and local industry for future waste management opportunities.

### Objective

- Further explore waste management opportunities at a regional level.

## Actions for delivery

### Action

Review appropriateness of kerbside recycling materials collected with respect to markets/reprocessing options for recovered commodities during contract review and retendering

Continue participating in co-mingled recycling processing services with Central Queensland Material Recovery Facility

Assess collaborative opportunities with surrounding Local Government Authorities, including regional funding





# Priority Seven

## Data collection and management

Reliable and transparent data is crucial for tracking Gladstone's progress towards proposed targets, regional collaboration and waste infrastructure planning. Consistent and accurate data allows for meaningful reviews of waste reduction targets, performance evaluations and meaningful comparisons with the state and other local councils. By improving the region's waste data collection and management, Council can consistently monitor and review their progress towards a zero waste to landfill future.

The Queensland Government are currently working on improving waste data collection across the state, and a selection of the actions identified in this priority may or may not be in direct control of the Council.

### Objective

- Improve and standardise waste data collection.

## Actions for delivery

### Action

Development of standard data collection systems and reporting template

Improve data collection of GRC waste generation and reuse (i.e. green waste and construction and demolition waste) to better inform decision making on changes in service and infrastructure planning

Include the provision of data in electronic format in contracts with waste service providers

Map regional waste data as a means to inform better waste management and infrastructure planning





GLADSTONE  
REGIONAL COUNCIL





## **Annexure B**

# Waste STRATEGY

2020-2030



*Building a Circular Economy*



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## Message from THE MAYOR

The implementation of responsible and affordable waste management practices has become one of the most important and high profile issues in recent years. The low cost of production and a desire for convenience has created a culture in which single-use materials have become the norm. This linear economic model of make-use-dispose is imposing a burden on the environment and on our economic wellbeing.

The decision by South East Asian governments to no longer accept contaminated recyclables sent shock waves through the Australian waste and recycling sector. Without either the necessary processing capacity or sufficient market demand for recyclable products, the sector has found itself scrambling for new ways of dealing with the ever increasing waste stream. As the managers of much of the nation's waste infrastructure, the burden is falling on local governments to find solutions and manage waste in the best interest of all parties.

The policy response from all levels of government now being witnessed is unanimous on one message, that Australia must embrace the principles of a Circular Economy. We can no longer afford to think in terms of waste, but rather need to think in terms of valuable resources, resources that if properly managed can be returned into productive use over and over again, delivering economic benefits and prosperity to our community. Products need to be designed, sold and consumed in a manner that facilitates their repaired, reused or recycled, with landfill seen as a solution of last resort. By embracing these principles, we will encourage innovation, increase resource productivity, and deliver economic benefits, jobs and social inclusion across our community.

It is with great pleasure that I present Rockhampton Regional Council's Waste Strategy 2020-2030 as an important first step in a community wide mobilisation to inspire change in the way we think about waste here in our own region. It lays out Council's waste management and resource recovery priorities for the next 10 years as we move towards a circular economy and help to secure the long term prosperity of our region.

This is an exciting time to be involved in the waste management sector, or should I say the resource recovery sector, since this is what it truly must become. I look forward to sharing this journey with each of you as we build a sustainable future for the Rockhampton Region.

# Introduction

## **Waste management in Australia is currently undergoing a once in a generation transformation.**

It is increasingly acknowledged that our current rate of consumption of natural resources is not sustainable. A desire for convenience and spiralling consumption of single use goods are contributing to an ever growing waste stream.

Despite decades of well-intentioned policy, there has been little or no improvement in the last decade in the proportion of waste being diverted from landfill, whilst the overall amount of waste continues to increase as our population and economic activities grow.

Bans imposed by South East Asian governments on the importation of contaminated recyclables from overseas has caused turmoil in the Australian recycling sector. An under capacity in domestic processing infrastructure along with a poorly developed market for recyclable goods has led to

a chronic oversupply of recyclable materials in the domestic market.

Both the Commonwealth and State Governments are recognising the urgent need to respond and are providing policy and investment to drive the structural changes that are now needed to our industry.

At the heart of this policy agenda is the concept of the circular economy. A circular economy is one where resources are retained in the productive cycle for as long as possible, minimising the environmental impact of our consumption and maximising the benefits of those resources in our local economy.

## **THE RRC WASTE STRATEGY**

The RRC Waste Strategy is Rockhampton Regional Council's own response to meet these challenges and to align our efforts with the new policy positions being adopted across the waste management sector. Importantly, it outlines the strategies we will employ to support the transition of our community towards a circular economy with the long term goal of achieving zero waste by 2050.

In this strategy you will find an evaluation of our existing capacity and current performance. It then outlines what a zero waste community would look like in 2050 in terms of the waste we forecast our community will generate, establishes the measures against which we will monitor our progress and details the strategic actions that Council will implement over the next 10 years in pursuit of achieving the goal of zero waste by 2050.

This strategy also fulfils all of Council's obligations under the Waste Reduction and Recycling Act 2011.

Council recognises that to achieve the ambitions of a circular economy and zero waste, a whole of community response will be required. This strategy is therefore only the first step in a much longer conversation and collaboration across our community, local business, government agencies, the waste industry, educators and many other stakeholders.



## Our Vision

### **To live in a community without waste.**

We will become a “zero-waste” community by 2050, diverting 90% of waste from landfill.

#### **ENVISIONED FUTURE**

Our community will have embraced the principles of a circular economy and waste minimisation.

We will be diverting a minimum of 90% of our waste from landfill, the remainder being made up of only waste for which there is no other available disposal options such as regulated wastes.

We will adopt zero waste strategies across every waste stream, seeking out and nurturing viable local markets for the continuous recovery of materials, keeping the flow of resources as local as possible.

Business, social enterprise and the public sector will work in partnership to maximise the economic value out of all the resources we use, creating new economic activity and jobs in our community.

We will become an exemplar for best practice in waste management, being nationally recognised for the sustainable ways in which we manage our waste.

Council’s waste management services will be delivered at a level of service and at a cost that is admired by other local governments.

# Key Policy Drivers

**There are several national and state legislative and policy requirements that guide the direction of this plan.**

## **NATIONAL WASTE POLICY**

The National Waste Policy, revised in 2018 is aimed at providing a common national approach to waste management, applying the principles of a circular economy and giving effect to Australia's international obligations e.g. UN Sustainable Development Goal 12 on responsible consumption and production.

## **QUEENSLAND WASTE MANAGEMENT AND RESOURCE RECOVERY STRATEGY**

The Queensland Waste Management and Resource Recovery Strategy (Queensland Waste Strategy) was adopted in July 2019 to provide a coordinated framework to deliver on the principles of the circular economy. It outlines a vision of a zero-waste society, which it further defines by way of a series of progressive targets for waste reduction and resource recovery to 2050.

Aligned around three strategic priorities, it promotes sustainable waste management practices for business, industry, local governments and households and sets the outline of a progressive policy and regulatory framework. The introduction of a waste disposal levy in 2019 provides the funding framework to implement the Queensland Waste Strategy whilst also sending a pricing signal to waste generators and acting as a disincentive for inter-state dumping practices.

## **WASTE REDUCTION & RECYCLING ACT 2011**

The Waste Reduction & Recycling Act 2011 provides the waste management legislative framework in Queensland. Local government entities are required to adopt a Waste Reduction and Recycling Plan, which must set clear guidelines for waste management within the local government area in order to best achieve the objectives of the Act. The Act further requires that the Waste Reduction & Recycling Plan is reviewed as a minimum every three years. This strategy is the Waste Reduction and Recycling Plan for Rockhampton Regional Council.

## **ROCKHAMPTON REGIONAL COUNCIL PLANNING FRAMEWORK**

This strategy has been developed with regard to the broader Rockhampton Regional Council planning framework, being specifically mindful to align with the Corporate Plan, Environmental Sustainability Strategy and other economic development strategies.

In particular, Council's Corporate Plan outlines three categories of initiative aimed at driving economic growth in our region:

- enabling initiatives that support growth and prosperity
- value adding initiatives that build on the existing strengths of our region's economy
- diversification initiatives that will foster growth in new industries and business

This strategy directly supports this approach, focusing on delivering solutions within the waste management context that build economic sustainability for current and future generations.

# Guiding Principles

## WASTE HIERARCHY


The waste and resource management hierarchy is a framework that guides the order of preference for managing waste. Waste should be avoided as a first priority, after which options for reuse and recycling should be explored. The options of fuel production, energy production or disposal should be reserved for residual waste that is unsuitable for higher order options. The hierarchy shapes this Strategy's priorities and provides the basis for the development of the strategic actions.

*MOST PREFERABLE*

Avoid and  Reduce Waste

Reuse  Waste

Recycle  or Compost

Recover Fuel 

Recover Energy

Dispose of Waste



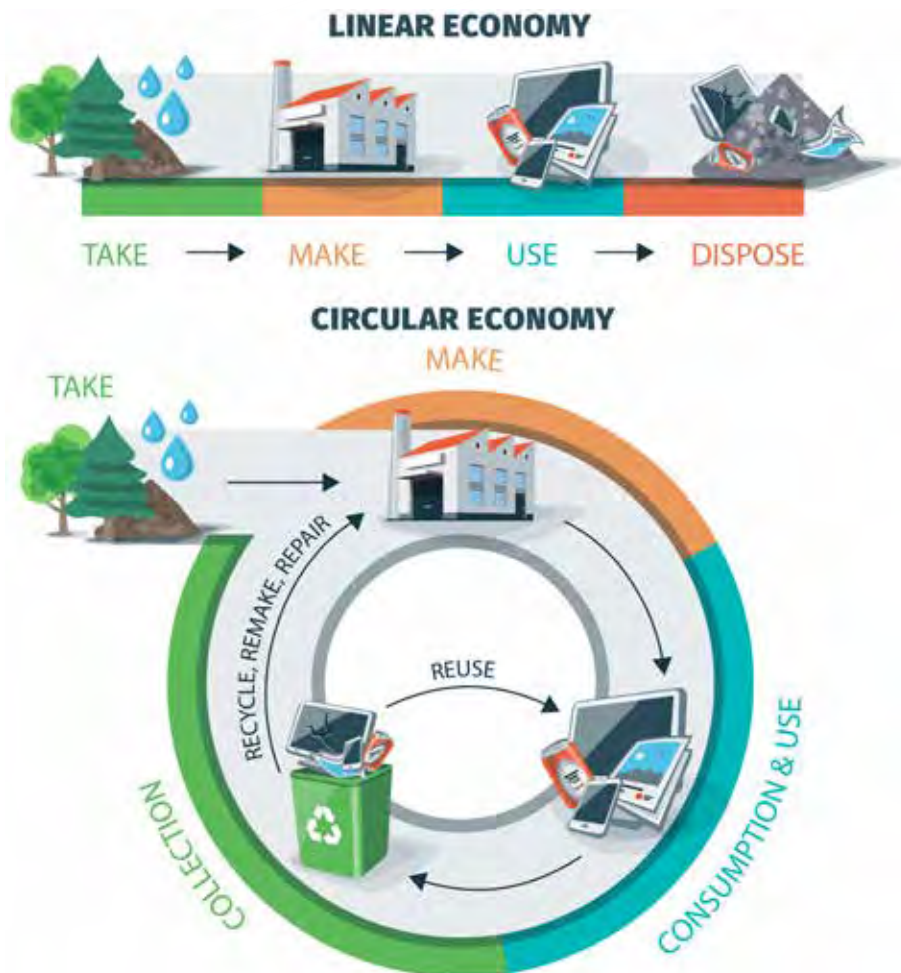
*LEAST PREFERABLE*



## CIRCULAR ECONOMY

Rather than follow a linear take-make-use-dispose approach, circular economy principles consider opportunities across the entire supply chain to retain and circulate resources in the economy at their highest value for as long as possible. A circular economy builds

on long-lasting sustainability concepts, including life cycle thinking and resource efficiency, as well as complementing the waste hierarchy. A circular economy refers to the flow of both materials and energy.



The circular economy has the potential to transform the way we design, teach and invest, and how we buy products, gradually moving the economy to where there is no waste and we use fewer virgin resources.

## INTER-GENERATIONAL EQUITY

We are committed to making waste management decisions which ensure the health, diversity and productivity of our environment is maintained or enhanced for the benefit of future generations.

When making pricing decisions for our services, it is important that the full cost of the service provided

is levied upon the user of that service and not future generations e.g. when we are pricing the cost of landfill disposal, we must ensure that we charge a price that reflects not only the current cost of construction and operation of the landfill, but also the closure and post closure cost of managing and remediating the site.

## LOCAL SOLUTIONS

A circular economy presents opportunities for increased local recycling, reprocessing and manufacturing activity. Local solutions create local jobs and minimise the costs and environmental impacts of unnecessary transport.

Creating and supporting local markets retains the economic benefits within our community, creating new skills and opportunity, and attracting new investment from outside our region. This in turn increases economic and community resilience, an essential consideration for regional and rural communities as we tackle the longer-term impacts of climate change.

## SNAPSHOT OF WASTE IN ROCKHAMPTON 2017-2018



# Where Are We Now?

Rockhampton Regional Council has an estimated 2019 population of 85,978, living in approximately 35,000 residential dwellings. The region’s population is projected to grow at an average annual increase of 1.8% to 112,701 by 2036. This growth has been factored into the waste flow projections presented here.

During the 10 years to 2014, economic growth in the region was consistent with state-wide growth, averaging 3.3% per annum. With the downturn in mining investment and completion of several large-scale infrastructure projects, the four years

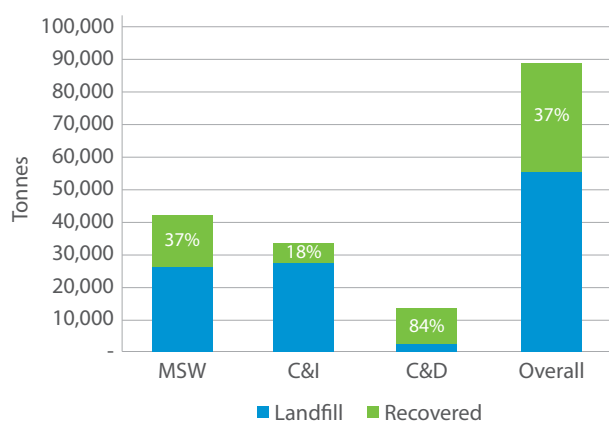
to 2018 saw an average economic contraction of 1.7% per annum. Due to the unpredictability of economic growth rates in CQ, economic growth has not been factored in the waste flow projections presented here.

## WASTE PROFILE

Total waste generated in 2017-18 was 89,000 tonnes. Of this 33,000 tonnes were recovered, via a combination of kerbside commingled collections and self-haul green waste and other recyclables

dropped off at WTS. The remaining 56,000 tonnes were buried in landfill, giving an overall recovery rate of 37%.

Recovery Rates by Waste Class 2018



Stream	Landfill tonnes	Recovered tonnes	Recovery Rate	Qld Baseline 2017-18
MSW	26,488	15,678	37%	32%
C&I	27,173	6,111	18%	47%
C&D	2,135	11,217	84%	51%
Overall	55,795	33,006	37%	45%

The biggest waste source is Municipal Solid Waste (see side bar on next page for definitions) at 42,000 tonnes per annum, 37% of which was recovered.

Commercial and Industrial (C&I) waste accounted for 33,000 tonnes per annum, with just 17% being recovered.

Construction and Demolition (C&D) waste accounted for 13,000 tonnes, of which 84% was recovered, the direct result of the work of Civil Operations team who divert nearly all of their concrete, asphalt and clean earth materials for screening, crushing and reuse.

## KERBSIDE COLLECTIONS

Council currently provides approximately 32,000 domestic and 5,000 commercial or public place general waste bin collections per week from the kerbside, using its own labour force and fleet of 11 collection vehicles. A further 32,000 domestic and 2,500 commercial or public place kerbside recycling bin services are provided on a fortnightly collection cycle via an external contractor. All kerbside collections use 240 litre wheelie bins.

The regional material recovery facility (MRF) is located in Wade Street, Rockhampton. It is privately owned and operated, and currently sorts 12,500 tonnes per annum of the kerbside recyclables from four participating councils in our region. Of this total, Rockhampton provides approximately 5,240 tonnes per annum.

## WASTE FACILITIES

Council operates one active landfill site located at Lakes Creek Road, Rockhampton, comprising of a state of the art "piggyback" engineered landfill that will sit over the top of the existing closed landfill. This landfill will consist of a total of 12 adjoining cells, with construction scheduled to take approximately 20 years. When complete, the profile of the "piggyback" landfill area will match the height of the previous landfill. At current fill rates this site has a projected life expectancy of 40+ years.

Also on the Lakes Creek Road site is a large covered recycling drop off zone and adjoining tip shop where visitors drop off a wide range of household recyclables. General public and small commercial vehicles are then directed to a purpose built waste transfer station to unload general waste and bulky recoverable items such as metals, mattresses and tyres.

Council operates a network of six other waste transfer stations serving the remainder of the local government area, located at Gracemere, Mount Morgan, Bouldercombe, Alton Downs, Bajool and Bushley. Each of these facilities accept a variable mix of self-hauled materials from the general public, ranging from general waste, commingled recyclables, green waste, metals, oil, batteries, tyres, mattresses, e-waste, agricultural chemical containers and useful salvageable household items.

Our local government area also has an estimated 30 closed landfill sites which council is required to manage and monitor in line with the requirements of the *Environmental Protection Act 1994*.



# Types of Waste EXPLAINED

**Municipal Solid Waste (MSW)** is a combination of domestic waste and other wastes arising from council activities (such as the management of parks and gardens, and the collection of litter and illegally dumped waste).

**Commercial and Industrial (C&I)** is waste generated by businesses, including waste from schools, restaurants, retail, offices, agriculture, manufacturing, community groups and sports clubs.

**Construction and Demolition (C&D)** is waste generated from construction and demolition activity, usually including brick, timber, concrete and metal.

# Challenges & Opportunities

CHALLENGES	OPPORTUNITIES
<b>Waste Generation</b>	
<p>Population growth and increasing per capita waste generation is creating an ever increasing quantity of waste to be managed.</p> <p>Councils are not in control of many of the key drivers of this growth such as economic growth cycles, consumer trends, packaging design, and regulatory interventions.</p>	<p>Council has a strong voice in the local community, so can use this influencer role to promote key waste reduction messages.</p> <p>Council can directly impact waste generation behaviours via pricing strategies on its key services.</p> <p>Council can directly reduce its own waste generation with structural changes to its procurement policies and behaviours.</p>
<b>Policy Landscape</b>	
<p>A large amount of policy work is currently in development across all levels of government and in the wider industry, in direct response to the issues facing the sector and driven by increasing political attention.</p> <p>Difficulty for council is to remain responsive to this changing policy landscape whilst still being able to set our own long-term strategic agenda.</p>	<p>As a significant regional player, Council is well placed to play a leading role in development and implementation of this policy agenda, particularly as a voice for regional communities.</p> <p>Now is the time to revise our own waste strategy in light of this new policy landscape but must ensure it is an adaptive and agile strategic framework that can respond to further inevitable policy and industry change.</p> <p>Opportunities to access several new streams of government funding.</p>
<b>Market Development</b>	
<p>Market demand for recovered materials in our local economy are very limited.</p> <p>There is almost no secondary reprocessing of recyclable materials within our region, meaning all our recovered materials are transported out of region, interstate or overseas. This transportation burden reduces the value and is a lost opportunity for our local economy.</p>	<p>The development of commercially viable, local market opportunities for recovered materials can create jobs and economic growth, both the direct benefit arising from local reprocessing and the indirect benefits of creating local secondary and tertiary markets for the materials.</p>
<b>Technological and Investment Risks</b>	
<p>The new appetite for change presents the industry with a wide range of potential technological solutions, each with a complex mix of technical and commercial risk and rewards.</p> <p>Poor decision making could lock council into inappropriate or failed solutions.</p>	<p>Strategic review at this time gives council the opportunity to identify options that will deliver good quality outcomes for our community.</p> <p>Strong business cases need to be developed for all the key investment decisions, drawing on advice from regulators, technical consultants, private sector partners, industry representative bodies and other councils.</p>

## CHALLENGES

## OPPORTUNITIES

### Regional Collaboration

Regional communities don't have sufficient population size to generate enough waste to make investment in large scale resource recovery solutions commercially viable. Long distances between dispersed populations create further cost and operational impacts.

Combining regional feedstock can overcome these challenges but require contractual certainty and political partnerships between councils over the medium to long term. No formal mechanism currently exists in CQ to facilitate this collaboration.

Building on the long term historical relationship between CQ councils combining feedstocks into regional MRF has forged an environment of collaboration and strong working relationships.

Regional education campaigns and collaboration can deliver better outcomes and financial savings.

### Bin Contamination

High contamination levels in the recyclable stream reduces commodity value and creates operating inefficiencies.

The high contamination is generally the result of low community awareness of the commingled recycling process and of low levels of source separation across commercial waste generators.

Outmoded processing technologies are also not necessarily designed to efficiently deal with modern recyclable streams.

Targeted community education and awareness campaigns can drive down contamination rates.

Targeted business initiatives to encourage and enforce more user responsibility and source separation.

Integrated design of the collection infrastructure and processing technologies can minimise the impact of contamination and improve recovery rates.

### Environmental and Public Health

Littering and illegal dumping is a key risk arising from waste management decisions.

Waste management facilities need to manage leachate, landfill gas, stormwater, odour, dust, litter and visual impact.

Landfill sites need post closure remediation and monitoring.

Maintain strict adherence to compliance frameworks and regulations in respect of site management, emissions etc.

Education campaigns to address behaviour change with respect to illegal dumping and littering.

Ongoing public consultation to ensure Council has a "social licence to operate" across all of its facilities.

### Waste Data and Performance Management

The inconsistency of waste data and reporting requirements is a considerable blockage on understanding and monitoring performance.

Establish strategic measurement framework that is easily understood and communicated.

Investment in improved data capture and management systems and processes.

# Strategic Targets

**Our long term goal, in pursuit of our vision to live in a community without waste, is to become a zero-waste community by 2050.**

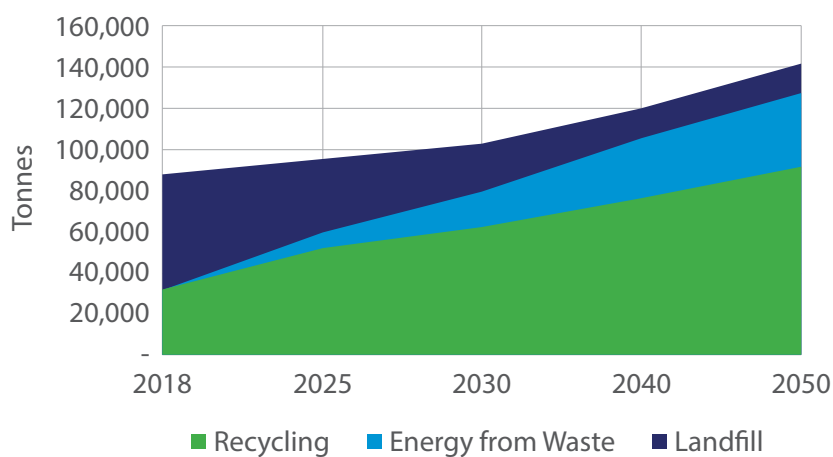
We acknowledge that there will always be residual wastes for which there is no viable alternative than to send to landfill, such as asbestos or contaminated soils. In line with the Queensland Waste Strategy, we have defined zero waste as achieving 90% diversion from landfill.

In order to measure progress against this long term target, our current waste streams have been modelled to 2050, with projections being based on the successful implementation of the actions outlined in this strategy. From this analysis, a series of targets have been established that reflect where we expect to be at given points along the journey.

Built into this modelling is an assumed 25% reduction in household waste between now and 2050, which aligns with the aspirations of the Queensland Waste Strategy.

We forecast that the total waste generated in our community by 2050 will be 142,000 tonnes per annum.

In order to meet a 90% diversion target, we anticipate diverting 65% of the waste stream through reuse and recycling, and a further 25% using waste to energy technology.



Total Waste Stream	2018	2025	2030	2040	2050
Waste Generated (tonnes)	88,803	96,205	103,017	120,871	142,212
Recycling %	37%	54%	61%	63%	65%
Energy from Waste %	0%	8%	17%	25%	25%
Total Diversion %	37%	63%	78%	88%	90%
Residual to Landfill %	63%	37%	22%	12%	10%
Residual to Landfill (tonnes)	55,796	35,739	22,873	14,422	14,179

*A more detailed breakdown of this modelling is provided in Appendix 1.*



Strategic Priority

# 01: Behaviour Change

## Empowering the community to embrace the principles of a circular economy.

To achieve our goal of zero waste by 2050, every one of us must play our part. Our whole community must rethink our relationship with the materials we consume and dispose of, from the purchase decision, product design, repairability, and the process by which the materials can be returned into productive use. In a circular economy there is no such thing as waste, only resources being returned into the economic cycle.

Council aims to be an advocate for change, engaging with our community, delivering education and being a catalyst for a whole of community response.



# KEY ACTIONS

## 1.1 Establish and implement a long term community engagement plan.

Taking a long term view of the key messaging required to embed the principles of a circular economy, we will liaise, partner and seek feedback from a wide range of stakeholders across sectors of the community to ensure we are delivering relevant outcomes.

## 1.2 Deliver a waste education and awareness program

### 1.2.1 Develop and deliver an annual waste education plan.

An annual plan will be formulated to set the scope and objectives of the program. Each annual plan will be designed to support the priorities of this strategy at that particular point in the strategic cycle, outlining key messaging, target audiences, delivery method and expected outcomes.

### 1.2.2 Deliver a regional education campaign in partnership with other CQ Councils.

Where neighbouring councils have the same messaging e.g. commingled recycling campaigns, there are benefits of pooling resources to procure media and marketing coverage that has a much bigger community reach.

## 1.3 Deliver an illegal dumping and littering reduction campaign.

To protect public health and the environment, we will work with other stakeholders to deliver strong messaging on the consequences of waste crime, coordinate education and support compliance activities.

## 1.4 Deliver a program of waste reduction strategies on behalf of our community.

### 1.4.1 Advocate and lobby government and industry stakeholders.

To bring about the legislative and policy changes that will lead to measurable reduction in waste generated within our community.

### 1.4.2 Leverage council's own policy and procedural resources.

In pursuit of best practices in waste reduction and resource management, including public events management, building infrastructure, development application requirements, etc.



Strategic Priority

## 02: Building Resource Recovery Capacity

### Maximising resource recovery opportunities across our community.

In order to divert 90% of our waste from landfill by 2050, our community will need the capacity to process up to an estimated 140,000 tonnes of materials per annum.

This will require infrastructure investment for sorting, separation and processing purposes. It will require partnerships with a wide range of stakeholders including waste generators, private operators, technical experts, regulators and financial partners. It will require broad community support and buy-in, commonly referred to as a social licence to operate.

In many instances, Council's role will be that of service provider and owner of the infrastructure. In other instances, Council will be partner or facilitator providing the support to allow private operators to deliver appropriate service.

# KEY ACTIONS

## 2.1

### Organic waste

#### 2.1.1 **Develop an organics business case.**

To establish best combined collections and processing solution to maximise the diversion of our organic waste stream.

#### 2.1.2 **Procure an organic kerbside collection service.**

If determined to be viable by the business case, procure the necessary infrastructure, plant, equipment and/or engage third party service provider.

#### 2.1.3 **Procure an organic processing solution.**

If determined to be viable by the business case, procure the necessary organics processing infrastructure, plant, equipment and/or engage third party service provider.

#### 2.1.4 **Commercial food waste action plan.**

Implement a long term strategy aimed at maximising commercial food waste diversion. Exploring a range of collection options and/or on-site processing options, education campaigns, financial incentives, private operator partnerships and development approval initiatives. Targeting large and small generators.

## 2.2

### Commingled recycling

#### 2.2.1 **Procure new MRF solution.**

Develop business case, determining preferred ownership model, preferred operating model, collections method, identify capital funding sources, determine viable material streams to include, secure external feedstocks, seek out wider sorting and processing opportunities.

#### 2.2.2 **Develop a plastics processing business case.**

Develop a business case to identify the most viable local processing solutions for the diversion of plastics.

#### 2.2.3 **Procure a plastics processing solution.**

If determined to be viable by the business case, procure a plastics processing solution.

## 2.3

### Mixed residual waste

- 2.3.1 **Develop an Alternative Waste Treatment (AWT\*) business case.**  
Undertake a technical analysis to establish best fit AWT solution(s) to process residual mixed waste into viable product and/or energy in line with diversion targets.
- 2.3.2 **Procure an AWT solution.**  
If determined to be viable by the business case, procure AWT solution(s).
- 2.3.3 **Develop a C&I and C&D sorting and separation solution.**  
Establish a processing solution for the cost effective diversion of materials from the C&I and C&D mixed waste stream, prior to feeding an AWT solution. It is envisioned that this will be a largely manual/mechanical solution, but the final scope will be contingent on the preferred AWT solution.

## 2.4

### Regulated and difficult waste

- 2.4.1 **Develop a solar panel management action plan.**  
Establish a policy position and management plan for accepting and processing solar panels.
- 2.4.2 **Develop a textile waste recovery action plan.**  
Develop business case for viable recovery of textiles from the waste stream, establish potential market demand and develop long term action plan.
- 2.4.3 **Develop a timber recovery action plan.**  
Establish a commercially viable solution for dealing with timber content in mixed waste streams.

**\*Alternative Waste Treatment** refers to a range of technological solutions that process mixed solid waste that would otherwise have gone to landfill into products such as compost, fuel or biogas, and increase recovery of resources including plastics, glass and metals. AWT solutions can be a single technology or a combination of several processes. Most common technologies employed around the world include aerobic composting, anaerobic digestion, mechanical biological treatment (MBT), process engineered fuel (PEF), pyrolysis and gasification.

## 2.5

### Infrastructure management

2.5.1

#### **Develop a concept plan for a Lakes Creek Road waste precinct.**

Establish a long term plan for the development of the Lakes Creek Road site, to take advantage of existing infrastructure, co-location potential for reuse of extracted landfill gas, and creating a community amenity to be a hub for education and engagement.

2.5.2

#### **Progressive construction of the piggyback landfill at Lakes Creek Road.**

Continue with the construction of the piggyback landfill and associated infrastructure in line with the design masterplan as amended over time by changing forecast consumption of airspace and design best practices.

2.5.3

#### **Procure landfill gas extraction infrastructure for Lakes Creek Road and Gracemere landfills.**

Procure services from a third party contractor to install, own and operate landfill gas extraction infrastructure across capped landfill site, with future capacity to expand to the new piggyback landfill.

2.5.4

#### **Upgrade of Gracemere Waste Transfer Station.**

Complete the final capping of the landfill site and construct upgraded waste transfer facility to meet the future needs of the Gracemere community.

2.5.5

#### **Implement a long term management plan for closed landfill sites.**

Establish a risk based plan to best manage Council's legacy.



Strategic Priority

## 03: Market Development

### **Optimising the returns to our local economy by retaining resources in the local production cycle.**

Retaining and circulating resources in the economy at their highest value for as long as possible will maximise the economic return on those resources. By keeping that economic activity local the benefits accrue to the local community in jobs, investment and secondary activities. Our local environment benefits from the lower demand on virgin materials.

Council is committed to developing and supporting sustainable local markets across a range of recovered materials and processed recycled products. As one of the largest organisations in our community, Council further acknowledges that it has a duty to lead by example and be amongst the largest purchaser of local recycled materials.

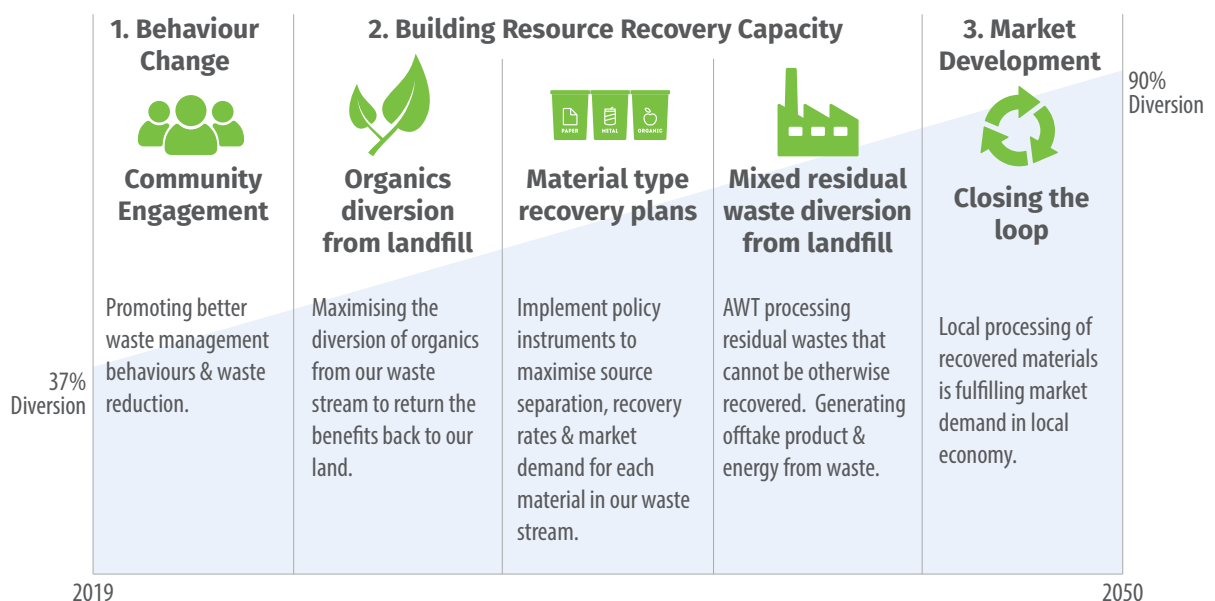
As a community, we need to ruthlessly drive up the quality of these materials. Higher quality materials are more likely to find a market. We need to treat waste as a tradeable commodity where quality is an important driver of price.

Regional communities have additional challenges to overcome, having to bear the cost of transportation to get materials to market. This creates an even greater imperative to seek out and support local processing solutions.

# KEY ACTIONS

- 3.1 Development of a sustainable, local compost market.**  
 Seek out sustainable markets for compost product from our chosen organics processing solution. Product could include composts, feed, nutrient supplements, fertilisers and soil conditioners.
- 3.2 Development of a sustainable AWT offtake product(s) market.**  
 Develop a sustainable market for offtake products from chosen AWT solution. Depending upon final solution selected, offtake products could include recovered separated materials, processed engineered fuel, biogas, bio char, heat, synthetic gas.
- 3.3. Development of a sustainable, local glass reuse market.**  
 Establish a diverse and commercially sustainable local market for glass fines received in local kerbside collections, primarily focusing on encouraging construction sector to use as a sand substitute in road base, asphalt, pipe bedding, block manufacture and similar applications.
- 3.4. Prioritise Council’s own procurement of recycled materials.**  
 Council will seek to adopt a comprehensive procurement position that prioritises the purchase of materials and goods that are manufactured from locally processed recovered materials.

## STRATEGIC ROADMAP TO A ZERO WASTE COMMUNITY



PRIORITIES	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>01: BEHAVIOUR CHANGE</b>										
1.1 Establish and implement a long term community engagement plan										
1.2 Waste Education										
1.1.1 Develop and deliver an annual waste education plan										
1.1.2 Deliver a regional education campaign in partnership with other CQ councils										
1.3 Deliver an illegal dumping and littering reduction campaign										
1.4 Deliver a program of waste reduction strategies on behalf of our community										
1.4.1 Advocate and lobby government and industry stakeholders										
1.4.2 Leverage council's own policy and procedural resources										
<b>02: BUILDING RESOURCE RECOVERY CAPACITY</b>										
2.1 Organic Waste										
2.1.1 Develop an organics business case to establish best combined collections and processing solution										
2.1.2 Procure an organic kerbside collection services										
2.1.3 Procure an organic processing solution										
2.1.4 Commercial food waste action plan										
2.2 Comingled Recycling										
2.2.1 Procure new MRF solution										
2.2.2 Develop a plastics processing business case										
2.2.3 Procure a plastics processing solution										
2.3 Mixed Residual Waste										
2.3.1 Develop an AWT business case										
2.3.2 Procure an AWT solution										
2.3.3 Develop a C&I and C&D sorting and separation solution										
2.4 Regulated and Difficult Waste										
2.4.1 Develop a solar panel management action plan										
2.4.2 Develop a textile waste recovery action plan										
2.4.3 Develop a timber recovery action plan										
2.5 Infrastructure Management										
2.5.1 Develop a concept plan for a Lakes Creek Road waste precinct										
2.5.2 Progressive construction of the piggyback landfill at Lakes Creek Road										
2.5.3 Procure landfill gas extraction infrastructure at Lakes Creek Road landfill										
2.5.4 Upgrade of Gracemere waste transfer station										
2.5.5 Implement a long term management plan for closed landfill sites										
<b>03: MARKET DEVELOPMENT</b>										
3.1 Development of a sustainable, local compost market										
3.2 Development of a sustainable AWT offtake product(s) market										
3.3 Development of a sustainable, local glass reuse market										
3.4 Prioritise Council's own procurement of recycled materials										

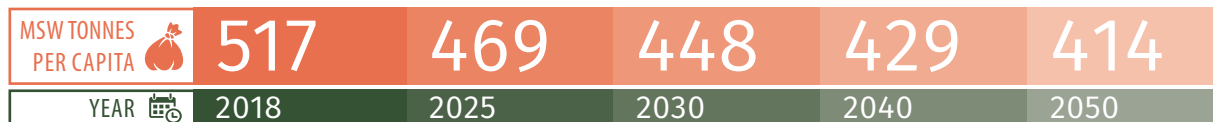


# Measuring Our Success

Over the life of this strategy we will implement a wide range of actions and will work with many partners from across the community. Some of these actions will be easy to track and have a very clear measure of success, whereas other actions will be much harder to measure directly or over the short term. A series of key performance indicators will therefore be used to track long term performance against our overall goal of a zero waste community by 2050.

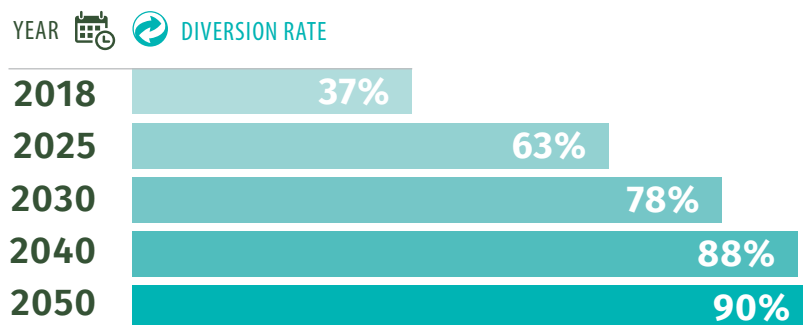
## MUNICIPAL SOLID WASTE GENERATED PER CAPITA

Measuring the broader community engagement in reducing overall waste.



## DIVERSION OF TOTAL WASTE FROM LANDFILL

Measuring the effectiveness of our investment in resource recovery.

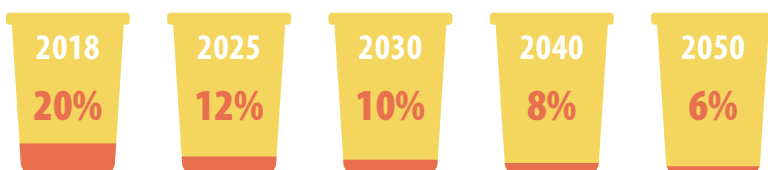


## CONTAMINATION RATES

Measuring the effectiveness of our community engagement



### COMMINGLED BIN CONTAMINATION % BY YEAR



The RRC Waste Strategy will be reviewed every three years and the key actions will be reviewed on an annual basis. More frequent review may be required should it be necessitated by significant change to the underlying assumptions such as dramatic changes in market conditions, or large-scale government policy shifts.



## C&D Recovery Success

**Over the past five years, our Civil Operations team has transformed a corner of our Lakes Creek Road Waste Facility into a C&D recovery centre.**

Seeing an opportunity to reduce operational costs by recycling materials such as concrete, asphalt and dirty fill, the Civil Operations team is now reprocessing up to 30,000 tonnes per annum. Named after plant operator Terry Dale, the Dale Park site screens, grinds and separates the input materials into several clean products for reuse in civil construction projects across council and used to support the operations of the Lakes Creek Road landfill. Supervisor Mick Baker explains the commercial thinking behind the project:

*"It was costing us \$180-\$200 per tonne to dump the material and at around 90 tonnes per day, the costs were huge. It now costs us around \$20 per tonne to crush material, so there are savings not only in disposal costs but of course, we are no longer purchasing the products as we are producing them in-house."*

Council's commitment to recycling these materials has meant that we are now at the leading edge of what is standard industry practice, producing several grades of gravel profile as well as quality

topsoil and recycled asphalt. Mick goes on to say:

*"In all my experience, I have never seen such good quality materials as what we have in our stockpiles now and we are also in the testing phase of producing high grade road base. Apart from some major cities, there are few Councils who are recycling and producing materials to the level that we do".*

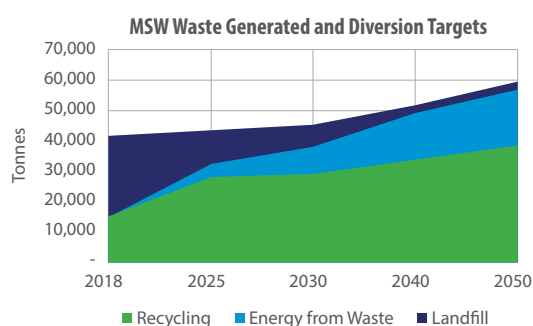
The project has not only of course saved money but has also resulted in a very significant diversion of materials from landfill. Civil Operations Manager David Bremert expressed pride in the project saying:

*"The recycling of the materials meets the requirements from Council to reduce our impact on the environment and to be cost efficient. Since the beginning of this project, Council has saved a large sum of money which has been able to be used back on the roads. Special thanks go out to Mick and Terry who have developed a sensational facility".*

# Appendix 1 - Waste Stream Data

## MUNICIPAL SOLID WASTE (MSW)

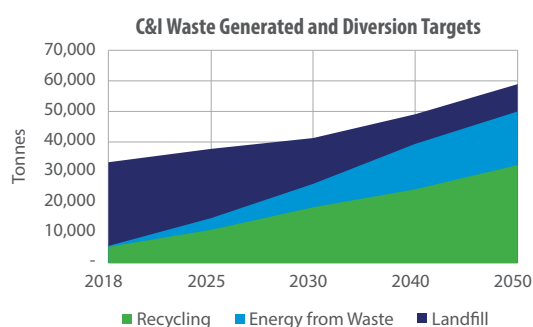
The MSW forecast has factored in a 25% per capita reduction in household waste between 2018 and 2050, in line with the Queensland Strategy. The combined impact of this per capital reduction with the increased population over the same period will result in a forecast of 59,742 tonnes of MSW waste in 2050. Diversion will come via commingled recycling, self-haul drop off of recyclables, self-haul green waste, organic diversion to an organics processing facility and mixed waste diversion into an AWT converting waste to energy.



	MSW	2018	2025	2030	2040	2050
Waste Generated (tonnes)		42,166	43,386	45,279	51,867	59,742
Recycling %		37%	65%	65%	65%	65%
Energy from Waste %		0%	10%	20%	30%	30%
Total Diversion %		37%	75%	85%	95%	95%
Residual to Landfill %		63%	25%	15%	5%	5%
Residual to Landfill (tonnes)		26,488	10,846	6,792	2,593	2,987

## COMMERCIAL AND INDUSTRIAL (C&I)

The C&I forecast waste at 2050 is 58,906 tonnes. This waste stream will require the biggest improvement in diversion performance. It is anticipated that 55% diversion will be achieved from processing of the organic fraction, improving the current level of source separation and self-haul recycling drop-off, as well as implementing a sorting/separation facility to further extract value out of the mixed waste prior to feeding it into an AWT solution. The AWT will then yield a further 30% recovery via energy from waste.

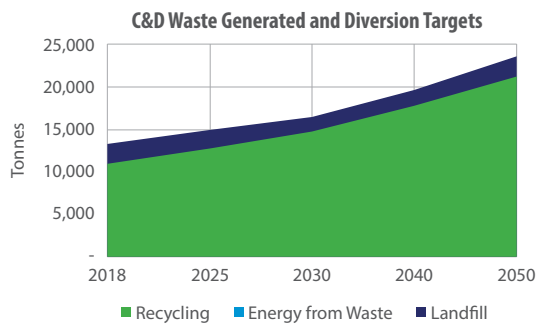


	C&I	2018	2025	2030	2040	2050
Waste Generated (tonnes)		33,284	37,711	41,229	49,281	58,906
Recycling %		18%	30%	45%	50%	55%
Energy from Waste %		0%	10%	20%	30%	30%
Total Diversion %		18%	40%	65%	80%	85%
Residual to Landfill %		82%	60%	35%	20%	15%
Residual to Landfill (tonnes)		27,173	22,626	14,430	9,856	8,836

## CONSTRUCTION AND DEMOLITION (C&D)

The C&D forecast waste at 2050 is 23,565 tonnes. However, C&D forecasts can vary significantly dependent upon just one or two major projects being undertaken in any given year.

Current diversion is extremely high due to the work over the last five years of Council's Civil Operations team to divert materials from their roads and construction activities. Since this waste stream is largely inert materials with negligible calorific value, it is not suited to waste to energy processing. The current recovery rates are therefore anticipated to continue with small improvements to 2050 based on implementing better technology and a reduction in mixed waste loads being received from commercial construction sites.

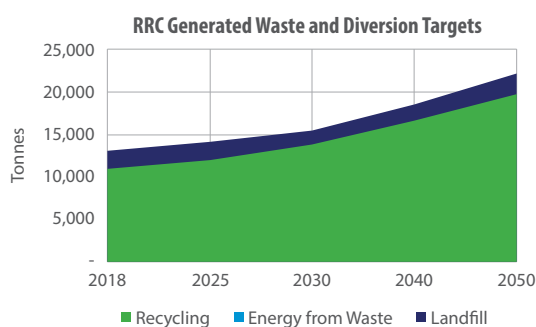


C&D	2018	2025	2030	2040	2050
Waste Generated (tonnes)	13,353	15,109	16,509	19,723	23,565
Recycling %	84%	85%	90%	90%	90%
Energy from Waste %	0%	0%	0%	0%	0%
Total Diversion %	84%	85%	90%	90%	90%
Residual to Landfill %	16%	15%	10%	10%	10%
Residual to Landfill (tonnes)	2,135	2,266	1,651	1,972	2,356

## ROCKHAMPTON REGIONAL COUNCIL GENERATED WASTE

The Waste Reduction and Recycling Act 2011 requires that we set targets for overall waste reduction and recycling rates for Council's own waste.

Waste generated by Council's own activities is forecast to be 22,044 tonnes by 2050. The majority of this waste is Construction & Demolition materials arising from roads, water, sewerage, facilities management etc. This waste is generally made up of masonry materials so is not suitable for energy from waste processes. As such, no Energy from Waste target is set for Council's own waste.



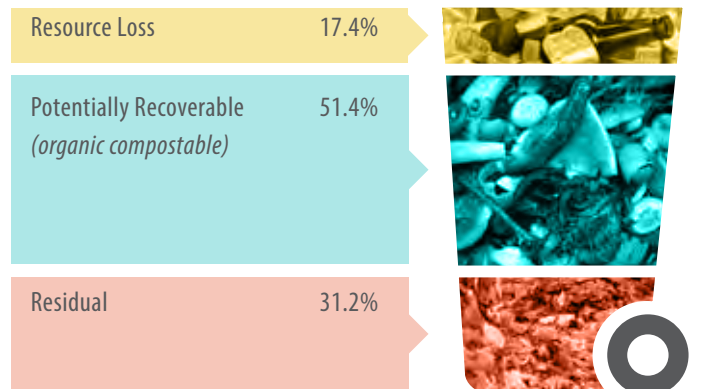
RRC	2018	2025	2030	2040	2050
Recycling %	88%	85%	90%	90%	90%
Energy from Waste %	0%	0%	0%	0%	0%
Total Diversion %	88%	85%	90%	90%	90%
Residual to Landfill %	12%	15%	10%	10%	10%
Residual to Landfill (tonnes)	1,447	2,117	1,543	1,844	2,204

## KERBSIDE BIN COMPOSITION

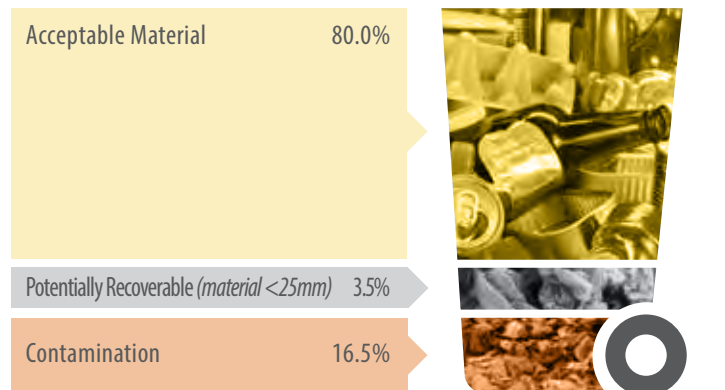
When modelling the data, some information was not directly available from weighbridge data capture, for example, we don't directly capture the material composition of mixed loads arriving at our site.

As such, estimates of particular material volumes have been included in the modelling which have been derived from other sources. A key source has been our annual bin audit, which takes a sample of 500 kerbside bins (250 general waste and 250 commingled recycling) and determines the average bin weight and composition by material type. The graphic above shows the results of the 2018 bin audit.

### RRC Domestic Kerbside General Waste 2018



### RRC Domestic Kerbside Recycling 2018







## Glass Reused in Landfill Construction

### **Rockhampton Regional Council's Waste and Recycling team have introduced yet another innovative solution at their Lakes Creek Waste Facility.**

Last year the 'Piggyback' project was commenced, extending the lifespan of the landfill site for another 40+ years by adding a series of additional cells.

Chair of Council's Waste Committee, Councillor Neil Fisher, said Council was now making the Piggyback project more environmentally sustainable by using recycled materials in the cells:

*"It's really important that each of the cells has an excellent lining system to ensure liquid that is generated as waste decomposes does not enter the environment. This lining needs to be protected when the cell is initially filled to ensure sharp waste doesn't damage it, and part of that protection would usually be provided by sand supplied from the local area. However, our Waste and Recycling team will instead be taking glass from our local recycling facility after it has been crushed into tiny particles, similar in size to sand. This means we will be using 100% recycled materials rather than taking sand from the natural environment."*

Councillor Neil Fisher said that its use wouldn't stop there: "As we build more cells, we will also use the processed glass in their construction, meaning that the glass from our recycling plant will be put to good use right here in Rockhampton. We are also working with our Civil Operations team to use the material effectively in some of their projects."



Council collects around 1,200 tonnes of glass per annum in the kerbside recycling bin, which is approximately 2.8M glass bottles recycled each year.







# Waste STRATEGY

2020-2030

*Building a Circular Economy*



## **Annexure C**

# A NEW DIMENSION

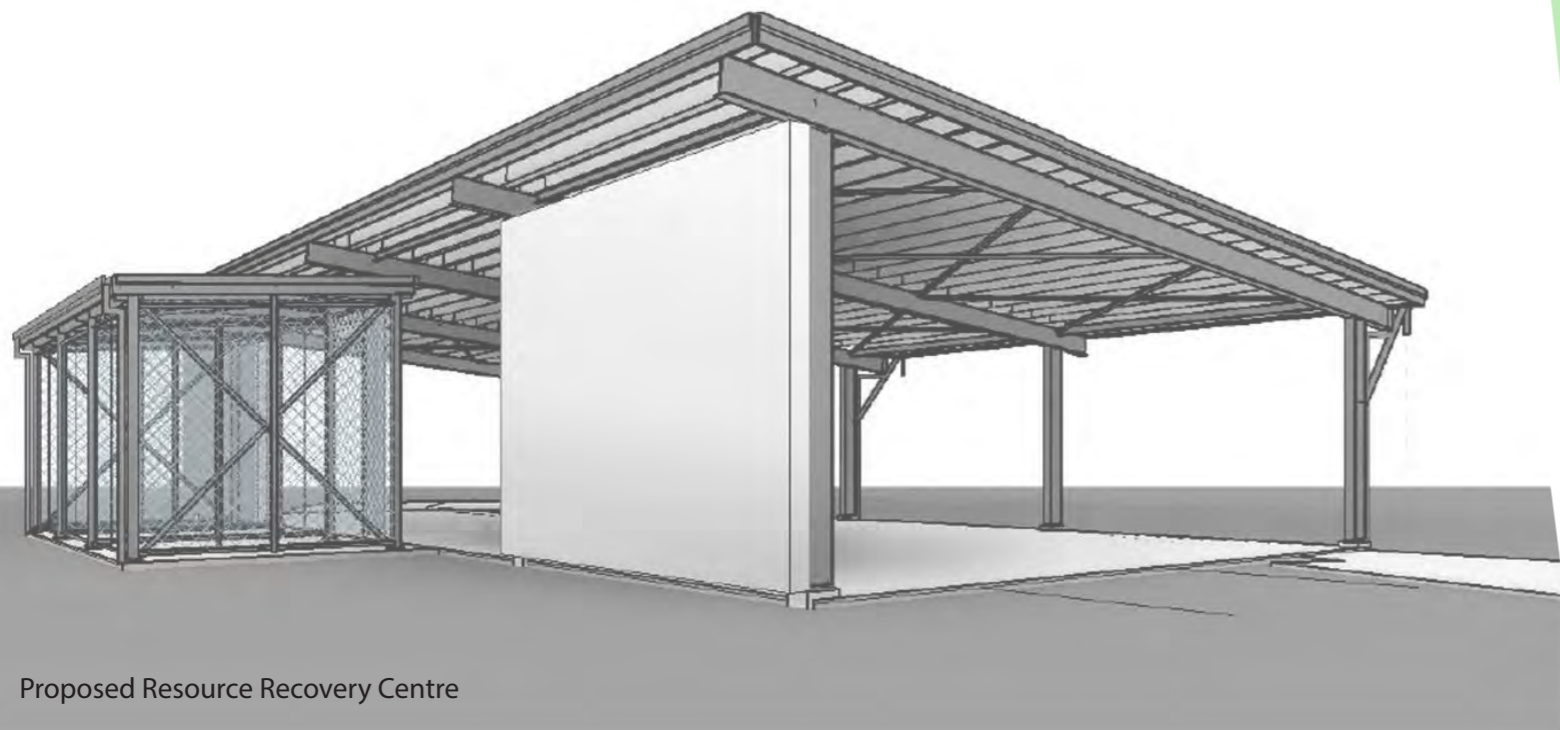
A Strategy for the Management of  
Resource Recovery and Waste in  
Livingstone Shire to 2030



## Acknowledgement of Country

Livingstone Shire Council acknowledges and pays respect to the Darumbal and Woppaburra people as Traditional Custodians of the land within Livingstone. Council also acknowledges and pays its respects to the Aboriginal and Torres Strait Islander people who now reside within this area.

The Our Living Coast Strategy commits to acknowledging the history and ongoing contributions of Aboriginal and Torres Strait Islander people to the Livingstone region and the fundamental role they play in shaping our region.



Proposed Resource Recovery Centre

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## VISION

Livingstone Shire Council leads and supports the community to transition to a circular economy for better health, environmental and sustainability outcomes.



## MAYOR'S MESSAGE

Recently, there has been rapid change in the waste management space, with both the Queensland and Federal governments reflecting this change in their respective waste governance frameworks.

These frameworks clearly outline their respective positions on waste, with a stated desire to move away from the traditional linear model approach to waste, to more of a circular economy approach where waste avoidance, reuse and recycling are central.

The Queensland government has also taken a strong stance on single use plastic and introduced the ban on single-use lightweight plastic bags, as well as introducing the Container Refund Scheme and Waste Levy. Technological changes have also assisted in identifying new ways of managing waste.

Of particular significance for me has been the rise in interest in our community for responsible and sustainable waste management approaches and practices in Livingstone.

**Mayor Andy Ireland**

To keep pace with the changing policy and legislative environment as well as community expectations, Livingstone Shire Council has developed this strategy, which provides a clear strategic direction and action plan for Council out to 2030.

With a focus on changing behaviours in our community to enable resource recovery and excellence in waste management, the strategy outlines key themes and Council's waste management priorities and associated actions to achieve this.

Livingstone Shire Council strives to create a sustainable future for our community and looks forward to moving into a new dimension of waste management.

# INTRODUCTION

Waste production and management is a complex environmental, economic, social, cultural and governance challenge that affects us all. Waste management is a rapidly changing space targeting a circular economy rather than a linear one.

A circular economy is one where resources are retained in the productive cycle for as long as possible, minimising our consumption and maximising the benefits of those resources in our local economy.

A New Dimension: A Strategy for the Management of Waste in Livingstone Shire to 2030 is Livingstone Shire Council's proposed response to the challenge of moving from a throwaway society to a more sustainable future.

The document importantly outlines the strategies we will employ to promote and support the transition of our community towards a circular economy and to position the Livingstone community on a path towards a zero waste community in the future.

The Strategy outlines the key policy drivers in waste, particularly from higher levels of government. It outlines our current situation in terms of waste collection and disposal services and that the necessary changes are a shared responsibility between Council and community if we are to make this step into a new dimension of waste reduction and management.

The major challenges and opportunities are identified before discussing central themes, priorities and actions we will undertake over the next 10 years.

The final part of the Strategy establishes how we will monitor our progress and how we will report on this. This reporting will be used to review and revise the strategy as necessary.



# KEY DRIVERS

Expectations from the Livingstone community as well as several national and state legislative and policy requirements are the key drivers that guide the direction of this plan.

Community Expectations

National Waste Policy

Queensland Waste Management and Resource Recovery Strategy

Waste Reduction & Recycling Act 2011

Queensland Waste Levy

Interaction with Livingstone Community Plan – Towards 2050



## Community Expectations

Recent events held by Council like the War on Waste workshops, the Sustainable Livingstone Expo and other waste related events, as well as contributions from the community to governance documents such as the Community Plan Towards 2050, the Environmental Sustainability policy and climate change frameworks have not only highlighted the interest in waste management within the community but also the countless opportunities that are in this space.

There is a rising expectation that Council, other key players and also the community play a role in creating a more sustainable community and one which keeps pace with the changes that are currently occurring in the waste space by overcoming some of the obstacles and taking advantage of the many benefits that can be had.



## National Waste Policy

The Australian Government's National Waste Policy, revised in 2018 is aimed at providing a common national approach to waste management, applying the principles of a circular economy and giving effect to Australia's international obligations e.g. UN Sustainable Development Goal 12 on responsible consumption and production.



## Queensland Waste Management and Resource Recovery Strategy

The Queensland Government's Waste Management and Resource Recovery Strategy (Queensland Waste Strategy) was adopted in July 2019 to provide a coordinated framework to deliver on the principles of the circular economy. It outlines a vision of a zero-waste society, which it further defines by way of a series of progressive targets for waste reduction and resource recovery to 2050.

Aligned around three (3) strategic priorities, it promotes sustainable waste management practices for business, industry, local governments and households and sets the outline of a progressive policy and supporting regulatory framework. The introduction of a waste disposal levy in 2019 provided the funding framework to implement the Queensland Waste Strategy whilst also sending a pricing signal to waste generators and acting as a disincentive for inter-state dumping practices.



## Waste Reduction & Recycling Act 2011

The Waste Reduction & Recycling Act 2011 provides the waste management legislative framework in Queensland. Local government entities are required to adopt a Waste Reduction and Recycling Plan, which must set clear guidelines for waste management within the local government area in order to best achieve the objectives of the Act. The Act further requires that the Waste Reduction & Recycling Plan is reviewed as a minimum every three years. This strategy document is the Waste Reduction and Recycling Plan for Livingstone Shire Council



## Queensland Waste Levy

The Waste Levy commenced on 1 July 2019. The levy zone includes 39 out of 77 local government areas, including Livingstone Shire Council. Waste disposed of in the levy zone, or waste that originates in the levy zone or interstate and is disposed of in the non-levy zone will be liable for the levy.

The waste levy aims to:

- Reduce the amount of waste going to landfill;
- Encourage waste avoidance;
- Provide a source of funding to enable better resource recovery practices;
- Provide certainty and security of feedstocks for advanced technology; and
- Facilitate industry investment in resource recovery infrastructure.

Prior to the 2020 election the Queensland Government promised that the waste levy would have no impact on households, albeit there is no certainty as to how long this commitment might last.



## Interaction with Livingstone Community Plan – Towards 2050

The Livingstone Community Plan – Towards 2050 is a 30-year community-planning project guided by the Livingstone community, for the community.

Livingstone Shire Council has led a whole of community planning process to develop a 30-year vision with clear community priorities for the region. The process will shape and define the future priority projects and strategies which Council implements and / or influences. The process has involved long-term thinking and collaboration with the community.

The community planning process identifies where the community is now, as well as where it wants to be in the future. It provides a clear set of strategies with a view to achieving the community's priorities and aspirations for the future. It is a form of direct democracy and allows stakeholders to participate and work together towards a common goal.

Specifically the Waste Strategy will deliver on the following areas of the Community Plan:

Theme 3: Natural Livingstone

Goal 3.1 - Enhanced reuse and recycling of resources.

Strategy 3.1.1 - Investigate options for locally-based, accessible re-use and recycling systems for waste, water and energy.

Strategy 3.1.2 - Support transitions to alternative forms of energy.

Strategy 3.1.3 - Review options to incentivise businesses and households to participate and invest in re-use, recycling and energy and water saving practices.

Goal 3.2 - Protection of coastlines and waterways

Strategy 3.2.3 - Pursue excellence in environmental and industry practices to protect and enhance environmental health.

Theme 5: Future Livingstone





Goal 5.3 - Community capacity & resilience in respect of future risk.

Strategy 5.3.2 - Support the community to build its capacity and adapt to changing social, economic and climatic conditions, including ensure resilience of infrastructure to respond to changing climate and disasters.



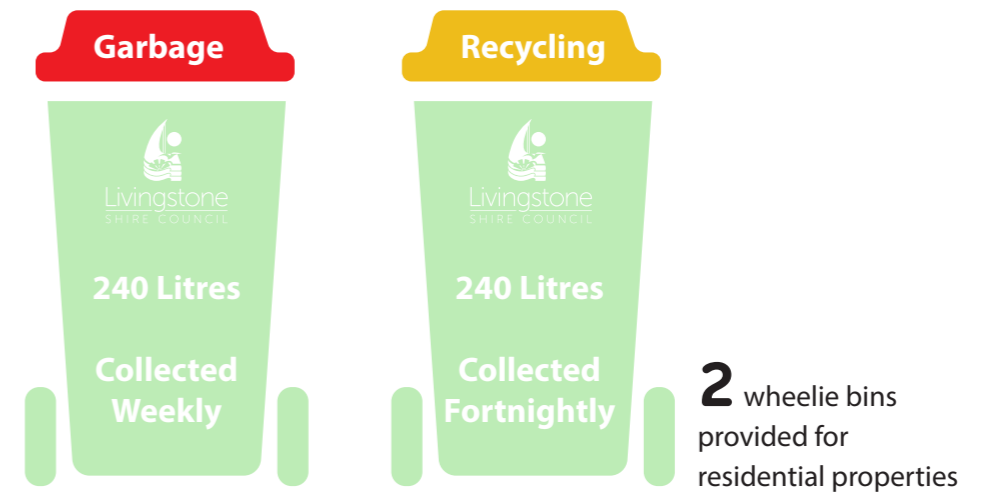
# CURRENT SITUATION

Livingstone Shire Council currently manages a complex waste management system that includes:

-  Kerbside waste and recycling services
-  Public place waste collection
-  Sorting and recovery
-  Landfill and transfer stations



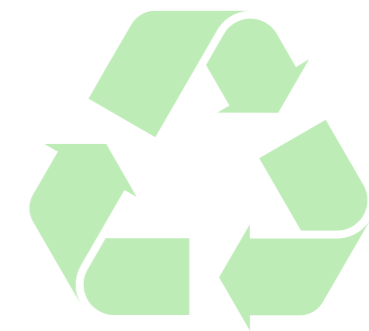
## Waste Collection Services KERBSIDE COLLECTION SERVICES



**850,000+**  
kerbside services completed by our contractor in the 2019-20 financial year



**8,083** tonnes of waste collected in 2019-20 financial year



**1,704** tonnes of recyclables collected in 2019-20 financial year

### PUBLIC PLACE BIN COLLECTIONS



A variety of bin types collected from reserves, towns centres and shopping precincts.

Daily, weekly or fortnightly collections, depending on demand and where the bin is located.

# Waste and Resource Recovery Infrastructure

We manage a range of waste and resource recovery facilities to support our community and local businesses.

## YEPPOON LANDFILL

- A council-owned site
- Services provided under contract
- Managed in accordance with Environmental Authority (EA) requirements
- Site users typically pay a disposal charge that includes a landfill levy on municipal, commercial and industrial/construction and demolition waste
- Landfill levy rates are set and collected by Council on behalf of the State Government

## TRANSFER STATIONS

Emu Park, Cawarral, Byfield, The Caves and Marlborough.

- Serves as temporary disposal points for excess domestic waste, recycling, electronic equipment and white goods, which are then transferred in bulk to the Yeppoon Landfill
- Provides additional recycling options for recyclables and items that are not suitable for residential kerbside bins

## UNMANNED BIN STATIONS

Farnborough (Recycling), Nerimbera (Recycling), Ogmore (General Waste) and Stange Bay (General Waste).

- Serves as temporary disposal points for either general waste or recycling
- Very limited bin capacity



## 2019-20 SNAPSHOT



**3,310** tonnes of domestic general waste disposed at Yeppoon Landfill from transfer stations



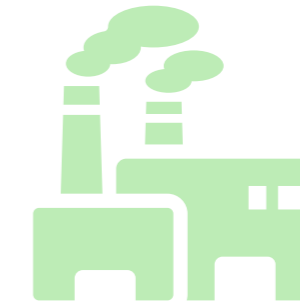
**1,177** tonnes of steel recovered



**14.8** tonnes of e-waste recovered



**1,015** tonnes of construction and demolition waste sent to landfill



**5,060** tonnes of commercial and industrial waste sent to landfill



**700** public place bin services per week



**5,975** tonnes of green waste recovered and mulched from all waste facilities



## Council Responsibilities

While much of what shapes the Livingstone Shire waste management system is determined by global and national forces, there are still many aspects of the system we can influence and control (see Table 1).

For example, we can:

- control the products used, waste generated and waste separated in our own buildings and operations
- establish policies and practices that avoid waste and increase resource recovery
- provide services and infrastructure that support the community to collect, sort and recover waste
- educate the community about reducing contamination, improving resource recovery and avoid waste
- use partnership and advocacy to influence the Livingstone Shire waste management system

## Whole of Community Responsibilities

Everyone has a role to play in supporting a circular economy – whether it is by purchasing more sustainable products or correctly separating waste from recyclables.

Some examples of how we can have a positive impact include:

- avoiding waste, by making sustainable consumer choices
- separating resources from the waste produced in homes, public places and workplaces
- reducing contamination of kerbside recycling and garden organic bins
- taking action to increase resource recovery and improve understanding about waste issues
- reduce litter in built and natural environment, conduct clean-ups and source reduction activities

Table 1: Council's areas of control and influence

ADVOCATE	<ul style="list-style-type: none"> <li>• Government legislation and policies</li> <li>• Public and private investment on waste technologies</li> <li>• Industry capabilities and market changes</li> <li>• For our community at state and federal levels</li> </ul>
INFLUENCE	<ul style="list-style-type: none"> <li>• Infrastructure and services</li> <li>• Community's waste consumption and resource recovery practices</li> <li>• Industry, research and development and commercial sectors</li> </ul>
CONTROL	<ul style="list-style-type: none"> <li>• Livingstone's waste services and infrastructure</li> <li>• Waste and resource recovery plans and policies for our buildings and operations</li> <li>• Community education about waste and resource recovery</li> <li>• Procurement decisions to move markets towards products that adhere to circular economy principles</li> </ul>

## WASTE - A SHARED RESPONSIBILITY

Council invests a lot of time and resources into managing waste and resource recovery, however we are only one player in a complex system. It is up to everyone in the Livingstone community to play a role in resource recovery and waste management.

# CHALLENGES AND OPPORTUNITIES

The key challenges and opportunities within Livingstone shire for waste and resource recovery management and increasing landfill diversion are highlighted below.

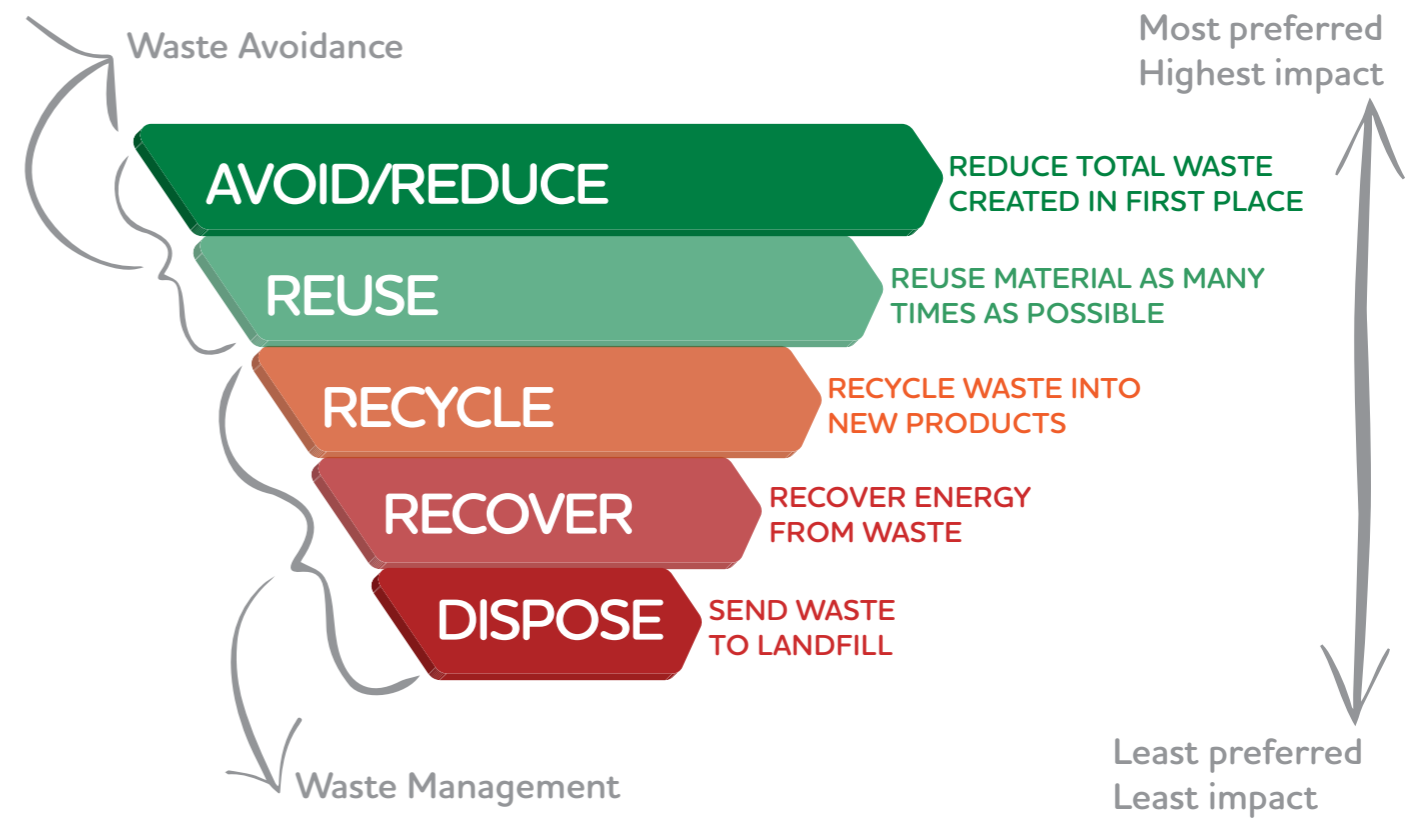
	Waste Services	Organics Processing	Data Management	Landfill Gas	Waste Contamination	Education and Engagement
Challenges	The current two bin kerbside collection service offered by Council does not allow for recovery of garden organics and/or food organics (FOGO) which are a significant greenhouse gas producer at our Landfills. An additional bin would add cost to ratepayers and increase truck movements. To be economically viable, bin services cannot be hit and miss but need to cover an entire street and zone.	The implementation of separated organics collection at the kerbside would require detailed planning and implementation, including development of a business case, and an engagement and education program for users of the service. Green waste received at the depot will increase and beneficial uses will need to be developed.	Inconsistencies in the current waste data set may hinder the ability to benchmark Livingstone's performance across the region and develop achievable resource recovery and waste management targets.	Landfill gas content in the Yeppoon landfill has been estimated at approximately 13,000 tonnes of CO2-e or around 65% of Council's current carbon footprint in a recent carbon audit undertaken for Council (Pacific Environment 2017).	Contamination in the recyclable stream reduces commodity value and creates operating inefficiencies. High contamination is generally the result of low community awareness and understanding of the commingled recycling process and of low levels of source separation across commercial waste generators. Outdated processing technologies are also not necessarily designed to efficiently deal with modern recyclable streams.	Council does not have an education officer to lead waste management education and engagement programs. Investment in this resource is likely to deliver significant cost benefits if behavioural change can be embedded.
Opportunities	It is estimated that 20-30% of waste in kerbside red lid bins is green waste, and a further 20-30% is food waste. To increase resource recovery, recycling (a third organics bin) can be used to promote the separation of organics. There could be potential to work with local industry and business to improve recycling rates.	Infrastructure provides opportunities to target the recovery of food organics and garden organics (FOGO). Facilities may be suitable for the region with the potential to co-locate at the Yeppoon Landfill or the opportunity for local business to explore organics infrastructure. There are infrastructure options that have the potential to produce energy and recycle organics if scale issues can be addressed economically	The introduction of standard data collection systems would allow for clear and consistent data to be reported and monitored to highlight trends and track targets.	To capture landfill gas either for electricity generation or for flaring which still reduces it's greenhouse gas potential and Council's overall carbon footprint.	Targeted community education and awareness campaigns can drive down contamination rates. Targeted business initiatives to encourage and enforce more user responsibility and source separation. Integrated design of the collection infrastructure and processing technologies can minimise the impact of contamination and improve recovery rates.	The development of an engagement and education program could assist with improving resource recovery and decreasing contamination rates in household kerbside recycling bins, as well as litter and illegal dumping along with behavioural change in the community.

# WASTE HIERARCHY

The waste and resource management hierarchy is a framework that guides the order of preference for managing waste.

The hierarchy shapes this Strategy's priorities and provides the basis for the development of the strategic actions. The hierarchy posits that waste should be avoided as a first priority, after which options for reuse and recycling should be explored.

The options of fuel production, energy production or disposal should be reserved for residual waste that is unsuitable for higher order options. Disposal of waste is the least preferred option in the Waste hierarchy and should be considered as almost a 'last resort'.



# THEMES, PRIORITIES AND ACTIONS

The themes, priorities and actions that are contained in this strategy have been informed by the waste hierarchy, as discussed above.

Council will invest in changing behaviours in the community through reducing the generation of waste in Livingstone shire and improving resource recovery to extract value from materials in the waste stream, before considering landfill disposal. Council is committed to managing waste at the highest practical level of the hierarchy in order to achieve the best outcome for both the environment and future generations.

The main themes in this strategy are: behavioural change, resource recovery and excellence in waste management. Details of each theme, the priorities within these themes and actions to achieve these priorities and themes are contained below:

## Theme 1 BEHAVIOURAL CHANGE

## Theme 2 RESOURCE RECOVERY

## Theme 3 EXCELLENCE IN WASTE MANAGEMENT



# Theme 1

## Behavioural Change

Council will partner with our community and empower them to embrace the principles of a circular economy. We all need to change the way we look at consumption and waste. In a circular economy everything is a potential

resource which can be returned into the economic cycle. Council will be an advocate for change, engaging with our community, delivering education and being a catalyst for a whole of community response to change.



## PRIORITIES AND ACTIONS

### 1.1 Education

#### Actions

Employ a dedicated Waste/Sustainability Education Officer to promote the circular economy:

- Deliver an annual Waste Education program targeting primary schools
- Develop specific education campaigns on topics such as Sustainable Livingstone, Illegal dumping and littering, the 3 R's - Reduce, Reuse and Recycle, Plastics, Disposal of invasive species etc

Develop a dedicated Resource Recovery and Waste Education Centre

### 1.2 Empowering the Community

#### Actions

Identify community champions and provide supporting resources

Run events throughout the year such as the Sustainable Livingstone Expo, National Recycling Week and various workshops and forums on specific waste and sustainability topics

Employ behavioural change education experts at events

Develop online training sessions for the community

Maintain and update the Livingstone Waste Wise App

Engage with local businesses to promote waste reduction to visitors to Livingstone shire

Develop incentive/subsidy programs including: Reusable Nappies and Sanitary products, Worm Farms, Composting Bins, Mulchers

### 1.3 Monitoring and Evaluation to gauge program effectiveness

#### Actions

Establish appropriate baseline and ongoing monitoring programs to track success of behavioural change programs and inform the necessary adjustments to education programs

## Theme 2

# Resource Recovery

Council will maximise resource recovery opportunities across our community. This will require infrastructure investment for sorting, separation and processing purposes. It will require partnerships with a wide range of stakeholders including local Councils within this region, waste generators, private operators, technical experts, regulators and financial partners.

It will require broad community support and buy-in, commonly referred to as a social licence to operate. In many instances, Council's role will be that of service provider and owner of the infrastructure. In other instances, Council will be partner or facilitator providing the support to allow private operators to deliver appropriate service.



## PRIORITIES AND ACTIONS

### 2.1 Reuse of waste products

#### Actions

- Conduct regular resource recovery audits
- Continue the reuse of products such as cardboard, glass, wood, waste oil
- Continue operation of Recycle Market and promote and market the business

### 2.2 Creating separation

#### Actions

- Provide accessible separation facilities at landfill and transfer stations
- Engage commercial operators to remove bulk products from waste stream (fridges, furniture etc.)

### 2.3 Tailor waste disposal choices

#### Actions

- Cost out the annual or biannual pick-up of larger, bulkier items (eg. whitegoods, appliances, shelves etc.) and consult with community
- Engage ratepayers on the cost of waste vouchers and future funding of this program
- Develop a new policy on the expansion of kerbside bin collection services currently not serviced

### 2.4 Avoidance of contaminated waste

#### Actions

- Run programs to ensure separation of waste from recoverables/recyclables, such as in recycling bins etc

### 2.5 Food Organics Garden Organics (FOGO)

#### Actions

- Review opportunities for FOGO kerbside collection
- Commence community engagement around FOGO
- Promote food waste management programs such as "Love Food Hate Waste" to the community
- Partner with local business to install organics infrastructure for the recovery of FOGO



## Theme 3

# Excellence in Waste Management

Council aims to be at the forefront of the changing world in waste, leading by example, being innovative, improving our sustainability and changing our focus. Achieving the best outcomes for Livingstone Shire requires Council to effectively manage risk and maximise opportunities wherever possible. This strategy is underlined by the principles

of sustainability which inform our corporate governance. Council will work within the Livingstone community and at all levels of government to address waste matters in the Livingstone Shire. Most importantly Council will lead by example and continually advocate for improved practice and actions in waste management.



## PRIORITIES AND ACTIONS

### 3.1 Sustainable Governance and Procurement

#### Actions

Ensure sustainability principles and practices are embedded in all Council procurement processes

Ensure product control by mandating waste management plans are included in all Council tender documents, project plans and development applications

Introduce standard data collection systems to enable effective benchmarking and target setting

Include best practice waste management principles and practices in all Council work procedures

Develop a Master Plan for the Yeppoon Landfill site

### 3.2 Advocacy and Leadership

#### Actions

Support and advocate for a regional approach to waste management, including a regional landfill facility, through the Central Queensland Regional Organisation of Councils (CQROC)

Advocate for legislative and regulatory improvements to reduce and manage waste and litter

Advocate to Australian and Queensland governments for a focus on waste and resource recovery, separation of recyclables and litter avoidance through Council's membership of the Waste Management and Resource Recovery Association Australia (WMRR) and Local Authority Waste Management Advisory Committee North Queensland (LAWMAC)

Advocate for local reprocessing of waste and recycling materials for beneficial uses within Central Queensland

Advocate to relevant industry and businesses on packaging stewardship responsibility

### 3.4 Innovation

#### Actions

Develop a market process to monitor and capture or flare landfill gas

Liaise with local industries and business regarding the development of a private compost facility



## How We Will Implement The Plan

Once the Strategy is endorsed, we will develop a rolling implementation plan to be delivered every two (2) years.

The implementation plan will identify:

- the strategic actions we will be working on
  - specific timelines for each action
  - resources required
  - our progress to date
- trends in the waste sector
  - community expectations
  - our annual budget
  - changes in our priorities and programs
  - changes in federal and state government policies and programs

## How We Will Fund The Implementation

The funding needed to implement the strategic actions for each two-year period will be considered in our annual planning and budgeting cycles. We will also seek external funding opportunities to further progress our vision, goals and strategic actions.

## How We Will Report

Council will report through internal reporting frameworks such as Quarterly Reporting through the Operational Plan. Reporting will be informed through: surveys, records within Council's Waste Collection System, Livingstone Shire Council data collection, monitoring and evaluation of local initiatives.

HOW WE WILL  
MEASURE OUR SUCCESS



# REFERENCES

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Commonwealth of Australia, 2018, National Waste Policy: less waste more resources

Queensland Government, 2019, Waste Management and Resource Recovery Strategy (Queensland Waste Strategy)





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[www.twitter.com/CouncilLSC](https://www.twitter.com/CouncilLSC)



[www.livingstone.qld.gov.au](http://www.livingstone.qld.gov.au)

## **Annexure D**

# Amendment on Waste Reduction and Recycling Plan

2016-2026

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<b>Revision</b>	<b>Date</b>	<b>Description</b>	<b>By</b>	<b>Review</b>	<b>Approved</b>
Final V5	2 September 2019	Waste Reduction and Recycling Plan (2016 – 2026)	Rinku Shrestha	Geoff Atherfold	Kirstin Byrne
Final V5	1 October 2019	Waste Reduction and Recycling Plan (2016 – 2026)	Rinku Shrestha	Geoff Atherfold	Kirstin Byrne

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## Executive summary

The Central Highland's Regional Council is facing challenges relating to the collection, processing, treatment and disposal of solid waste. These challenges include short, medium- and long-term disposal options for the region, transportation distances, education and the reduction of waste being sent to landfill.

The amendment to the Waste Reduction and Recycling Plan (WRRP) 2016 – 2026 has been done as a requirement to review and update Waste Reduction and Recycling Plan 2016 – 2026 every three years, as well as to align waste operations with Queensland's new Waste Management and Resource Recovery Strategy.

Major strategic initiatives include:

1. Data capture;
2. Infrastructure rationalisation and improvement, including landfills and transfer stations;
3. Maximisation of waste and recycling collection services;
4. Long term waste disposal options; and
5. Increased waste reduction and recycling initiatives.

The Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024 sets out targets which aim to reduce waste going to landfill.

The strategy targets also consider the different circumstances and opportunities relative to both the metropolitan and non-metropolitan parts of the state. The Central Highlands Regional Council is classified within a remote area of Queensland.

Key actions within the WRRP include:

- Review of existing landfill and transfer station infrastructure that complies with waste levy requirements including locations and suitability for the community;
- Investigate the establishment of one landfill for the region;
- Investigate the management of regulated waste, such as tyres; and
- A feasibility assessment for the diversion of waste materials from landfill, including organics.

# 1. Introduction

The Central Highlands Regional Council (CHRC) is located in the heart of Central Queensland and is valued for its strong communities, diverse economy, pristine landscapes, expanding infrastructure and for having an attractive climate. The region spans an area of almost 60,000 square kilometres and is located near the Tropic of Capricorn.

Following the principles set out in Queensland's Waste Management and Resource Recovery Strategy, the Central Highlands Regional Councils Amendment on Waste Reduction and Recycling Plan 2016-2026 (WRRP) has been developed to provide guidance and direction for the reduction of waste to landfill for the next ten years.

The WRRP will shape the region's future waste management services and infrastructure with a strong focus on resource recovery, recycling and reuse.

Key objectives for the plan include:

- Data capture;
- Infrastructure rationalisation and improvement, including landfill, transfer stations;
- Maximisation of waste and recycling collection services;
- Long term waste disposal options; and
- Increased waste reduction and recycling initiatives. Opportunities in the diversion of waste from landfill include:
  - Organics;
  - Increased reuse options (green waste, concrete, steel, tyre and other inert materials); and
  - Regional partnerships.

## 1.1 Development of Plan

Council is a member of the Central Queensland Region of Council's (CQROC).

Supporting documents which have been used to inform this Plan include:

- Former Central Queensland Local Government Association (CQLGA) Regional Waste Audit Report, December 2013;
- 10-year capital financial plan; and
- Central Highlands Waste Reduction and Recycling Plan (Waste Facility Rationalisation in Central Highlands), February 2014.

## 2. Where are we today?

The Central Highlands region stretches from the Arcadia Valley in the south to the Peak Downs Ranges in the north, east from Boolburra to Boguntungan in the west.

Covering 60,000 square kilometres in the Bowen Basin, the area is the largest coal reserve in Australia with over 100 million tonnes of coal extracted annually. The Central Highlands economy is also complemented by agriculture and horticulture industries, including beef, grain, cotton and citrus which are logistically connected to a number of major freight routes.

The region also hosts the largest sapphire producing fields in the Southern Hemisphere.

**Figure 1 Map of Regional Council Area**



### 2.1 Population Profile

#### Population

In 2018, approximately 28 645 people called the Central Highlands region home. However, this is expected to grow to over 30 133 by 2041.

**Source: Queensland Government Statisticians Office and Australian Bureau of Statistics, Census of Population and Housing 2016.**

## **2.2 Industrial and commercial profile**

It is estimated that there are 17,019 jobs in the Central Highlands region. Approximately 11,461 residents are employed. Of these 43.8% are employed full-time and 16.01% are employed part-time.

Over 5,558 people are estimated to be non-permanent residents of the Central Highlands, in that they do not live here but they work here.

Mining is the largest employer in Central Highlands, making up 35.7% of total employment.

The region's economic base and employment opportunities also encompass agriculture, health, training, construction and ancillary services.

There is a large professional base including engineers, managers, accountants, solicitors, allied health and medical staff.

### **Economy**

The Gross Regional Product of the Central Highlands region is estimated at \$3.93 billion, making up 1.4% of the state's GRP.

There are 2,899 businesses registered in the region.

## **2.3 Waste collection, recovery and disposal systems**

Central Highlands Regional Council (CHRC) manages 18 resource recovery facilities. This includes landfills, transfer stations and bulk bin facilities.

The landfills at Emerald and Blackwater each have a weighbridge and charge based on weight. The other facilities use deemed weights to calculate tonnage, based on volumes and a weight conversion factor.

Public place waste and recycling services are provided along with waste services special community events.

CHRC is responsible for the provision of waste and recycling services to household and commercial premises. This service is provided through a contract to a private operator for a 7-year (+1+1+1) term which commenced in October 2019.

**Table 1 Household waste collection services – Kerbside**

<b>Service</b>	<b>Household Service</b>	<b>Container (types and sizes)</b>	<b>Frequency</b>	<b>Operator</b>	<b>Facilities (including bulking and final destinations)</b>
Residual	9,767	240 litres	Weekly	Contractor	Emerald, Blackwater and Tieri Landfills
Comingled	9,767	240 litres	Contractor	Contractor	Bulked and transported to Rockhampton

### 2.3.1 Industrial and commercial waste systems

**Table 2 Commercial waste collection services – Kerbside**

<b>Service</b>	<b>Households served</b>	<b>Container (types &amp; sizes)</b>	<b>Frequency</b>	<b>Operator</b>	<b>Facilities (including bulking and final destinations)</b>
Residual	627	240 litres	Weekly	Contractor	Emerald, Blackwater & Tieri landfills
Comingled	364	240 litres	Fortnightly	Contractor	Bulked and transported to Rockhampton

### 2.3.2 Waste Infrastructure

Due to the size and spread of the township areas, CHRC provides a network of 18 resource recovery facilities. Their approximate locations and landfill size across Queensland and municipal area is illustrated in Figure 2.

Council is progressing through an infrastructure rationalisation to ensure environmental and license compliance in accordance with the Department of Environment and Science requirements. A key goal is to increase opportunities for recycling. This will assist Council reduce the amount of waste sent to landfill.

**Figure 2** Map of Waste Infrastructure



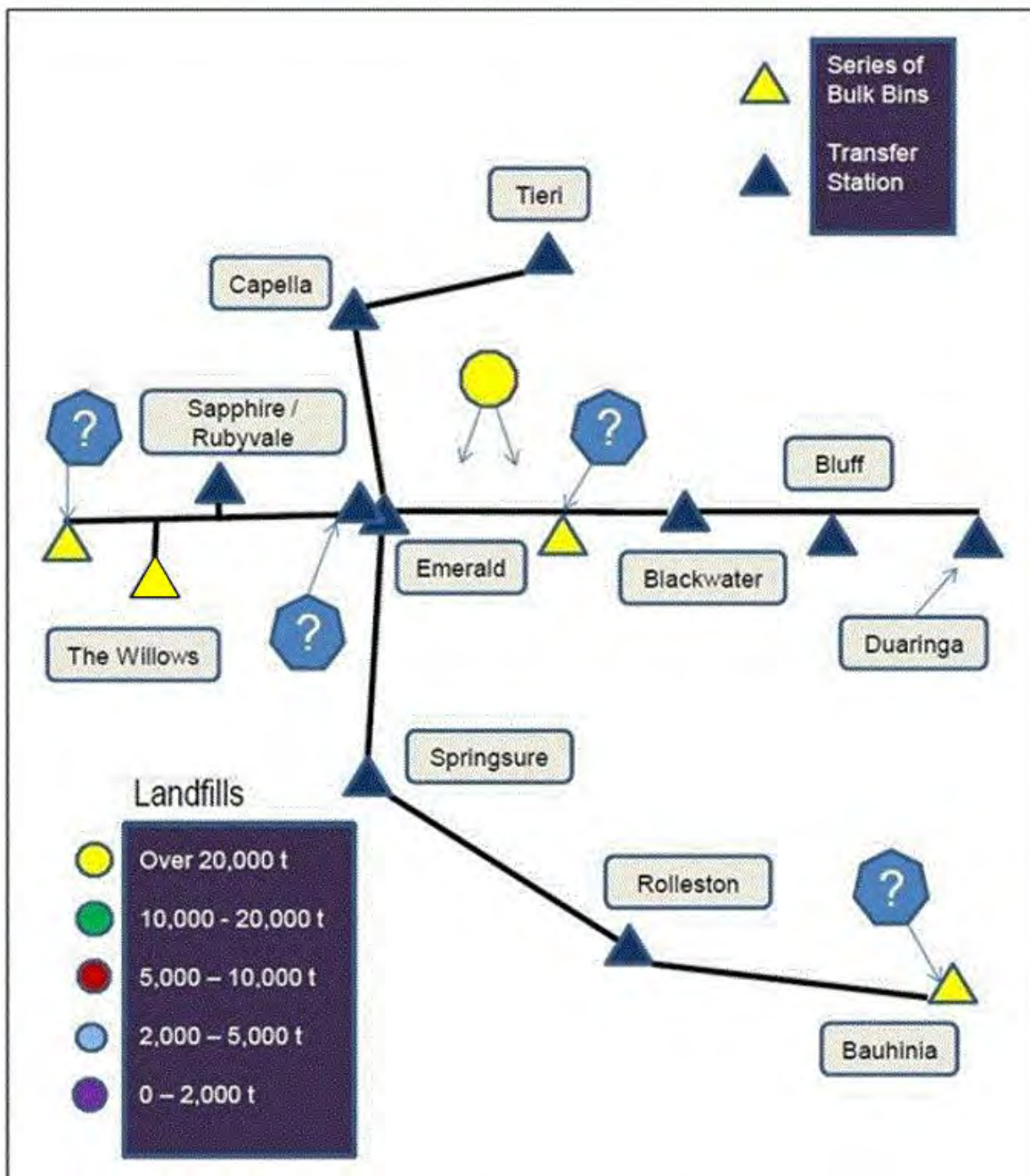
Current bulk bin, landfill and transfer station are listed in Table 3, with a regional plan provided in Figure 3.

**Table 3 Waste management facilities in local government area - Current**

Resource recovery facility type	Name	Existing capacity (tonnes/ annum)	Proposed new Capacity (tonnes/ annum)
<b>Resource Recovery Centre (Bulk bin stations)</b>	Gindie		
	Fernless		
	Anakie		
	Comet		
	Bauhinia		
	Bogantungan		
	The Willows		
	Gindie		
<b>Resource Recovery Centres (Transfer station)</b>	Emerald		
<b>Resource Recovery Centres (Landfill and transfer station)</b>	Tieri	2,000 to 5,000	
	Capella	0 to 2,000	
	Bluff	0 to 2,000	
	Dingo	0 to 2,000	
	Dauringa	0 to 2,000	
	Springsure	2,000 to 5,000	
	Rolleston	2,000 to 5,000	
	Sapphire / Rubyvale	2,000 to 5,000	
<b>Resource Recovery centres (Landfills)</b>	Emerald	10,000 to 20,000	
	Blackwater	2,000 to 5,000	10,000 to 20,000
<b>Material recovery facility</b>	Orora	Up to 11,000	



Figure 3 Infrastructure plan – Current



Changes to existing facilities during the transition period of the WRRP are listed in Table 4, The transition period incorporates the transitioning of some regional landfills to transfer stations, with landfilling concentrated at four locations.

**Table 4 Waste management facilities in local government area – Transition**

Facility type	Name	Type of material sent	Landfill capacity (tonnes/ annum)	Proposed Landfill Capacity (tonnes/ annum)	Landfill Rehabilitation Plans
<b>Resource Recovery Centre (Bulk bin stations)</b>	Gindie				
	Fernless	MSW			
	Anakie	MSW			
	Comet	MSW			
	Bauhinia	MSW			
	Bogantungan	MSW	Currently licensed as a landfill 50 to 2,000		Rehabilitation planned 2022
<b>Resource Recovery Centres (Transfer station)</b>	Emerald	MSW			
	Willows	MSW	Currently licensed as a landfill 50 to 2,000	Resource Recovery Centre	Rehabilitation planned 2021
	Rolleston	MSW	Currently licensed as a landfill 2,000 to 5,000	Resource Recovery Centre	Rehabilitation planned 2021
	Capella	MSW	Currently licensed as a landfill 50 to 2,000	Resource Recovery Centre	Rehabilitation planned 2020
	Bluff	MSW	Currently licensed as a landfill 50 to 2,000	Resource Recovery Centre	Rehabilitation planned 2023
	Dingo	MSW	Currently licensed as a landfill 50 to 2,000	Resource Recovery Centre	Rehabilitation completed 2019
	Dauringa	MSW	Currently licensed as a landfill 50 to 2,000	Resource Recovery Centre	Rehabilitation planned 2020
<b>Resource Recovery Centres (Landfill and transfer station)</b>	Springsure	MSW	2,000 to 5,000	Resource Recovery Centre only	Rehabilitation planned 2023
	Sapphire / Rubyvale	MSW	50 to 2,000	Resource Recovery Centre	Rehabilitation planned 2020
<b>Resource Recovery centres (Landfills)</b>	Lochlees	MSW & Commercial	Over 20,000	No change	
	Tieri	MSW & Commercial	2,000 to 5,000	No change	
	Blackwater	MSW & Commercial	2,000 to 5,000	10 000 to 20 000	
<b>Material recovery facility</b>	Orora	Comingled recyclables	Unknown		

NB: It is a license condition to have in place rehabilitation plans. Rehabilitation & closure procedures are required to be implemented following official closure of a landfill.

Some landfill licenses will be maintained until the establishment of the new regional resource recovery centre.

Table 5 provides an indication of changes during the long-term plan with one regional landfill is established. The schematic in Figure 4 illustrates the long-term waste management strategy.

**Table 5 Waste management facilities in local government area – Long term**

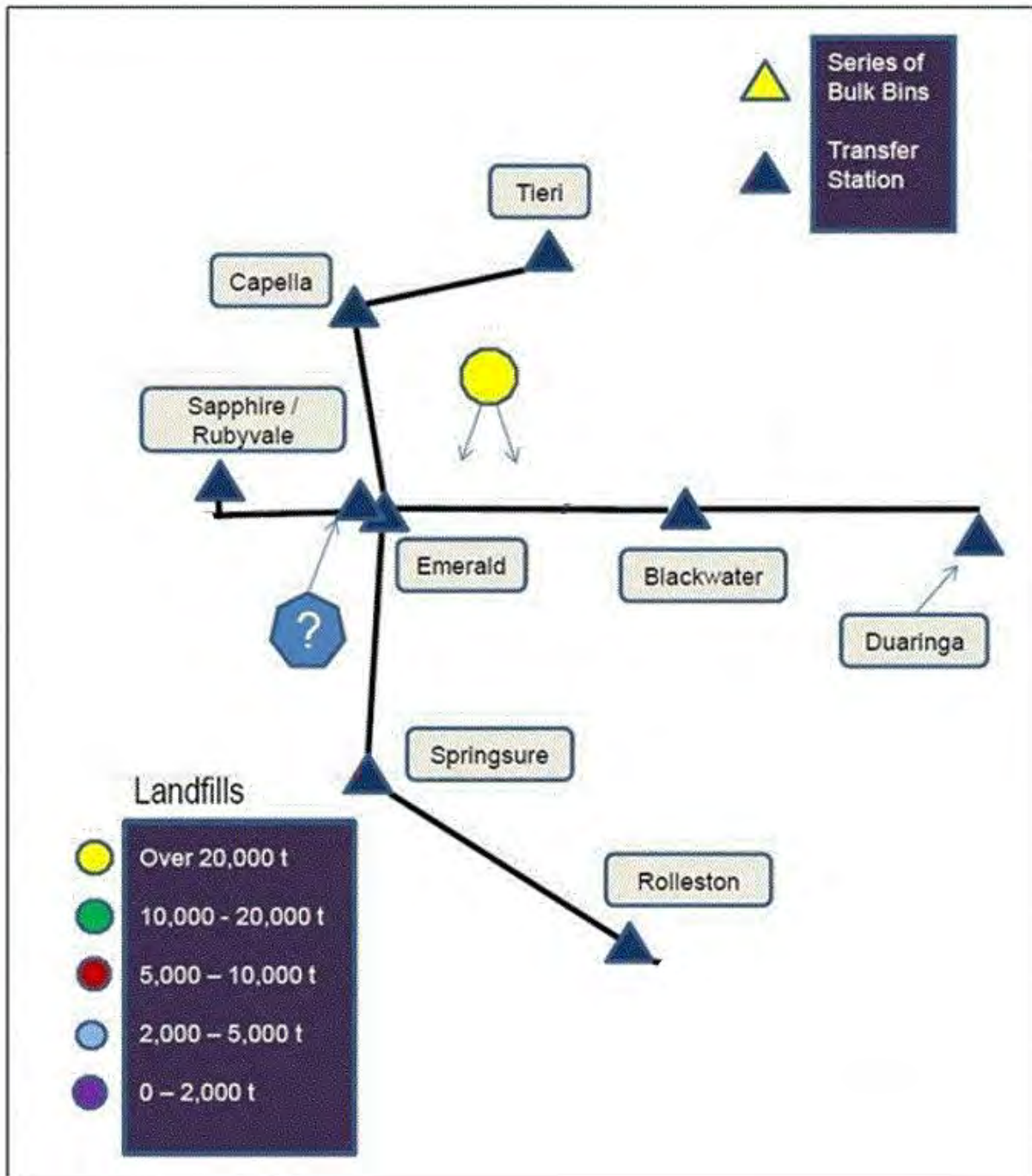
Facility type	Name	Type of material sent	Operational Change
<b>Resource Recovery Centre (Bulk bin stations)</b>	Comet	MSW	Key access to residents by 31 Dec 2019 and will be closed by 30 June 2020
	Fernlees	MSW	Closed by 30 June 2020
	Anakie	MSW	Closed by 2022
	Gindie	MSW	Closed by 2022
	Bogantungan	MSW	Closed by 2026
	Bauhinia	MSW	Closed by 2026
	Willows	MSW	Closed by 2026
<b>Resource Recovery Centres (Transfer station)</b>	Bluff	MSW	Closed by 2022
	Dingo	MSW	Closed by 30 June 2020
	Capella	MSW	Transfer Station only
	Duaringa	MSW	Transfer Station only
	Emerald	MSW	Transfer Station only
	Rolleston	MSW	Transfer Station only
	Sapphire/ Rubyvale	MSW	Transfer Station only
Springsure	MSW	Transfer Station only	
<b>Resource Recovery centres (Transition Landfills)</b>	Blackwater	MSW/ Commercial	Transition landfill until regional site developed
	Lochlees	MSW /Commercial	Transition landfill until regional site developed
	Tieri	MSW/ Commercial	Transition landfill until regional site developed
<b>Resource Recovery centres (Landfills)</b>	Regional Landfill (New site) **	MSW/ Commercial	Expected
<b>Material recovery facility</b>	Orora	Comingled recyclables	Continuing

**\*\* Council to investigate a new Resource Recovery Centre on the eastern side of Emerald.**

To have a better control and increased capacity to monitor illegal dumping, gate key access will be provided to residents for unmanned resource recovery centres i.e. bulk bin stations. To compliment this, operating hours at all resource recovery centres (transfer stations and landfill

facilities) have been introduced. Thorough community engagement has been undertaken since April 2019 to inform residents of these changes accordance with the introduction of the Queensland Waste Levy on 1 July 2019.

**Figure 4 Infrastructure plan – Long term**



### 2.3.3 Additional Infrastructures in Existing Resource Recovery Centre Facilities for Waste Levy

The introduction of a waste levy on 1 July 2019 has resulted in the introduction of a number of infrastructure changes across Council's facilities to ensure accurate waste data capture and reporting, and better control over the type of waste being collected, can be achieved.

#### Weighbridge

All resource recovery centre facilities (involved in waste landfilling) require the installation of a weighbridge within five years. The installation of weighbridges at small facilities can be extended to ten years provided that an exemption application is made for those facilities and approval is granted by the Department of Environment and Science. In the absence of a weighbridge, waste needs to be measured using a deemed weight from volume. Table 6 shows existing weighbridges, with the intention to apply for an exemption to the requirement for a weighbridge at Tieri.

**Table 6 Installation Plan of Weighbridge at Landfill Facilities**

Facility Name	Weighbridge Requirement	Installed Year
Lochlees	Yes	Existing
Blackwater	Yes	Existing
Tieri	Yes	2029*

\*pending exemption from the State Government. Landfill areas with tonnages at 5,000 tonnes or less are eligible for an exemption from the requirement to install a weighbridge.

#### Surveillance Cameras

Surveillance cameras are to be set up at most facilities as part of the strategy to build a robust monitoring system. Monitoring will assist the management of illegal dumping and littering problems. Council has committed to the installation of a CCTV system at these facilities with all necessary connectivity requirements by November 2019.

#### Fencing

All facilities are now fenced with security gates to ensure greater security. The intention is to have greater control over waste disposal operations through the physical presence onsite.

#### Signage

Adequate signage is displayed at all facilities to inform the community of disposal requirements relating to acceptance of waste conditions, disposal location of various waste types and applicable gate fees including levy charges.

#### Other Infrastructure

Other necessary infrastructure such as portable staff facilities and waste oil sheds have been installed at the staffed resource recovery areas.

## Software Integration

Council's waste data collection software has been installed at the Lochlees and Blackwater facilities. This software will be installed at Tieri landfill in the 2019/2020 financial year. It is not required at other resource recovery facilities.

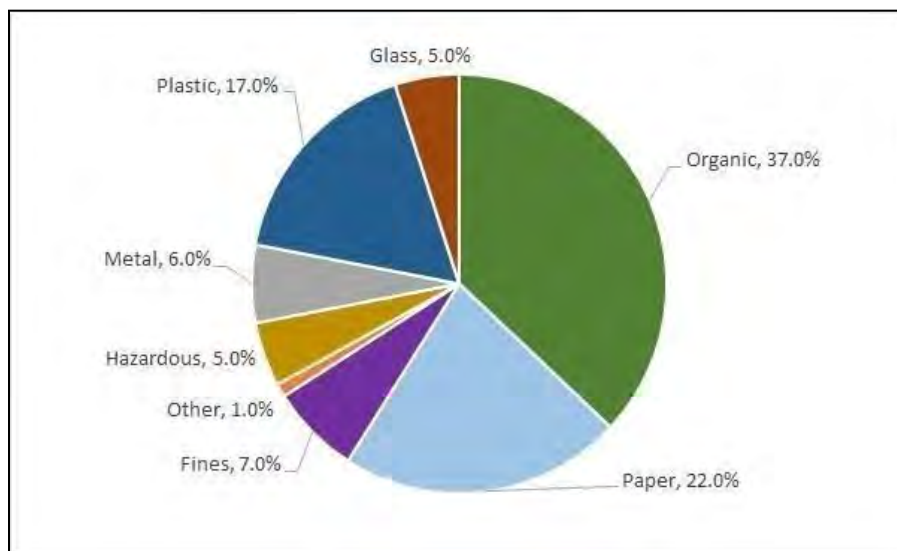
## 2.4 Waste Composition

In October 2013, the Central Queensland Local Government Association completed a regional waste audit for kerbside residual and kerbside recyclables. In addition to the physical waste audits, a visual waste assessment was undertaken on commercial and industrial (C&I) and construction and demolition (C&D) waste entering the Lochlees Road landfill.

The new kerbside contract provides for an annual bin audit to help us manage the various sources of our waste and provide targeted education programs.

A summary of the waste stream composition is provided in Figures 5, 6 and 7.

**Figure 5 Composition of Household Residual (MSW)**



The findings from the household residual bin audit indicate that organics are a large portion of disposal contents, at 37%.

The portion of recyclables entering residual bins indicate that the community could benefit from further awareness campaigns on what could and should be placed in the recycling bin.

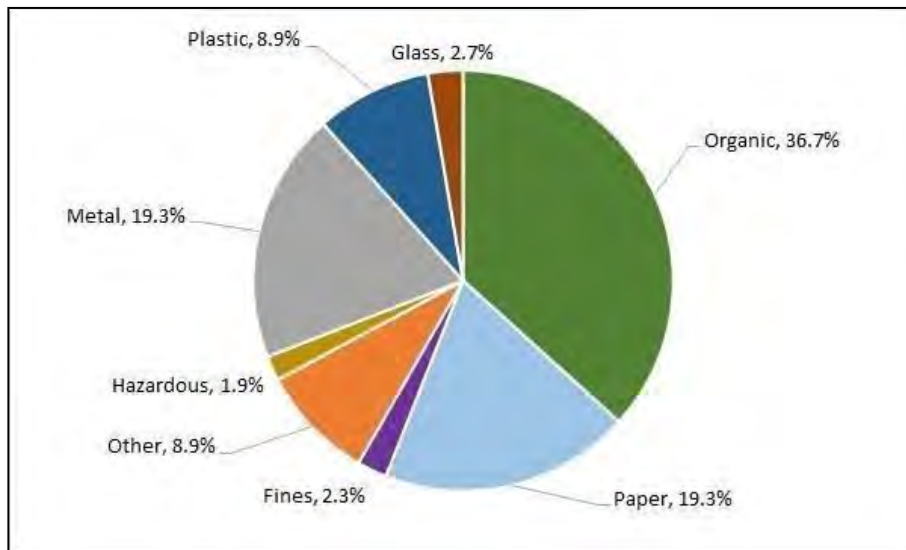
In addition to the kerbside residual physical waste audit, a contamination audit was also conducted to identify the percentage of contamination and also the major contaminants being placed into the kerbside recycling bin. The recyclable processor has an acceptance level of 12%.

The Central Highlands Regional Council presented a contamination percentage of 19.4%. Major items identified causing contamination included:

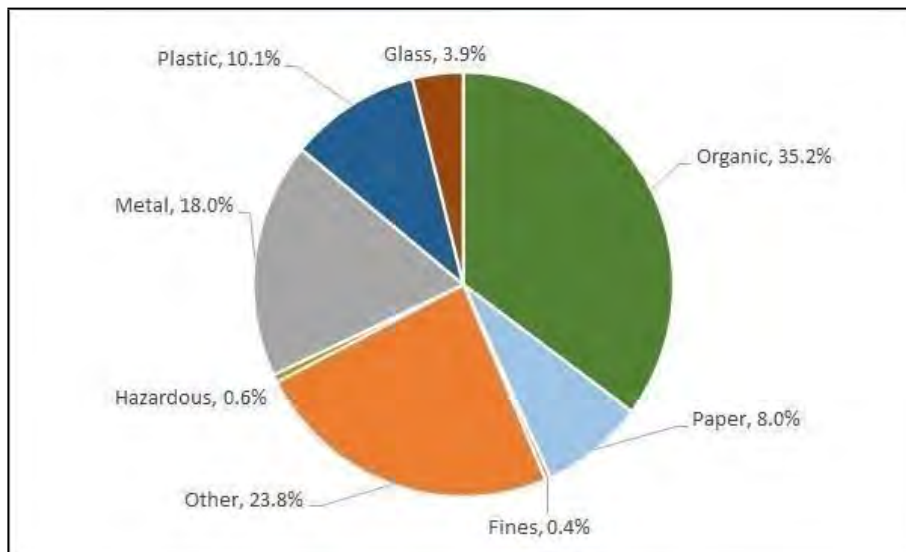
- Food and kitchen materials;
- Plastic film and bags; and
- Inert materials such as bricks and rocks.

Results from the C&I and C&D visual assessments have indicated that a large portion of recoverables/ recyclables are entering landfill, such as organics, paper, metals and plastics.

**Figure 6 Composition of C&I**



**Figure 7 Composition of C&D**



### 3. Key drivers and policy context

#### 3.1 National drivers and policies

There are a number of Commonwealth statutory environmental requirements, policies and guidelines that have to be taken into consideration in order to develop appropriate waste management initiatives for this plan and to identify incentives for the reduction and recycling of waste materials.

##### **Commonwealth legislation and policy:**

- *National Greenhouse and Energy Reporting Act (NGER Act) 2007;*
- *Clean Energy (Consequential Amendments) Act 2011;*
- *Clean Energy Legislation Amendment Act 2012;* and
- *Product Stewardship Act 2011.*

##### **The National Waste Policy 2009: *Less Waste, More Resources***

The National Waste Policy 2009 sets the national framework for Australia's waste management and resource recovery direction from 2010 to 2020.

The aims of the National Waste Policy 2009 are to:

- Avoid the generation of waste, reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource;
- Ensure that waste treatment, disposal, recovery and re-use is undertaken in a safe, scientific and environmentally sound manner, and
- Contribute to the reduction in greenhouse gas emissions, energy conservation and production, water efficiency and the productivity of the land.

The policy sets directions in six key areas and identifies 16 priority strategies that would benefit from a national or coordinated approach.

The six key areas are:

- 1. Taking responsibility** for reducing the impacts of products and materials from production to the end-of- life;
- 2. Improving the market** to deliver efficient and effective markets for waste recovered resources, using local technology and innovation;
- 3. Pursuing sustainability** and achieving environmental, social and economic benefits from producing less waste and using waste better;
- 4. Reducing hazard and risk** by reducing the hazardous content of waste and using consistent and safe waste management methods;



**5. Tailoring solutions** to increase regional capacity and allow communities to manage waste and recover and re-use resources;

**6. Providing evidence** giving decision makers access to meaningful, accurate waste and resource recovery data that allows progress to be measured and to inform community choices and behaviours.

### **3.2 State drivers and policies**

The Queensland State Government has developed key legislation and policies that form the basis for waste reduction and recycling principles within the state.

#### **Queensland legislation and policy:**

- *Environmental Protection Act 1994;*
- *Environmental Protection Regulation 2008;*
- *Planning Act 2016;*
- *Local Government Act 2009;*
- *Waste Reduction and Recycling Act 2011;*
- *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012;*
- *Environment protection (Waste ERA Framework) Amendment Regulation 2018;*
- *Waste Reduction and Recycling (Waste Levy) Amendment Act 2019;* and
- *Waste Management and Resource Recovery Strategy.*

#### **Waste Reduction and Recycling Act 2011**

Contains a suite of measures to reduce waste generation and landfill disposal and to encourage recycling.

The legislation promotes waste avoidance and reduction and encourages resource recovery and efficiency. The key provisions of the *Waste Reduction and Recycling Act 2011* include:

- A requirement for Queensland Government agencies and local governments to prepare waste management plans;
- Introduction of product stewardship arrangements for any waste products that are identified as a growing problem for landfill in the future; and
- Strengthened littering and illegal dumping offences, including public reporting of vehicle related littering offences.

#### **Waste Reduction and Recycling Regulation 2011 (WRRR2011)**

The Waste Reduction and Recycling Regulation 2011 sits under the *Waste Reduction and Recycling Act 2011* and provides details about the legislative framework. The key provisions of the Regulation include:

- Fees for applications under the *Waste Reduction and Recycling Act 2011;*
- Management of unused packaging materials; and
- Details about who is required to plan and report about waste management.

## Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024

This strategy provides a high-level vision and direction for Queensland over the next ten years.

The strategy sets out four main objectives, based around the waste and resource management hierarchy.

1. Driving cultural change;
2. Avoidance and minimisation;
3. Reuse, recovery and recycling; and
4. Management, treatment and disposal.

From these objectives, the key features of the strategy include:

- Targets for reducing waste generation and improving recycling rates;
- Recognition of the challenges and opportunities for regional areas of the state;
- Identification of Queensland's priority wastes and areas for action; and
- Implementation through action plans developed at government and sectoral levels to achieve the objectives and priorities of the strategy.

### **Waste Reduction and Recycling (Waste Levy) Amendment Act 2019**

It provides details on the requirements to implement the waste levy on landfill facilities. It specifies that the levy will be imposed on waste delivered to leviable waste disposal facilities, and outlines exemption procedure on waste and declaration of resource recovery area (RRA) aspects.

Moreover, waste needs to be measured either by weighbridge for waste facilities with capacity greater than 5,000 tonnes/year or be deemed for smaller facilities. Volumetric surveys must be completed each year in June to measure the volumes of waste in each active landfill cell, including volume estimations of stockpiled waste and recoverable resources in RRA's. This data is to be evaluated to identify the existing landfill capacity and future capacity needs.

### **Waste Management and Resource Recovery Strategy**

It provides a strategic plan for managing waste in Queensland and features the aim to achieve 4 R's i.e. reduce waste, reuse waste, recycle waste and recover resources from waste. It has set out three strategic priorities which are:

- Reduce impact of waste on the environment and communities;
- Transitioning towards a circular economy for waste; and
- Building economic opportunity.

Targets for waste reduction, amounts of waste disposal to landfill, and recycling rates for 2050 are shown in Tables 7, 8 and 9.

**Table 7 Waste Reduction Targets for Households**

Waste Stream	2025	2030	2040	2050
MSW	10%	15%	20%	25%

**Table 8 Amount of Waste Disposal to Landfill**

Waste Stream	2025	2030	2040	2050
MSW	45%	30%	10%	5%
C & I	30%	20%	10%	5%
C & D	25%	15%	15%	15%
Overall	35%	20%	15%	10%

**Table 9 Recycling Rates as a percentage of total waste generated**

Waste Stream	2025	2030	2040	2050
MSW	50%	60%	65%	70%
C & I	55%	60%	65%	65%
C & D	75%	80%	85%	85%
Overall	60%	65%	70%	75%

### 3.3 Local drivers and policies

The key requirement of the *Queensland Waste Reduction and Recycling Act 2011* (W RRA 2011) is an obligation for each local government area to prepare a Waste Reduction and Recycling plan (WRRP). A WRRP must set out actions for managing waste in a way that best achieves the objectives of the Act.

This document is the Council Amendment on the WRRP.

### 3.4 Summary

The Queensland Waste Management and Resource Recovery Strategy sets out targets which aim to reduce waste to landfill. These targets for various waste streams are provided in Table 9.

The strategies have been developed to suit different circumstances and opportunities as characterised by the varied features inherent to metropolitan and non- metropolitan community environments.

The Central Highlands Regional Council is classified within a remote area of Queensland.

The waste and resource management hierarchy outlines the order of preference for managing waste to inform decision makers. The hierarchy (Figure 8) shapes the vision, principles, objectives and priorities in the strategy, and provides a basis for development of action plans.

**Table 10 Queensland Waste Management and Resource Recovery Strategy Targets**

Waste Stream	Measure	2050 Target
Municipal Solid Waste (MSW)	Improved recycling rate	25% reduction in household waste
Commercial and Industrial Waste (C&I)	Improved recycling rate	95% (state-wide)
Construction and Demolition Waste (C&D)	Improved recycling rate	85% (state-wide)
Landfill Diversion Target	Reduce amount of waste going to landfill	90% diversion from landfill

Figure 8

The Waste and Resource Management Hierarchy



#### 4. Stakeholder Consultation

Consultation of the Waste Reduction and Recycling Plan 2015-2025 to the broader community is essential in the success of waste reduction and diversion from landfill.

Key stakeholders include:

- Council staff;
- Councillors;
- Community;
- Industry;
- Regional / neighbouring Councils; and
- State government (DES).

The initial development of this plan went through a substantive public consultation exercise. This consultation was undertaken during October 2015 through to February 2016 and involved two rounds of notification on Council's website. The Plan was posted for review and comment for ten days in late 2015 and then an additional 30 days in January to February 2016 to ensure compliance with the Act.

A brochure was also produced which was provided to the community. In addition to this public notification process, meetings were held with industry and commercial waste generators in late 2015 to outline the Plan and associated actions. To facilitate awareness of the Plan, an agenda item was issued to the thirteen community reference groups across the Central Highlands, where the Waste Reduction and Recycling Plan was highlighted. Township communities have informed that further information was available on Council's website and that Council was seeking feedback and comments on the proposals.

## 5. Action Plan

The Central Highlands Regional Council, through the Waste Reduction and Recycling Plan 2016-2026, will put into effect an action plan which will provide direction to achieving the outcomes against the Queensland Waste Management and Resource Recovery Strategy.

The key objectives of the plan include:

- Data capture;
- Infrastructure rationalisation and improvement, including resource recovery centres (landfills & transfer stations);
- Maximisation of waste and recycling collection services;
- Long term waste disposal options; and
- Increased waste reduction and recycling initiatives.

The timeframes and budgets needed to support the achieved outcomes are summarised in Tables 11 and 12. The timeframe for each action has been determined based on:

- Waste diversion potential;
- Urgency; and
- Ease of implementation.

**Table 11 Timeframe Definitions**

Timeframe (years)	
Short term	1 – 3
Medium term	4 – 7
Long term	8+
Ongoing	1+

**Table 12 Budget Definitions**

Cost (\$)	
Low	\$0-100k
Medium	\$101k to \$500k
High	\$501k and greater
Unknown	\$100k+

Delivering on these objectives requires a range of actions, based upon the broad categories of:

- Infrastructure;
- Service Level;
- Education; and
- Policy.

Individual actions plans for each of the above elements are provided in Tables 13 to 16.

**Table 13 Action Plan – Infrastructure**

Objective		Action	Timeframe	Cost	Performance indicators / targets
2.1	Resource recovery centres. (Landfills, transfer stations and bulk bin areas stations)	Secure facilities and implement opening times to ensure operational and environmental compliance.	Short	Medium	Facilities fully fenced and only accessible during opening hours.
		Review and evaluate effective means of monitoring waste disposal.	Medium	High	
2.2	Kerbside waste and recycling	Investigate the expansion of residential kerbside services throughout the region.	Short	Medium	Additional residential services implemented.
		Investigate the expansion of commercial waste and recycling services throughout	Short	Medium	Additional commercial services implemented.
2.3	Organics	Investigation of joint initiatives to divert organics from Landfill.	Medium	Low	Feasibility assessment
		Investigate opportunities for self-haul green waste to be processed at other facilities and continue at current facilities.	Ongoing	Low	Increased volumes of green waste processed.
2.4	Private sector	Continual encouragement for private operators to service the commercial and industrial sector in general waste, hazardous waste and recycling services.	Ongoing	Low	Support competitive private sector involvement in waste management.
2.5	Concrete	Investigate opportunities to increase the volumes of concrete separated, processed	Ongoing	Low	Increased volumes of concrete processed.
2.6	Asbestos	Continue to provide a safe and secure area for asbestos disposal.	Ongoing	Low	Compliant disposal of asbestos
2.7	Scrap tyres	Investigate and research opportunities for scrap tyre treatment and or disposal.	Short	Low	Sustainable and economical system for the treatment and or disposal of scrap tyre.
2.8	Tip Shop	Continue and promote the operation of a tip shop at the	Ongoing	Low	Tip shop operation
2.9	Public place	Review the current public place bin locations, bin types and servicing level	Short	Low	Continuation of public place service to the community.

**Table 14 Action Plan – Service Level**

Objective		Action	Timeframe	Cost	Performance indicators / targets
1.1	Infrastructure rationalisation and improvement	Upgrade 3 resource recovery centres (landfills) to meet DES compliance requirements as well as waste levy requirements	Short	High	Establishment of three major resource recovery centres (landfill) All require additional infrastructure to increase operational capacity
		Investigate and establishment of a regional network of resource recovery centres (transfer stations / bulk bin areas)	Ongoing	High	Network of resource recovery centres established.
		Investigate and establish a new resource recovery centre on the eastern side of Emerald.	Medium	High	New resource recovery centre established.
		Review current resource recovery facility infrastructure and implement upgrades where required.	Short	Medium	Upgrade of resource recovery centre.
1.2	Waste data	Install weighbridges at the resource recovery centres (landfills) that are licensed to accept over 10,000 tonnes per annum (Blackwater).	Short	Medium	Weighbridge installed and operating.
		Install weighbridges at the resource recovery centres (landfills) that are licensed to accept over 5,000 tonnes per annum (Tier1).	Long	High	Weighbridge installed and operating, if exemption not granted.
1.3	Long term waste disposal option	Investigate the establishment of one resource recovery centre (landfill) for the region.	Ongoing	High	Environmental management of legacy landfills to the satisfaction of the Regulator.
1.4	Asset management	Ongoing site management, closure and rehabilitation of old landfill facilities.	Ongoing	High	Environmental management of legacy landfills to the satisfaction of the Regulator.
1.5	Emissions Control	Evaluate benefits from capture or reuse of landfill gas	Medium	Low	Report with recommendations for future implementation at new landfill.



**Table 15 Action Plan – Education**

Objective		Action	Timeframe	Cost	Performance indicators
3.1	Awareness	<p>Upgrade CHRC webpage with updated waste information including:</p> <ul style="list-style-type: none"> <li>- educational information;</li> <li>- awareness of resource recovery opportunities available at all facilities;</li> <li>- promote school kids for increased habit of separating, reducing and recycling waste from source;</li> <li>- collaborate with media to disseminate awareness songs, talk shows and others;</li> <li>- engage in community events and deliver education programs for 4R's, illegal dumping and littering; and</li> <li>- disseminate information regarding new operating hours and restricted access to facilities through pamphlets</li> </ul>	Short	Low	Webpage upgraded.
3.2	Kerbside recycling	Educational material on the types of materials which can be included in the bin and information on contamination	Short	Low	Materials developed, and program implemented for
		Investigate opportunities to reduce the percentage of contamination in the kerbside recycling stream. Through bin assessments and awareness campaigns.	Short	Low	Reduction the percentage of contamination presented in bins.
3.3	Council staff	Provide resource recovery education to all staff to diversion opportunities.	Short	Low	Training implemented

**Table 16 Action Plan – Policy**

Objective		Action	Timeframe	Cost	Performance indicators
4.1	Waste data	Implement waste data capture system for the 3 landfills; - Emerald; - Blackwater; and - Tieri	Short	Low	Waste data capture system
		Implement a waste audit and assessment plan to investigate opportunities for increased recycling and to identify if waste reduction programs are effective.	Ongoing	Low	Annual waste audit for kerbside waste and recycling.
4.2	Kerbside collection	Manage Councils existing contracts and review future options.	Short	Low	Provide kerbside service to the community and commercial premises.
4.3	Environmental compliance	The three remaining resource recovery centres (landfills) are to be operated and managed in an environmental compliant manner	Short	Medium	EA licence compliance
4.4	Waste collection and disposal fees, including rates charged to properties.	Review and establish a full costs model for all aspects of Councils waste management services (kerbside, transfer stations, bulk bin areas and landfills).	Short	Low	Sustainable pricing model implemented
		Establish higher disposal fees for the disposal of mixed waste where no separation of recyclables has occurred.	Short	Low	Increase in recyclables being separated at disposal facilities.
4.5	Recyclables	Research and develop market opportunities for recyclable materials including but not limited to: - Glass bottles; - Building materials; - Polystyrene; - Plastic film; - Inert materials; - Organics.	Ongoing	Low	Increase in local markets. Promote the use of the container deposit scheme.
4.6	Alternative waste technologie	Keep up to date of changing technologies	Ongoing	Low	Knowledge of potential opportunities
4.7	State and Regional initiatives	Keep up to date of opportunities to work with or seek funding for waste initiatives.	Ongoing	Low	Communication with relevant parties.

## 5.1 Review of Plan

The performance against the plan will be monitored and reviewed regularly. The results achieved against each of the actions set in this plan will be monitored on an annual basis. In addition, the plan will be reviewed every three years and actions updated.

## **Appendix 1 Glossary**

### **Alternative Waste Technology (AWT)**

*Waste processing infrastructure using mechanical, biological and/or thermal processes as an alternative to, or pre-treatment prior to landfill.*

### **Construction and Demolition Waste (C&D)**

*Unwanted materials produced directly or incidentally by building or demolition activities.*

### **Commercial and Industrial Waste (C&I)**

*Unwanted materials produced from commercial and or industrial premises from their activities.*

### **Legacy Landfills**

*Formers landfill facilities that are no longer accepting waste for disposal to land and are still part of Councils environmental monitoring responsibility.*

### **Materials Recovery Facility (MRF)**

*Facility for the sorting or mixing of recyclable materials predominantly from the yellow lidded kerbside bins.*

### **Household Waste (MSW)**

*Waste from households collected by Council at the kerbside in the red lidded bin*

## Appendix 2 Waste Reduction and Recycling Act 2011 – WRRP requirements

<b>Section</b>	<b>Requirement</b>	<b>Location in WRRP</b>
123(2)(a)	Waste reduction and recycling targets for: (i) waste generated by the local government in carrying out its activities; and (ii) waste generated by households in the local government's local government area; and (iii) other waste generated in the local government's local government area other than by the local government;	Section 2
123(2)(b)	Actions to be taken to improve waste reduction and recycling of: (i) waste generated by the local government in carrying out its activities; and (ii) waste generated by households in the local government's local government area; and (iii) other waste generated in the local government's local government area other than by the local government;	Section 6
123(2)(c)	Details of current and proposed waste infrastructure	Section 2, 6 and 7
123(2)(d)	The management and monitoring of the local government's performance under the plans;	Section 7 and Section 8
123(2)(e)	Information about achieving continuous improvement in waste management;	Section 7
123(2)(f)	Other matters prescribed under a regulation about the requirements for a local government's waste reduction and recycling plans.	
124(1)	A local government, in preparing or adopting a waste reduction and recycling plan for its local government area, must have	
124(1)(a)	Current and predicted information about the following matters relating to its area— (i) population profiles; (ii) residential, industrial and commercial development; (iii) amounts and types of waste generated;	Section 2
124(1)(b)	The services, markets and facilities relevant to dealing with different types and amounts of waste	All sections
124(1)(c)	The waste and resource management hierarchy	All sections
124(1)(d)	The waste and resource management principles	All sections
124(1)(e)	How the goals and targets of the State's waste management strategy will be achieved	Sections 3,5,6 and 7

## **Annexure E**























































































































































## **Annexure F**











23 Marcus Clarke Street  
Canberra ACT 2601

GPO Box 3131  
Canberra ACT 2601  
tel: (02) 6243 1111

Contact officer: Tanya Hobbs  
Contact phone: [REDACTED]

4 November 2021

[www.accc.gov.au](http://www.accc.gov.au)

Ms Millicent Bradley-Woods  
Legal Advisor  
Gladstone Regional Council, on behalf of the Participating Councils (defined below)

By email: [REDACTED]

Dear Ms Bradley-Woods

**Re: Request for Fee Waiver – Gladstone Regional Council, Rockhampton Regional Council, Livingstone Shire Council, Central Highlands Regional Council and Banana Shire Council (the Participating Councils) - Application for Authorisation (non-merger)**

I refer to your email of 2 November 2021 requesting a full fee waiver for an application for authorisation (non-merger), which the Participating Councils intend to lodge with the ACCC.

I understand that the Participating Councils intend to apply for authorisation so that they can jointly tender and negotiate contractual arrangements for recyclables processing services for their local government areas.

In support of the request, the Participating Councils note:

- On 21 October 2021, the ACCC granted authorisation to enable four of the Participating Councils to jointly procure recyclables processing services from the Rockhampton Material Recovery Facility (**MRF**), resulting in a decrease in processing fees for each Council. As a result of a recent fire at the Rockhampton MRF, these four Councils are no longer realising this benefit and now need to find additional resources to manage recyclables processing.
- The Participating Councils are small local governments in regional Queensland, with a small ratepayer base and service significant landmasses that include several discrete communities; the full fee of \$7,500 is significant in this context.
- Payment of the fee is administratively burdensome and prohibitive in light of other important budgeted activities of the Participating Councils.
- Any fee will divert resources away from the Participating Councils core activities.
- The COVID-19 pandemic has had unanticipated budgetary implications for the Participating Councils.
- The fee is borne by the Participating Councils' ratepayers.

Having regard to the above, and in particular the Participating Councils' circumstances following the fire at the Rockhampton MRF, as a person authorised to assess fee waiver

requests for and on behalf of the ACCC, I wish to advise that the application fee to be paid by the Participating Councils has been waived in full.

This decision will remain in force for a period of three months. The three month period will expire on **4 February 2022**.

A copy of this letter should accompany the application for authorisation to be lodged by the Participating Councils. The cover letter to the application should mention that a letter from the ACCC regarding a fee waiver is enclosed with the application. The application together with this letter will be placed on the public register at that time.

If the application for authorisation is lodged by the Participating Councils after **4 February 2022**, a full application fee of \$7500 will apply, unless you make, and the ACCC approves, another fee waiver.

Should you have any queries in relation to this matter, please do not hesitate to contact Tanya Hobbs on [REDACTED].

Yours sincerely



Sharon Deano  
General Manager  
Competition Exemptions

## Declaration by Applicant(s)

Authorised persons of the applicant(s) must complete the following declaration. Where there are multiple applicants, a separate declaration should be completed by each applicant.

The undersigned declare that, to the best of their knowledge and belief, the information given in response to questions in this form is true, correct and complete, that complete copies of documents required by this form have been supplied, that all estimates are identified as such and are their best estimates of the underlying facts, and that all the opinions expressed are sincere.

The undersigned undertake(s) to advise the ACCC immediately of any material change in circumstances relating to the application.

The undersigned are aware that giving false or misleading information is a serious offence and are aware of the provisions of sections 137.1 and 149.1 of the *Criminal Code* (Cth).



Signature of authorised person

CHIEF EXECUTIVE OFFICER, GLADSTONE REGIONAL COUNCIL

Office held

LEISA ANNE DOWLING  
(Print) Name of authorised person

12<sup>th</sup> NOVEMBER 2021  
This [insert day] day of [insert month] [insert year]

*Note: If the Applicant is a corporation, state the position occupied in the corporation by the person signing. If signed by a solicitor on behalf of the Applicant, this fact must be stated.*



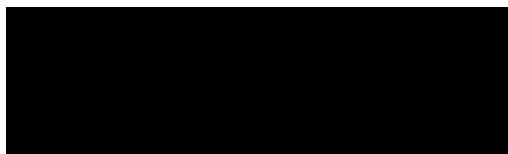
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---

Signature of authorised person

Chief Executive Officer, Rockhampton Regional Council

---

Office held

Evan Anthony PARDON  
(Print) Name of authorised person

This [insert day] day of [insert month] [insert year]      15 November 2021

*Note: If the Applicant is a corporation, state the position occupied in the corporation by the person signing. If signed by a solicitor on behalf of the Applicant, this fact must be stated.*

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A large black rectangular redaction box covering the signature area. A small, faint handwritten mark is visible above the top edge of the box.

Signature of authorised person

Office held

CEO, Livingstone Shire Council

Name of authorised person

Cale Dendle

This 12th day of November 2021

*Note: If the Applicant is a corporation, state the position occupied in the corporation by the person signing. If signed by a solicitor on behalf of the Applicant, this fact must be stated.*

## Declaration by Applicant(s)

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Signature of authorised person

Office held

ACTING CHIEF EXECUTIVE OFFICER  
CENTRAL HIGHLANDS REGIONAL  
MICHAEL PARKER COUNCIL

(Print) Name of authorised person

FIFTEENTH DAY OF NOVEMBER, 2021

This [insert day] day of [insert month] [insert year]

*Note: If the Applicant is a corporation, state the position occupied in the corporation by the person signing. If signed by a solicitor on behalf of the Applicant, this fact must be stated.*

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Signature of authorised person

Chief Executive Officer - Banana Shire Council

Tom Upton

This 16th day of November 2021

*Note: If the Applicant is a corporation, state the position occupied in the corporation by the person signing. If signed by a solicitor on behalf of the Applicant, this fact must be stated.*