GLADSTONE
REGIONAL COUNCIL

Gladstone Regional Council
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Please address all correspondence to The Chief Executive Officer

21 July 2020

Mr Gavin Jones
Merger & Authorisation Review Division
Australian Competition & Consumer Commission
GPO Box 1331
CANBERRA ACT 2601

By email only: gavin.jones@accc.gov.au; tessa.cramond@accc.gov.au; danielle.staltari@accc.gov.au

Dear Mr Jones,

APPLICATION FOR ACCC NON-MERGER AUTHORISATION UNDER THE COMPETITION AND CONSUMER ACT 2010 (CTH)

Gladstone Regional Council (GRC) is applying for authorisation from the Australian Competition and Consumer Commission (ACCC) on behalf of itself and the local governments of Rockhampton Regional Council, Livingstone Shire Council and Central Highlands Regional Council (the Participating Councils) in relation to the joint/collaborative procurement of recyclables processing services.

Please find **attached** the following documents:

- Application for authorisation in the required form, with redactions and supporting documentation;
- Correspondence from the ACCC dated 25 June 2020, granting GRC and the Participating Councils a partial fee waiver in this matter;
- EFT remittance advice for payment of the $2,500.00 application fee;
- Correspondence consenting to the Application for Authorisation signed by the authorised officers of GRC and the Participating Councils respectively; and
- Contact list for the purposes of the ACCC consultation.

Table 2 contains material that is confidential and commercially sensitive to GRC and the Participating Councils. Accordingly, GRC and the Participating Councils respectfully request that Table 2 be withheld from the ACCC's public register.

Should you have any queries in relation to this application, please do not hesitate to contact Millicent Bradley Woods on [redacted].

Yours faithfully,

[redacted]

LEISA DOWLING
CHIEF EXECUTIVE OFFICER

Att

Application for authorisation to collaboratively procure recyclables processing services

Gladstone Regional Council on behalf of itself and the local governments of Rockhampton Regional Council, Livingstone Shire Council and Central Highlands Regional Council

1. Applicants for authorisation

1.1 Contact details

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

Address: Gladstone Regional Council
101 Goondoon Street
GLADSTONE QLD 4680

Telephone: (07) 4970 0700

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:

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 certain waste management and resource recovery services within their respective local government areas.

1.4 Email address for service

1.5 Contact details for Participating Councils

Rockhampton Regional Council

Address: Rockhampton Regional Council
232 Bolsolver Street
ROCKHAMPTON QLD 4700

Telephone: (07) 4932 9000

Contact: Michael O'Keeffe
Manager RRWR – Regional Services

Email:

Livingstone Shire Council

Address: Livingstone Shire Council
25 Normanby Street
YEPPOON QLD 4703

Telephone: (07) 4913 5000

Contact: Leanne Randall
Principal Waste Officer

Email:

Central Highlands Regional Council

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

Telephone: (07) 4986 8493

Contact: Kirstin Byrne
Manager Planning and Environment

Email:

2. Details of the proposed conduct

2.1 Description

Overview

The Applicants propose to jointly procure recyclables processing services. In particular, the Applicants propose to collaboratively procure the services of Kriaris Transport Pty Ltd [ACN 093 090 987] and negotiate contractual terms in relation to the following recyclables processing services:

- The collection of all recyclable waste from each Applicants' nominated transfer location, which may include transfer stations and waste management facilities (excluding Rockhampton Regional Council and Livingstone Shire Council);
- The transport of the recyclable waste from the nominated transfer location to the Material Recovery Facility (excluding Rockhampton Regional Council and Livingstone Shire Council);
- 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**).

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

Each of the Applicants presently contract with Opal Packaging Australia Pty Ltd [ACN 636 682 883]. Opal Packaging Australia Pty Ltd have advised that they do not wish to extend each of the present contracts beyond the current period, which expires on 31 December 2020.

As each of the Applicants' contracts are coming to an end, the Applicants propose to shift to a collaborative procurement model in respect of the relevant services.

Recyclables Processing

The Applicants currently recover potentially recyclable material from the waste stream through kerbside recycling. Once collected by the Applicants, kerbside recyclable waste is transported to a Material Recovery Facility (**MRF**) for subsequent sorting, recovery and management. 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 within Queensland include the following facilities:

- Rockhampton MRF;
- Bundaberg MRF;
- Murgon MRF;
- Mackay MRF;
- Townsville MRF;
- Sunshine Coast MRF;
- Logan MRF; and
- Cairns MRF.

The Rockhampton MRF is located within the Rockhampton Regional Council local government area. The Rockhampton MRF is:

- The only MRF located within a 150km radius of the nominated transfer locations of Gladstone Regional Council and Livingstone Shire Council;[1] and
- The only MRF located within a 300km radius of the nominated transfer location of Central Highlands Regional Council.[2]

Opal Packaging Australia Pty Ltd, who is presently contracted separately by each of the Applicants, undertakes recyclables processing from the Rockhampton MRF which is owned by Kriaris Transport Pty Ltd [ACN 093 090 987]. The proposed collaborative procurement model will involve each of the Applicants contracting collaboratively with Kriaris Transport Pty Ltd, a new supplier, using the existing Rockhampton MRF Facility.

Sole supplier resolution in place of tender arrangements

The Applicants have each separately resolved under section 235(a) of the Local Government Regulation 2012 (Qld) that there is only one supplier, namely Kriaris Transport Pty Ltd who own and operate the Rockhampton MRF (the **Supplier**), who is reasonably available to provide the relevant services. Factors supporting the independent resolutions made by the Applicants include the limited number of MRF

[1] RACQ Trip Planner, accessed 24 June 2020
[2] RACQ Trip Planner, accessed 24 June 2020

facilities available within the Region and distances required to travel to alternative MRF locations outside of the collective region, which will inevitably increase cost and carbon miles required for the transport of waste. In addition, alternative MRF locations are currently operating at capacity and may not be able to accommodate the additional waste to be processed from the Applicants' local government areas. Accordingly, the Applicants are not required to undertake a tender process with respect to engagement of the Supplier.

Contract drafting and negotiations

The Applicants propose to enter into individual contracts with the Service Provider on similar terms, with some variance to accommodate regional context in terms of transportation of the waste to the Rockhampton MRF. The individual contracts are proposed to be for an initial term of one year, with options of a maximum of two years.

The Applicants propose to jointly negotiate the main terms of the contract, including terms in relation to the services to be provided and the costs of the services. Noting there may be some need for regional variance, the Applicants may separately negotiate certain terms to accommodate same.

Conduct to be authorised

Authorisation is sought for the Applicants to enter into and give effect to contracts, arrangements or understandings regarding the joint procurement of the relevant services, as described above, on the basis that the proposed conduct will result in a net public benefit.

The Australian Competition and Consumer Commission ("ACCC") has previously granted authorisations to various local councils 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.[3]

2.2 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.

2.3 Rationale

Objectives

[3] 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 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.

The overall rationale for the proposed collaborative procurement process is to enable the Applicants to effectively and efficiently access the relevant services in the Central Queensland Region, to 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),
    - economies of scale are needed to attract a commercial business to provide the relevant services;
- Facilitate resource sharing and efficiencies;
- Enable the Applicants to improve practices in order to increase resource recovery;
- Increase the diversion of waste from landfill;
- Decreasing air space consumption, therefore, extending life of landfill;
- Meet Strategic Targets under the Queensland Waste Management and Resource Recovery Strategy (Queensland Waste Strategy);
- Building a circular economy through resource recovery activities; and
- Facilitate the increased recovery of household recyclable waste (ie aluminium, steel, glass, paper, cardboard and plastics).

Policy context

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 SEQ region.

2.4 Term

Authorisation is sought for a total period of four (4) years, comprising:

- An approximate six (6) month period to conduct the collaborative procurement process for the relevant services, including the negotiation and execution of the contracts in between mid 2020 and 31 December, 2020 (being the date on which the Applicant's current individual contractual arrangements will expire); and
- A maximum three (3) year operating term for each of the contracts entered into between each of the Applicants and the Supplier, dependent on whether individual Applicants elect to exercise their respective options to extend.

The proposed maximum three (3)-year contract term (inclusive of options), is short in industry terms for contracts for relevant services and are intended to allow the Applicants to gauge the effectiveness of the Supplier in achieving maximum resource recovery and diversion from landfill and to also allow each Applicant to develop a longer term strategy for resource recovery.

During the life of the contract the Applicants will consider their options for procuring a further longer term contract (which would commence at the expiry of the contracts with the Supplier) and will seek further authorisation from the ACCC at that time.

Request for Urgent Interim Authorisation

Interim authorisation is sought to enable collaboration between the Applicants in advance of their respective existing contractual arrangements expiring on 31 December, 2020, to:

- enable continuity of service for residents;
- to prevent the Applicants being required to divert recyclable materials to landfill which will attract the waste levy unnecessarily; and

Ultimately, in order to ensure that the Applicants are able to continue to effectively deal with recyclable waste, it is imperative that the new contracts commence on 1 January 2021.

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 Waste Reduction and Recycling Plan (Annexure C)
- Central Highlands Regional Council Amended Waste Reduction and Recycling Plan (Annexure D)

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

In the absence of any other competitors, only the Supplier is anticipated to be impacted by the proposed conduct. Without the proposed collaborative procurement, the Supplier will be required to administer potentially different contracts for the relevant services with each of the Applicants, creating an administrative burden for the Supplier and additional transaction costs for each of the Applicants. In addition, the proposed conduct means that the Applicants are able to ensure that the fixed costs of operating the MRF, which are ultimately passed on to the Applicants are spread over a larger tonnage, reducing the gate fee by ensuring that fixed costs are fairly apportioned. The Supplier also benefits as the gate fee is subject to the commodity prices and operating costs, ensuring that the Supplier and Applicants jointly manage the risks of fluctuating commodity prices and operating costs. Without the Applicants jointly procuring services, the Applicants may have difficulty in securing a supplier individually. An individual Applicant may not generate enough recyclable waste to ensure the economies of scale needed to attract a commercial business to provide the relevant services.

If the Applicants were unable to enter into the proposed conduct and the MRF was unable to operate, this would impact on other local businesses/organisations that use the MRF but do not generate enough recyclable waste to ensure the MRF will operate without the Applicants.

5. Market information

5.1 Services

The Applicants through separate contracts which are not the subject of this Application for Authorisation, provide domestic kerbside recycling waste collection services within their respective local government areas, so that such waste can be transported to resource recovery or disposal facilities.

The proposed relevant services are described in further detail below:

- **Recyclables transport services**: applicable to Gladstone Regional Council and Central Highlands Regional Council only whereby the Supplier is required to collect recyclable waste from the Nominated Transfer Location and transport to the MRF. Rockhampton Regional Council and Livingstone Shire Council will deliver recyclable waste directly to the MRF.
- **Recyclables acceptance and sorting**: the Supplier is responsible for the receipt of recyclable waste and the subsequent storage, sorting and processing. Recyclable waste is sorted into the categories of glass, paper, cardboard, steel, aluminium, plastics and residual waste.
- **Subsequent marketing and sale of recyclable waste:** the Supplier is responsible for the transport and marketing of the recyclable waste once processed. Markets are located in the capital cities of Brisbane and Sydney. The Applicants typically do not separately contract for individual waste streams as they each outsource sorting and their typically lower residual value and volumes which require economies of scale to make recycling of individual waste streams economically viable.
- **Residual waste disposal:** Residual waste that cannot be recycled or recovered is transported to landfill for burial with disposal charges applied.

Since introduction of the China's National Sword Policy on 1 January 2018, (China's restriction on the import of solid waste as raw material), there has beena decline in the commodity value of materials and market demand. Prompted by the decline in

commodity values, the Applicants' current contractor has advised that they do not want to extend their existing agreement beyond 31 December 2020.

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 88,646 square kilometres and a population of over approximately 211,703 as at 30 June 2019 which is projected to increase to 265,353 by 2041.[4] The geographic location of the region is depicted in Figure 1 below.

Figure 1: Map of Applicants' local government areas

5.3 Overlaps

The Applicants relevantly overlap in the acquisition of waste and resource recovery services in the Central Queensland region.

5.4 Industry

[4] Queensland Government Statisticians Office, 2 July 2020

The relevant industry is the waste and resource recovery industry in the local government areas of Rockhampton, Gladstone, Livingstone and Central Highlands. Broadly, that industry involves the following supply chain:

- **Collection:** the Applicants, through separate contractual arrangements not the subject of this Application for Authorisation, collect 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.
- **Transport:** the kerbside collection waste is transported to the MRF which separates and consolidate recyclable waste for further processing and disposal of the residual waste by landfill.
    - Rockhampton Regional Council and Livingstone Shire Council currently contract their kerbside collection service provider to drive each full collection vehicle to the MRF.
    - Gladstone Regional Council's waste collection contractor currently drives 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 currently contracts Kriaris Transport to bulk haul recyclable waste from the Nominated Transfer Location in Central Highlands Regional Council to the MRF. Haulage services are provided on a twice-weekly basis.
- **Receiving, sorting, processing and disposal of residual waste:**
  In order for kerbside recyclable waste to be sorted into the various categories, the MRF uses the following steps;
    - Material enters sort line and residual waste is removed;
    - Material travels over 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
    - 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.

  The MRF in Rockhampton is currently the only MRF in the Applicants' joint local government region.
- **Onsite re-processing facilities:** receive and change the physical structure and properties of various waste materials that would otherwise be sent to landfill, in order to increase their beneficial use and financial value. There are no 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 is ordinarily transported to the Rockhampton Waste Management Facility located at 252 Lakes Creek Road, The Common, Rockhampton.

6. Market shares

Table 1 below sets out the approximate annual volumes for kerbside recyclable waste collected by each of the Applicants:

Table 1: Kerbside Recyclable Waste Volumes (Year to date - May 2019 to April 2020)

Council	Kerbside Recyclable Waste
Gladstone Regional Council	3,415
Rockhampton Regional Council	4,598
Livingstone Regional Council	1,942
Central Highlands Regional Council	1,145
Total	11,100

7. Competitive constraints

7.1 Existing competitors

The Applicants, as well as other local governments in adjacent 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.

7.2 Likely entry by new competitors

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. Local governments further afield are already serviced by MRFs which are closer to their respective local government areas and as such are unlikely to contract with the Supplier at the Rockhampton MRF.

Recyclables Processing Competitors

Entry by new competitors requires a tender process with a lead in time of two (2) to three (3) years. This provides opportunity for contract drafting, legal review, invitation to tender, tender assessment and awarding, followed by the construction and commissioning of the MRF itself.

Additionally, the establishment of a green field site by a new competitor will require land acquisition and necessary development approvals.

Experience confirms that a MRF with a processing capacity of less than 11,000 tonnes per annum is not viable, without converting to manual hand sorting.

A MRF with a processing capacity of 11,000 tonnes per annum with glass beneficiation is estimated to cost between $7M to $9M.

Again, experience confirms that a contractor will not make such a significant capital investment without a return on investment that would be achieved through viable economy of scales (i.e. 11,000 tonnes per annum) and a long-term contractual agreement. Regional areas such as Central Queensland are also faced with long haul distances which significantly increase transport costs. This regional approach allows a local government such as Central Highlands Regional Council to participate in a resource recovery program that otherwise would not be viable.

7.3 Countervailing power of Service Providers

The existing recyclables processing Suppliers exercise considerable countervailing power for reasons including the following.

- **Essential services:** As local governments, the Applicants are responsible for the delivery of essential waste and resource recovery services in their respective local government areas, which members of the public expect. The Applicants must engage Service Providers to deliver those services, and must also ensure their continuity (ie. in the case of service disruptions). In that context, Suppliers are able to exercise considerable countervailing power when negotiating with the Applicants in terms of both service delivery and pricing.
- **Barriers to entry:** 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 Supplier's abilities to secure long-term supply contracts and sufficient volumes of recyclable waste. This can be difficult for Suppliers 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 legislatives frameworks, with only Central Highlands Regional Council expected to construct a new landfill within the next decade.

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

8. Counterfactual

The Applicants have not formed a final view on the appropriate counterfactuals should the proposed conduct not be authorised. However, the Applicants have considered that the following two counterfactuals are possible:

- The Applicants could individually negotiate for the supply of the relevant services, although it is expected that the benefits related to the risk and cost sharing formula which each of the Applicants propose to adopt if authorisation is granted, would not be available to Councils negotiating individually, resulting in a significantly increased cost of services being passed onto rate-payers. For some Applicants, it may not be economically viable for the Applicants to negotiate individually. In particular, Livingstone Shire Council and Central Highlands Regional Councils, being the Applicants with the smallest recyclable waste volumes, would likely not be able to provide a resource recovery solution to their respective communities as they would not be able to attract a commercial business interested in providing such a service due to uneconomical economies of scale; or
- The Applicants could structure their procurement plans to engage in a modified form of collaboration that relies on the joint venture and collective acquisition exceptions to the relevant prohibitions in the CCA;

If either approach above were adopted, the Applicant considers that this would undermine the substantial public benefits sought to be achieved by the proposed conduct, which are discussed in section 9 below.

Specifically, the Applicants consider that either approach would result in:

- Higher transaction costs, as each of the Applicants would have to draft and negotiate contracts individually and ultimately these costs would be borne by residents and rate-payers of the communities in each local government area;
- Reduced economic efficiencies through the smaller scale of potential contracts;
- If higher contracting costs resulted, potential that one or more of the Applicants could withdraw from negotiations with the Supplier and divert recyclables that could otherwise be beneficially reused to landfill;
- Applicants unable to attract a commercial business/MRF to provide recyclables processing services due to the uneconomical economies of scale for smaller quantities of recyclable waste;
- Reduced opportunities to capitalise on joint subject matter expert expertise which would be leveraged though collaboration between the Applicants; and
- No guarantee that the Supplier would be able to continue to operate, which has a significant likelihood of resulting in the loss of the facility and recyclables processing capacity within the collective region.

9. Public benefits

The proposed collaborative procurements will result in significant and sustained improvements to community welfare in each of the Applicant's 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.

Without a local MRF facility, all potentially recyclable waste collected from the Applicant's 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.

In addition, if the MRF is not viable and unable to continue to operate, this would impact on other local businesses/organisations that use the MRF. These businesses/organisations rely on the Applicants supporting the MRF and ensuring that the MRF remains in operation.

In terms of the achievement of economies of scale, the collaborative procurement will lead to:

- **Spreading fixed costs:** A greater number of Councils to share fixed operating costs and anticipated reduction in plant debt which will benefit each of the Applicants should they choose to exercise their option to extend;
- **Allocation of aggregated volumes to an existing underutilised facility:** The proposed collaborative procurements will allow aggregated volumes of recyclable waste to be referred to the Rockhampton MRF which is currently operating below its optimum economies of scale. The collaboration between Councils will assist the Rockhampton MRF increase its viability and is anticipated to result in a minimum band range of 11,000 to 12,000 tonnes of recyclable waste, which would not be achieved under individual contracts;
- **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' volumes is also likely to encourage investments by the Supplier in more advanced technology in waste streams, which will further enhance the operating performance and recovery efficiency of the MRF, such investment opportunities would not be available without collaborative procurement.

It is noted that the Gate Fee above is based on all Applicants contracting with the Supplier, the Gate Fee would be significantly higher if Councils individually contracted with the Supplier, both from a tonnage and fixed and variable cost input perspective. The collaborative approach will allow all parties to share and manage the risks of fluctuating commodity prices and operating costs of the MRF as the gate fee is subject to the total tonnage processed along with the varying commodity prices and operating costs.

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 collaborative procurements assist in diverting waste from landfill to alternative waste and resource recovery solutions (including beneficial reuse and recycling), they are likely to result in improved environmental outcomes in the form of improved 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. 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 collaborative procurement, there is significant risk that 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.
    - Rockhampton Regional Council, Gladstone Regional Council and Livingstone Shire Council are also at risk of being left without any economically viable option for processing their recyclables, which may result in further potential recyclable waste ending up in landfill.

- **Development of re-processing markets:** 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, which would otherwise be diverted to landfill (including incentivising investment by the Supplier in further recyclables processing technology, increasing reuse of waste which would otherwise have been diverted to landfill).

The broad categories of public benefits mentioned 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

As outlined above in 2.1 under the heading “Sole supplier resolution in place of tender arrangements”, due to economies of scale, the Applicants submit that the proposed conduct will not result in any discernible public detriment, noting that there is only one MRF reasonably available to the Applicants and in any event in negotiating with the Supplier, the Applicants will likely use the same formula which enables the Supplier to recover sufficient 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: [redacted]

Contact Address: [redacted]

Facility Location: 204 Wade Street, Parkhurst, NORTH ROCKHAMPTON QLD 4702

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).

[redacted]

Signature of authorised person

CHIEF EXECUTIVE OFFICER

Office held

LEISA ANNE DOWLING

(Print) Name of authorised person

This 22nd **day of** July 2020

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)

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.

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[redacted]

Signature of authorised person

MANAGER - ROCKHAMPTON REGIONAL WASTE AND RECYCLING.

Office held

TIMOTHY MICHAEL O'KEEFFE

(Print) Name of authorised person

This 6TH. day of July 2020

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)

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

Acting Chief Executive Officer

Office held

Brett Patron

(Print) Name of authorised person

This third **day of** July 2020

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Signature of authorised person

CHIEF EXECUTIVE OFFICER CENTRAL HIGHLANDS REGIONAL COUNCIL

Office held

SCOTT MASON

(Print) Name of authorised person

This 10th day of July 2020

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.

Annexure A

GRC Waste Management and Resource Recovery Strategy 2019

2019

WASTE MANAGEMENT & RESOURCE RECOVERY

STRATEGY

GHD

GLADSTONE
REGIONAL COUNCIL


118K
CAUTION DUAL CONTROL
118K
IVECO
J.J.Richards & Sons Pty Ltd
PROUDLY
AUSTRALIAN
OWNED & OPERATED
J.J.Richards
& Sons Pty Ltd
264·RTK

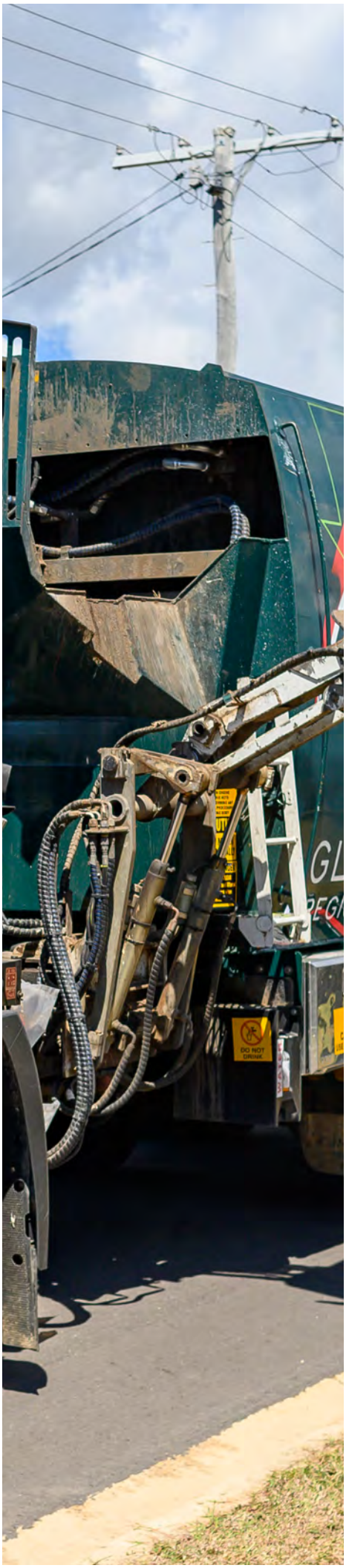

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Figure Index

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.

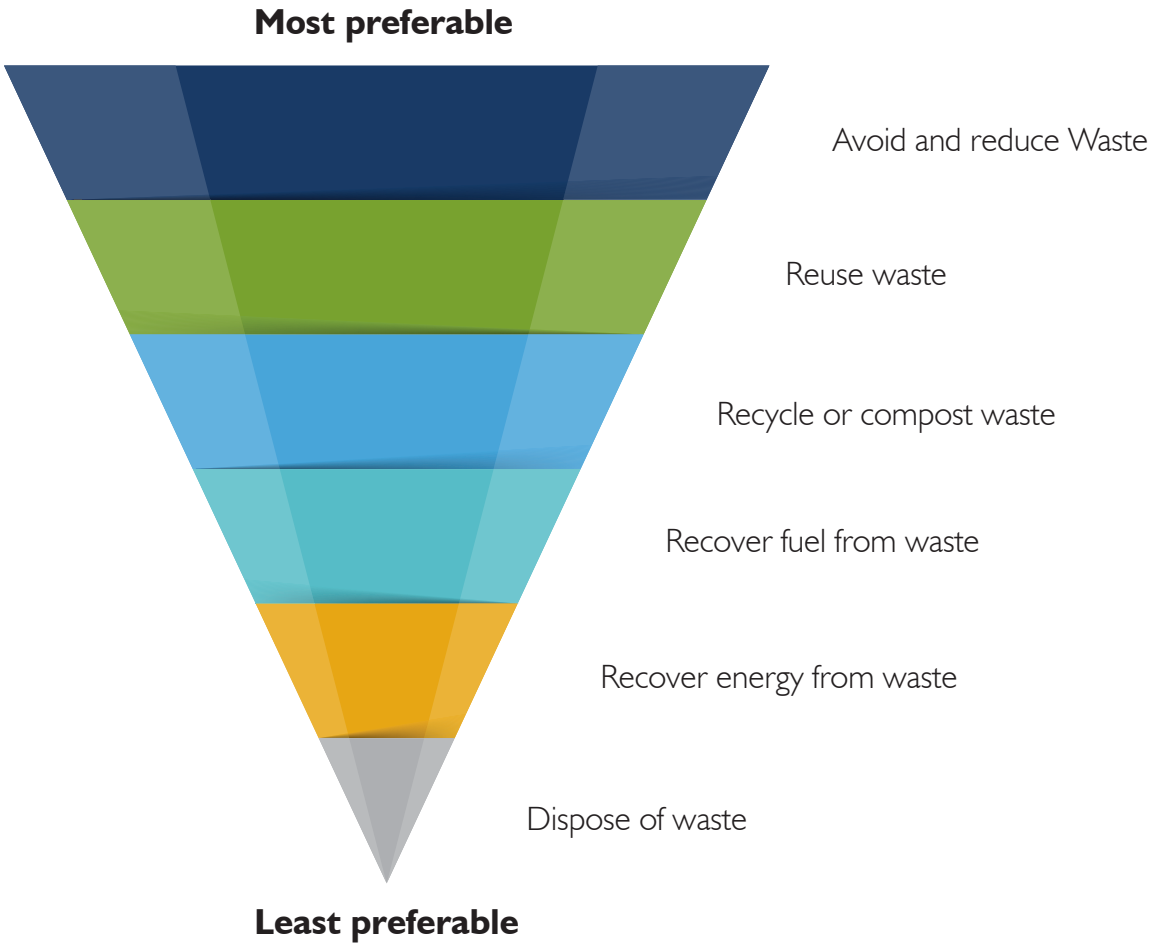


Figure 1 Waste and resource management hierarchy[1]

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.

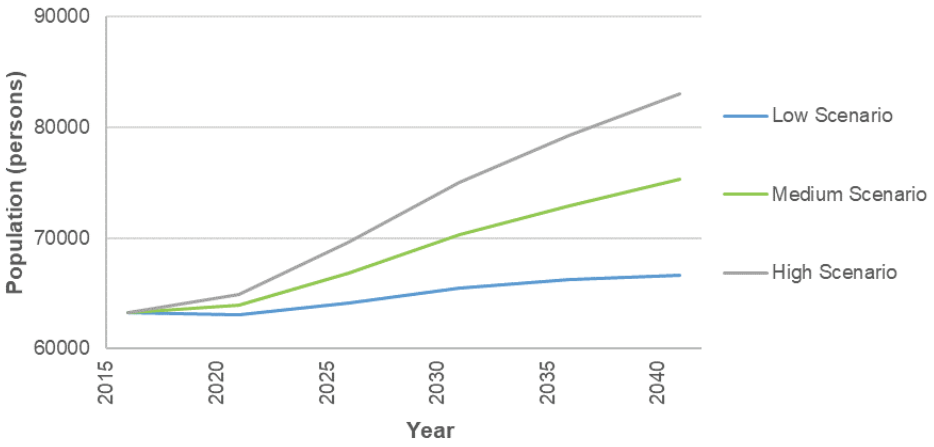


Figure 2 Gladstone population projections

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.

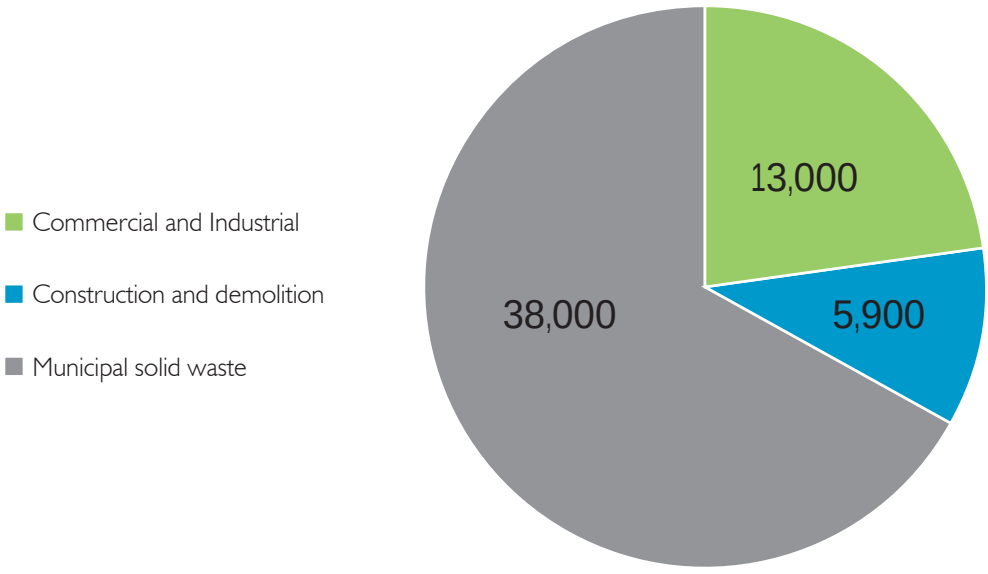


Figure 3 2017/2018 waste generation

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.

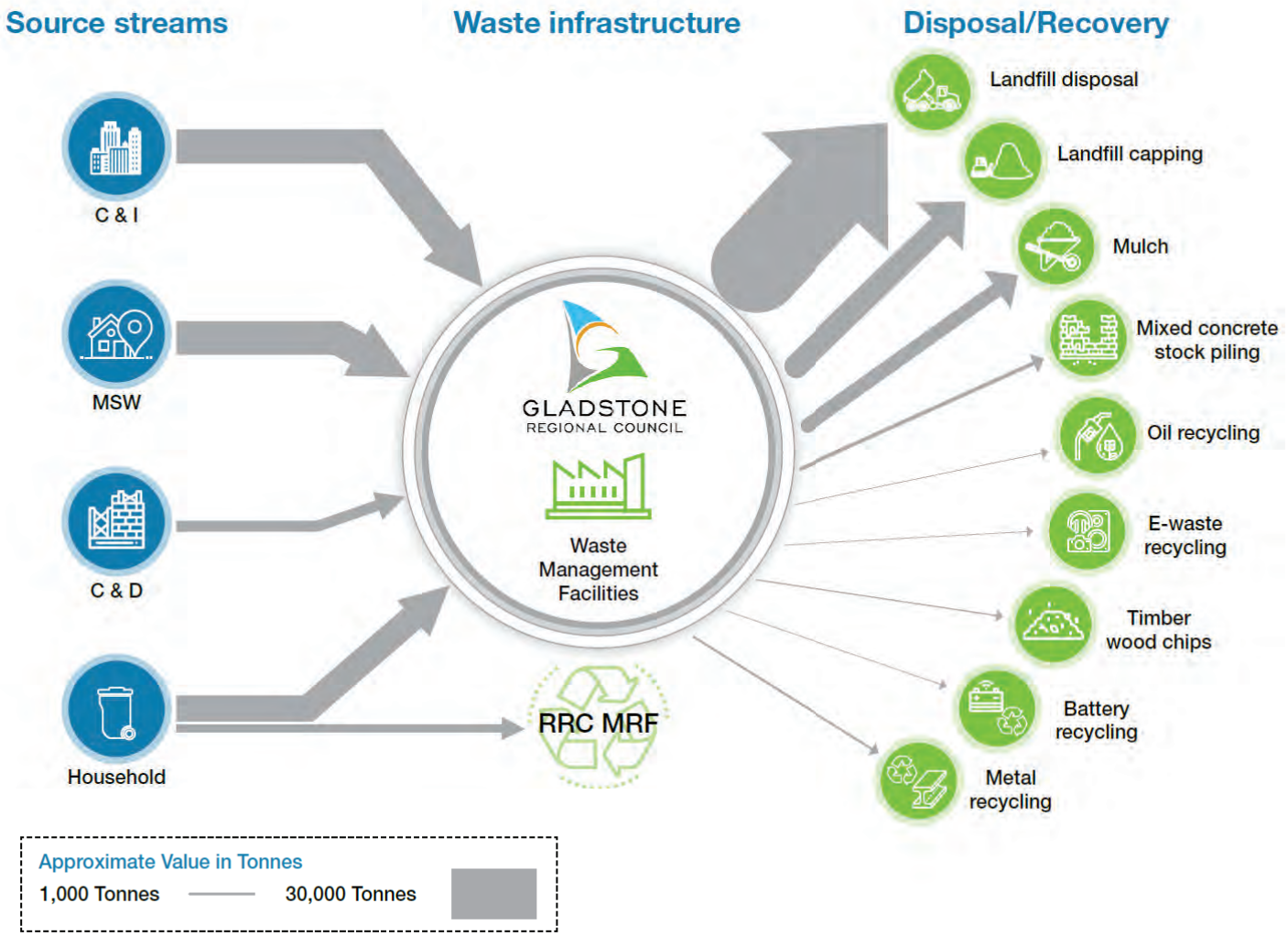


Figure 4 Gladstone region waste flow

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.

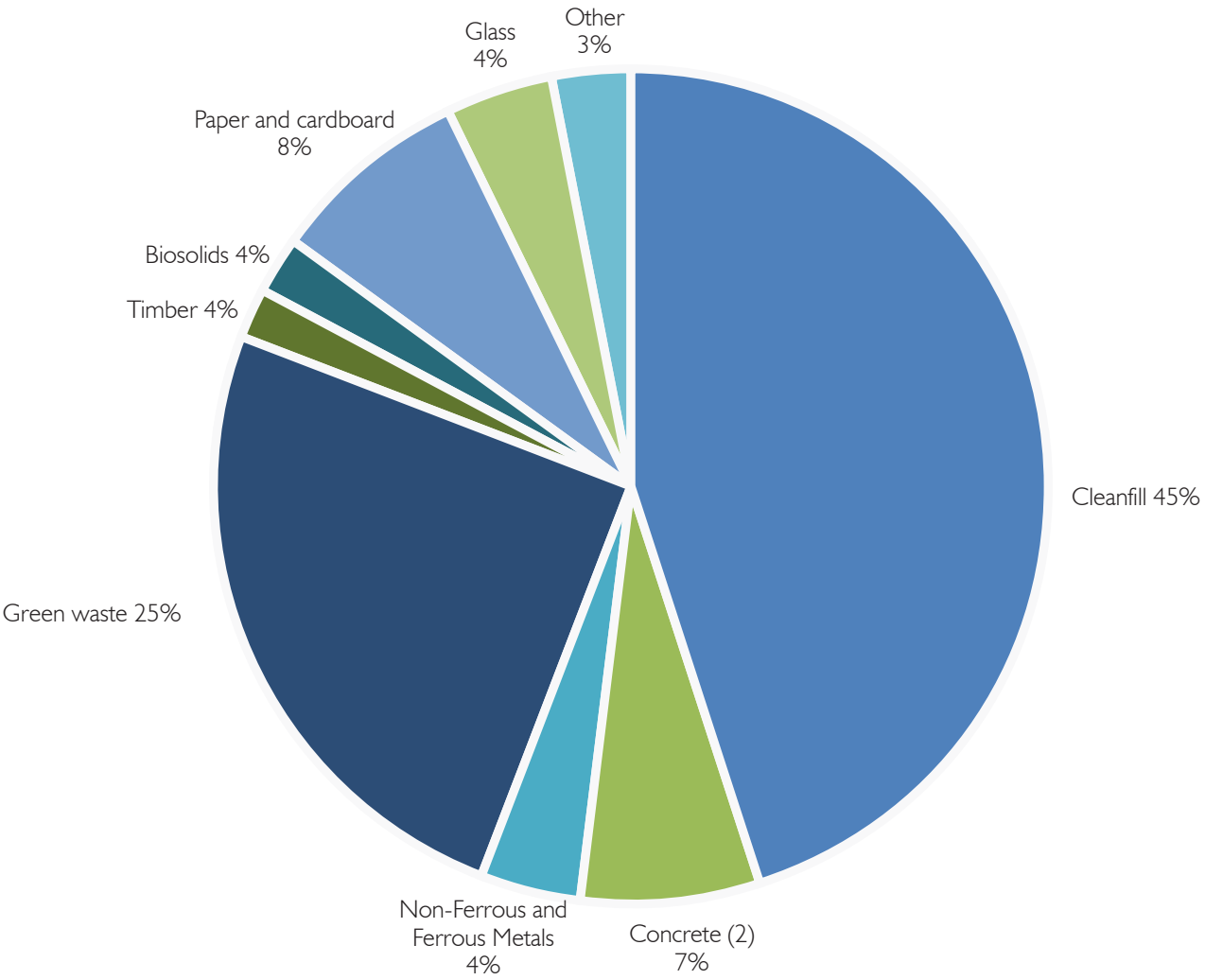


Figure 5 Materials recovered in Gladstone

[3] Asphalt, brick and tile recovery have not been itemised under a waste type and have been included in the value for concrete.
[4] '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.

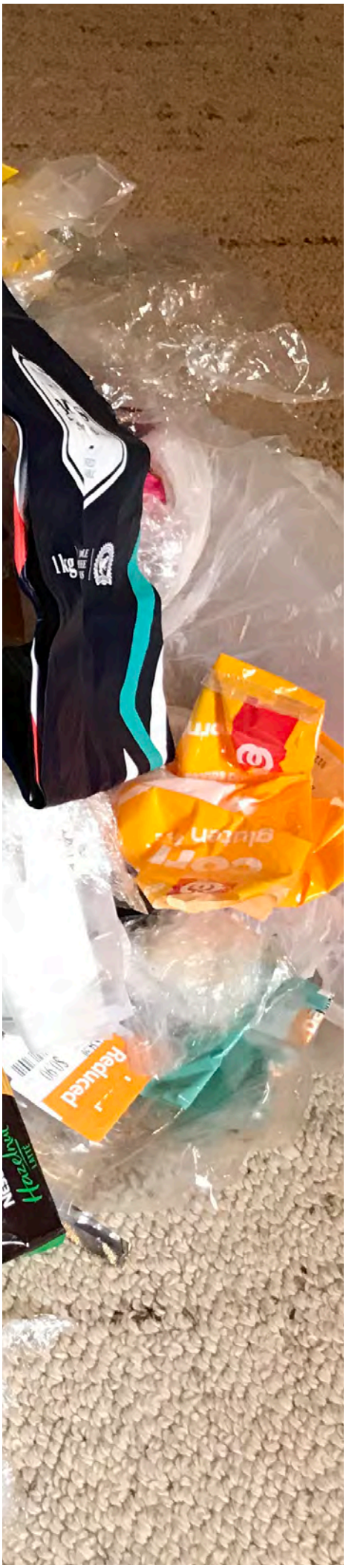
The hierarchy is the framework used to guide the order of preference for managing waste. Council is committed to managing waste at the highest practical level of the hierarchy in order to achieve the best outcome for both the environment and future generations.

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


CATERPILLAR
CAT
OPE SHIRE COUNCIL


RED ROYALE
700g
BEEF
1kg
woolworths market
3kg



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.

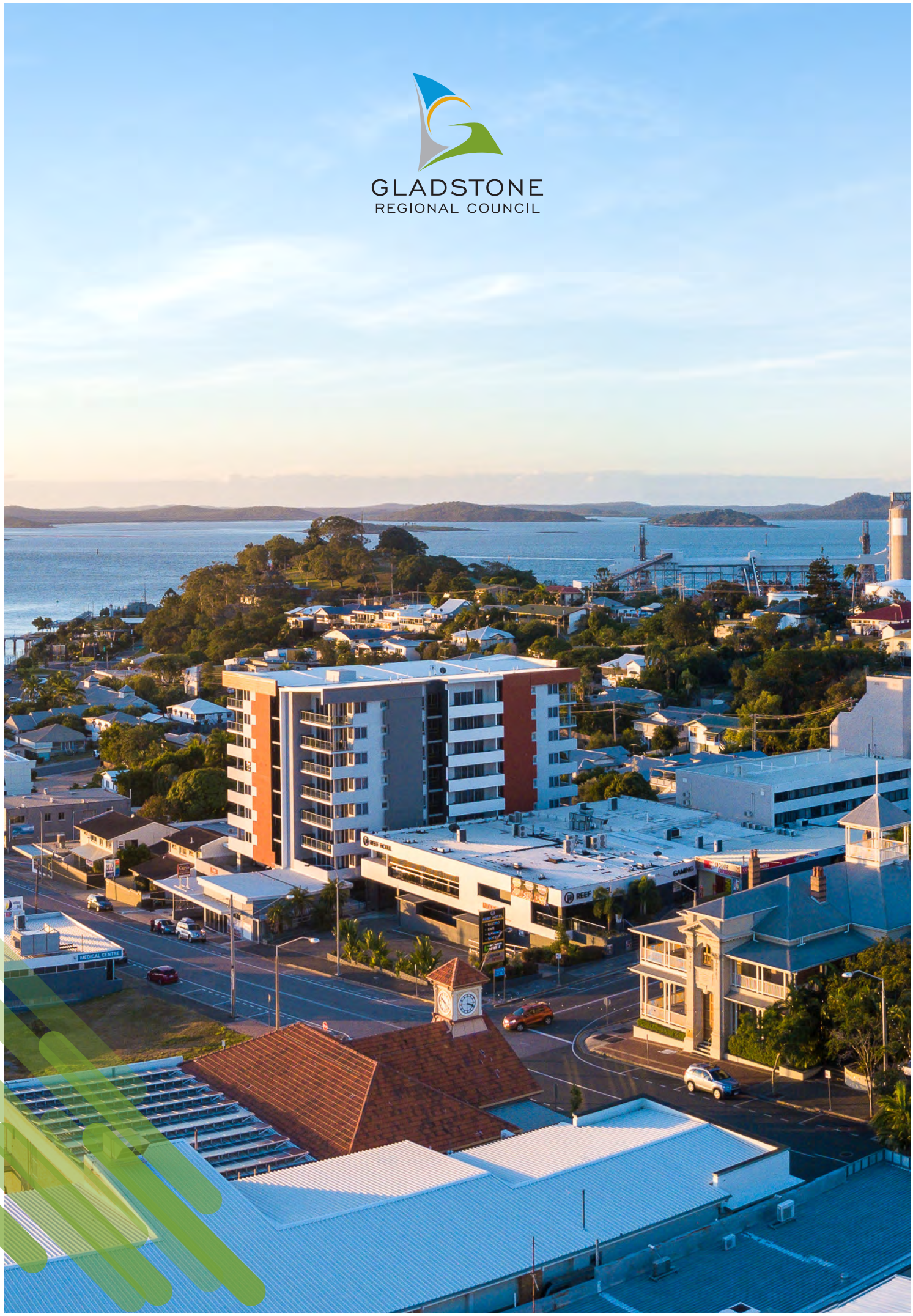
Objective

- 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

RRC Regional Waste Strategy 2020-2030

Waste STRATEGY

2020-2030

Building a Circular Economy

Rockhampton Regional Council

Contents

Rockhampton Regional Council

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.

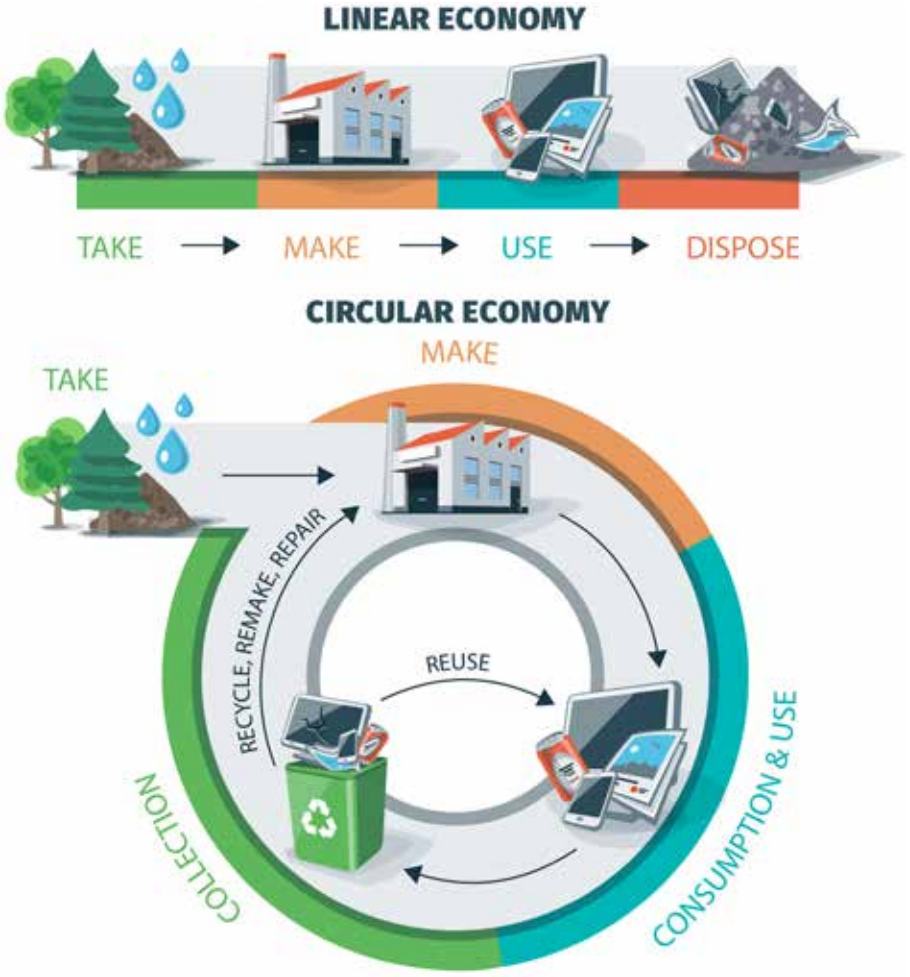
Guiding Principles

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.

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.

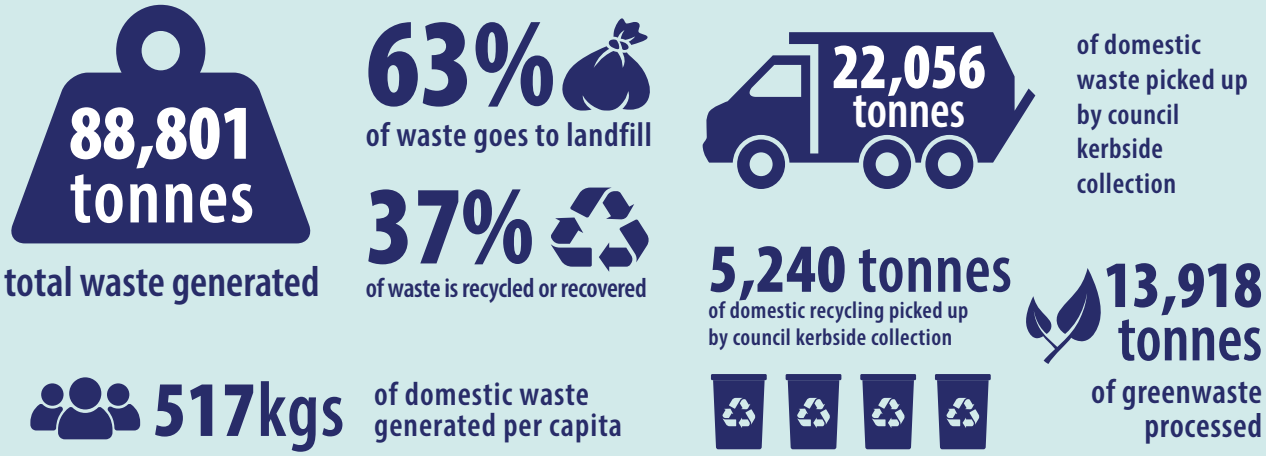
When making pricing decisions for our services, it is important that the full cost of the service provided is levied upon the user of that service and not future generations e.g. when we are pricing the cost of landfill disposal, we must ensure that we charge a price that reflects not only the current 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



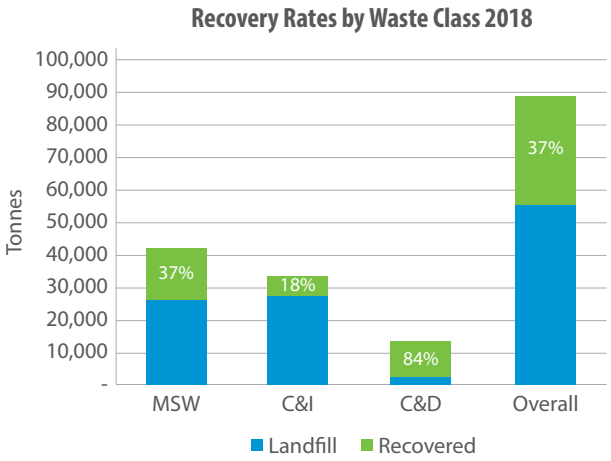
Where Are We Now?

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%.



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.

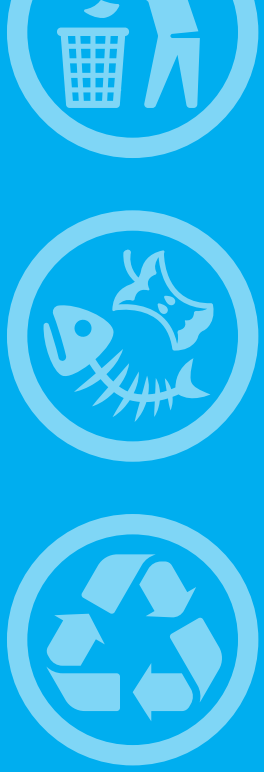
WASTE FACILITIES

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
Waste Generation	
Population growth and increasing per capita waste generation is creating an ever increasing quantity of waste to be managed. 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.	Council has a strong voice in the local community, so can use this influencer role to promote key waste reduction messages. Council can directly impact waste generation behaviours via pricing strategies on its key services. Council can directly reduce its own waste generation with structural changes to its procurement policies and behaviours.
Policy Landscape	
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. Difficulty for council is to remain responsive to this changing policy landscape whilst still being able to set our own long-term strategic agenda.	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. 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. Opportunities to access several new streams of government funding.
Market Development	
Market demand for recovered materials in our local economy are very limited. 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.	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.
Technological and Investment Risks	
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. Poor decision making could lock council into inappropriate or failed solutions.	Strategic review at this time gives council the opportunity to identify options that will deliver good quality outcomes for our community. 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.

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.

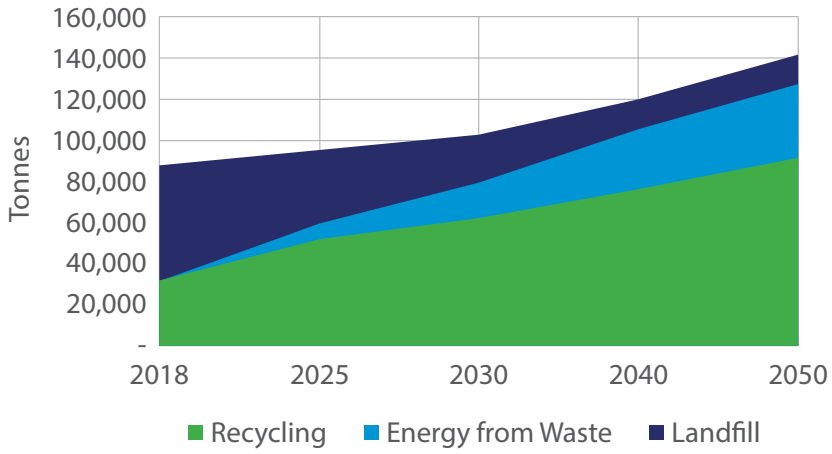
We acknowledge that there will always be residual wastes for which there is no viable alternative than to send to landfill, such as asbestos or contaminated soils. In line with the Queensland Waste Strategy, we have defined zero waste as achieving 90% diversion from landfill.

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 contactor 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

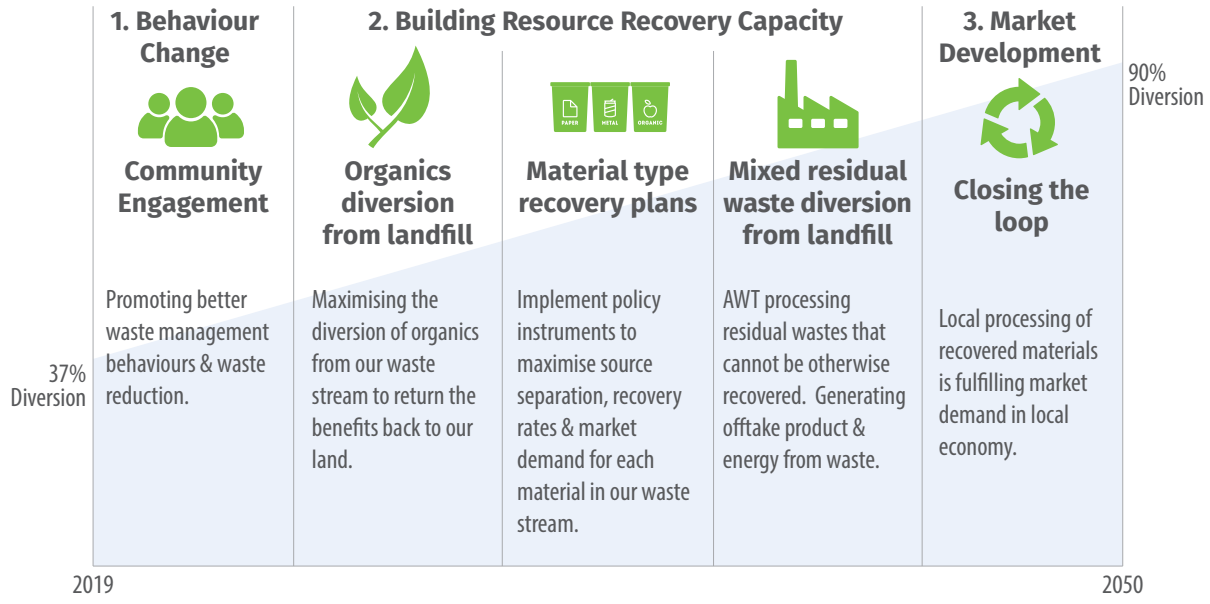
3.1 **Development of a sustainable, local compost market.**
Seek out sustainable markets for compost product from our chosen organics processing solution. Product could include composts, feed, nutrient supplements, fertilisers and soil conditioners.

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
01: BEHAVIOUR CHANGE										
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										
02: BUILDING RESOURCE RECOVERY CAPACITY										
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										
03: MARKET DEVELOPMENT										
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

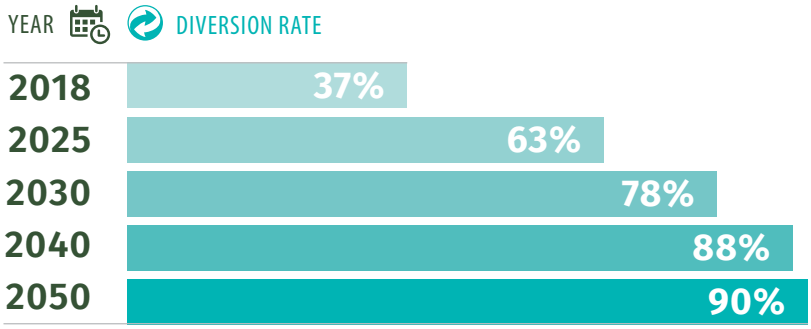
Over the life of this strategy we will implement a wide range of actions and will work with many partners from across the community. Some of these actions will be easy to track and have a very clear measure of success, whereas other actions will be much harder to measure directly or over the short term. 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

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".

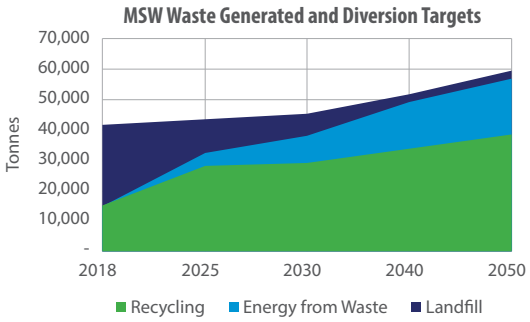
The project has not only of course saved money but has also resulted in a very significant diversion of materials from landfill. Civil Operations Manager David Bremert expressed pride in the project saying:

"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)

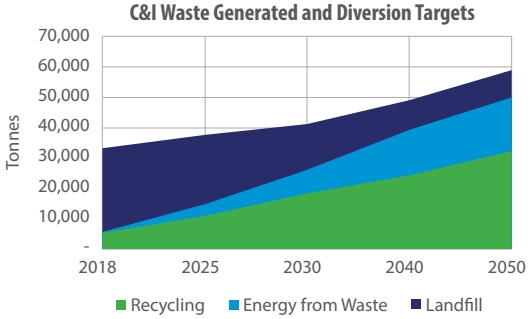
The MSW forecast has factored in a 25% per capita reduction in household waste between 2018 and 2050, in line with the Queensland Strategy. The combined impact of this per capital reduction with the increased population over the same period will result in a forecast of 59,742 tonnes of MSW waste in 2050. 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.

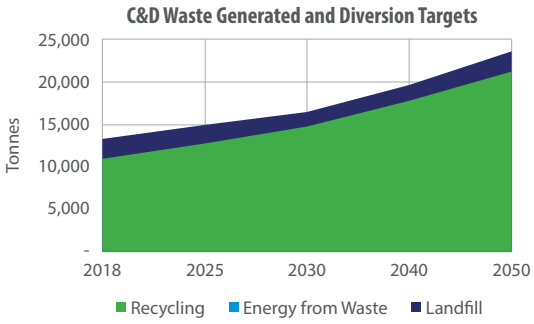


C&I	2018	2025	2030	2040	2050
Waste Generated (tonnes)	33,284	37,711	41,229	49,281	58,906
Recycling %	18%	30%	45%	50%	55%
Energy from Waste %	0%	10%	20%	30%	30%
Total Diversion %	18%	40%	65%	80%	85%
Residual to Landfill %	82%	60%	35%	20%	15%
Residual to Landfill (tonnes)	27,173	22,626	14,430	9,856	8,836

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.

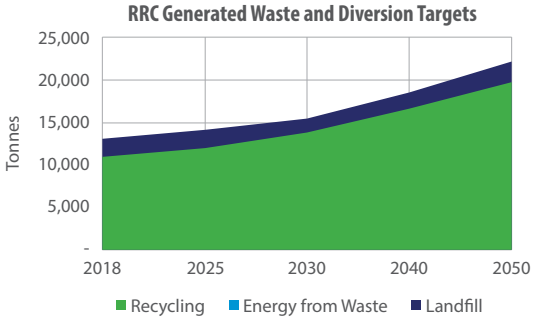


C&D	2018	2025	2030	2040	2050
Waste Generated (tonnes)	13,353	15,109	16,509	19,723	23,565
Recycling %	84%	85%	90%	90%	90%
Energy from Waste %	0%	0%	0%	0%	0%
Total Diversion %	84%	85%	90%	90%	90%
Residual to Landfill %	16%	15%	10%	10%	10%
Residual to Landfill (tonnes)	2,135	2,266	1,651	1,972	2,356

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 masonary materials so is not suitable for energy from waste processes. As such, no Energy from Waste target is set for Councils own waste.

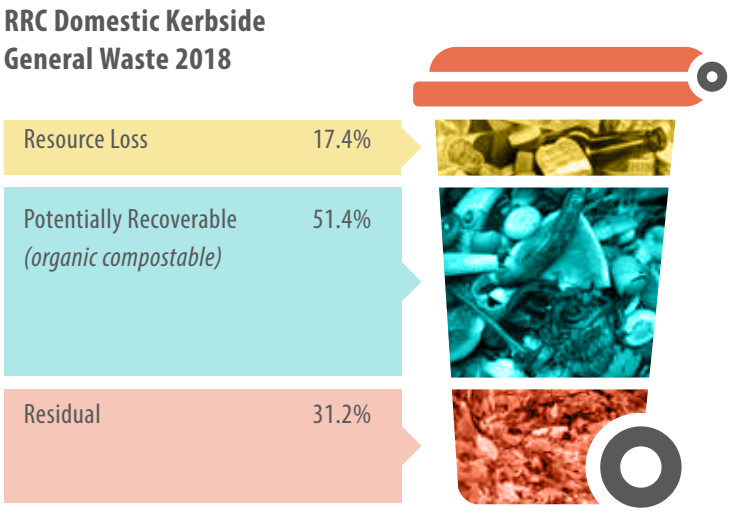


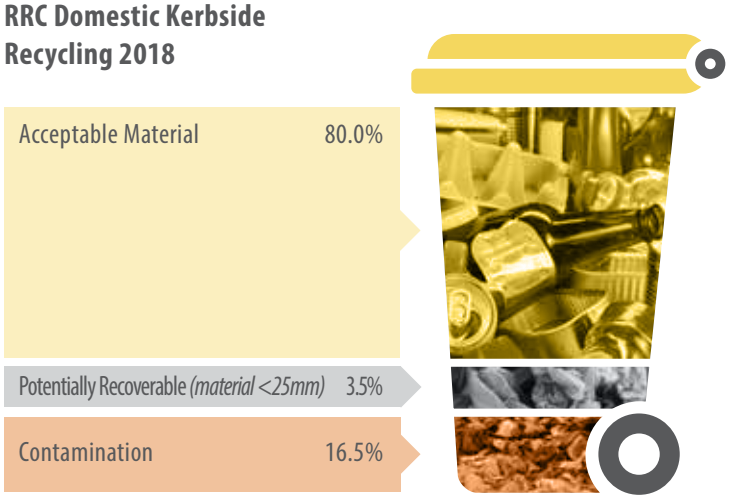
RRC	2018	2025	2030	2040	2050
Recycling %	88%	85%	90%	90%	90%
Energy from Waste %	0%	0%	0%	0%	0%
Total Diversion %	88%	85%	90%	90%	90%
Residual to Landfill %	12%	15%	10%	10%	10%
Residual to Landfill (tonnes)	1,447	2,117	1,543	1,844	2,204

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.





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.

Rockhampton Regional Council

Waste STRATEGY

2020-2030

Building a Circular Economy

Annexure C

LSC Waste Reduction and Recycling Plan 2016 to 2026

Livingstone Shire Council

Waste Reduction and Recycling Plan

2016 – 2026

Contents

Terms and Abbreviations

Term/abbreviation	Definition
ABS	Australian Bureau of Statistics
ACCU	Australian Carbon Credit Unit
AWT	Alternative waste treatment
BS	Roadside bin station
C&D	Construction and Demolition
C&I	Commercial and Industrial
CER	Clean Energy Regulator
CHRC	Central Highlands Regional Council
CPM	Carbon Price Mechanism
CQG	CQG Consulting (CQ Environmental Pty Ltd)
CQMRF	Central Queensland Materials Recovery Facility
Cwth	Commonwealth
DCCEE	Department of Climate Change and Energy Efficiency
DoE	Department of the Environment
EA	Environmental Authority
EHP	Department of Environment and Heritage Protection
GRC	Gladstone Regional Council
IRC	Isaac Regional Council
LGA	Local Government Area
LSC	Livingstone Shire Council
MRF	Material recovery facility
MSW	Municipal solid waste
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measures
NGERS	National Greenhouse and Energy Reporting

Term/abbreviation	Definition
NPI	National Pollution Inventory
QLD	Queensland
QWDS	Queensland Waste Data System
SEIFA	Socio-Economic Indexes for Areas
WRR Act	*Waste Reduction and Recycling Act, 2011 (Qld)*
WRRP	Waste Reduction and Recycling Plan
WTS	Waste Transfer Station

Glossary

Term	Definition
Construction and Demolition Waste	Waste generated as a result of carrying out building or demolition work, as defined under the *Building Act 1975*.
Commercial and Industrial Waste	Any waste generated as a result of carrying out business activity, and includes schools, restaurants, offices, retail and industrial sites. It does not include construction and demolition wastes.
Illegal Dumping	The unlawful disposal of large volumes (greater than 200 litres) of waste (EHP 2014).
Landfill Airspace	The amount of remaining volume available for disposal of waste. Directly linked to the lifetime of the Landfill.
Littering	The unlawful disposal of small amounts of rubbish (less than 200 litres), such as cigarette butts and, discarded food wrappers, generally by scattering on the ground (EHP 2014).
Municipal Solid Wastes	Also known as domestic waste. Waste generated as a result of standard day to day activities in a domestic premises, as well as Council activities (such as collection bins from parks and gardens) and either: • Taken from the premises by or on behalf of the person who generated the waste; or • Collected by or on behalf of a local government as part of a waste collection and disposal system.
Recycling	The collection and processing of waste for use as a raw material in the manufacture of the same or similar products.
Residual	General waste that is not recyclable and produced by residents with the Shire.
Resource Recovery	The diversion of waste from the Landfill, including material that is recycled, reprocessed or saved for future reuse.
Waste	Defined in s13 of the *Environmental Protection Act 1994 (Qld)* and includes anything other than a resource approved under Chapter 8 of the *Waste Reduction and Recycling Act 2011,(Qld)* that is left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity, or surplus to the industrial, commercial, domestic or other activity generating the waste. Waste can be a gas, liquid, solid or energy, or a combination of any of them. A thing can be waste whether or not it is of value.

Executive Summary

This Waste Reduction and Recycling Plan (WRRP) 2016 – 2026 has been developed in accordance with the *Waste Reduction and Recycling Act 2011 (Qld) (WRR Act).* The overall purpose of the WRRP is to develop a clear path forward for sustainable waste management within the Livingstone Shire to enable efficient use of existing facilities in a way that is cost effective and meets regulatory requirements.

The WRRP provides a framework and implementation strategy as presented in **Figure ES1** and **Figure ES2**.

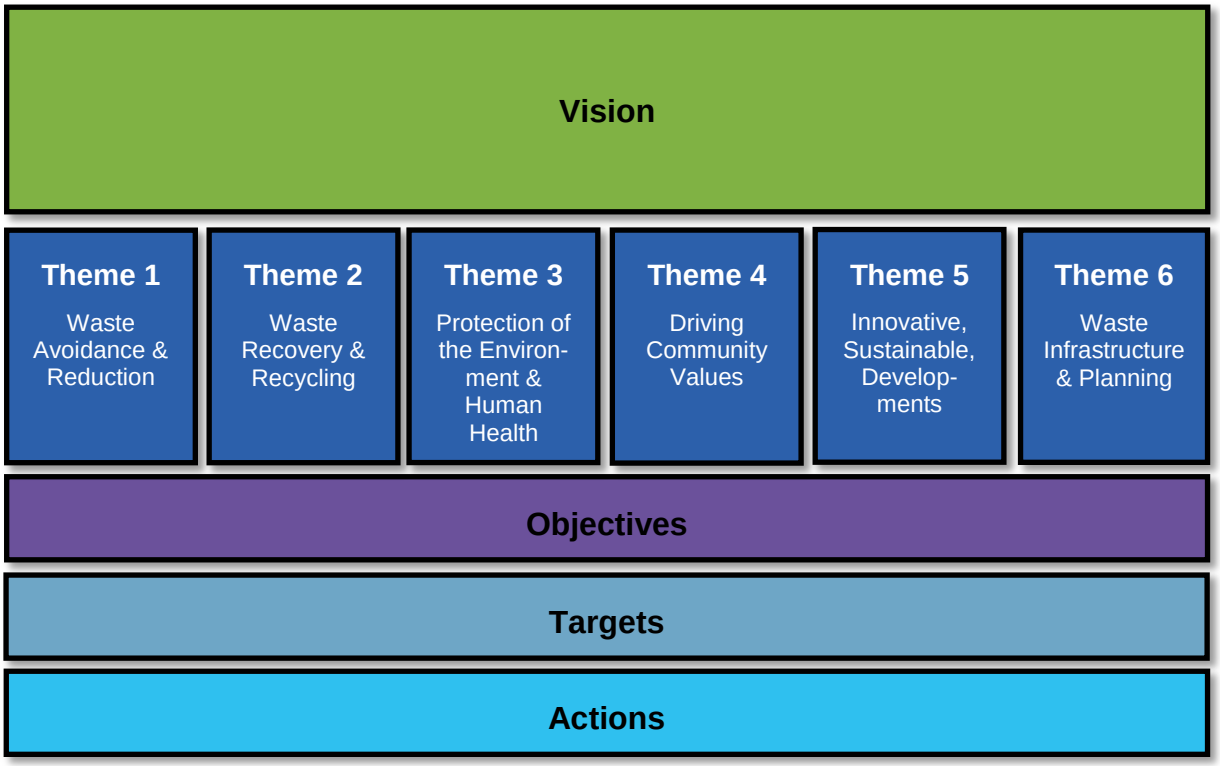


Figure ES1: LSC WRRP Framework

Theme 1 **Waste Avoidance and Reduction**	•Reduce the amount of waste generated in the Shire per capita. •Establish baseline waste data by 2016/2017. •Measure and communicate success of implementation.
Theme 2 **Waste Recovery and Recycling**	• Increase the recovery and recycling rate of waste in the Shire. •Reduce contamination of recyclable waste. •Measure and communicate success of implementation.
Theme 3 **Protection of the Environment and Human Health**	• Ensure Council's waste operations are compliant with environmental and workplace health legislation. • Continue to investigate opportunities to reduce the potential impacts from Council's waste operations on the environment and human health. • Reduce illegal waste dumping and littering. • Ensure action plans are developed and implemented to identify and manage problem or priority wastes. • Ensure no harm to the environment or human harm results from closed landfills.
Theme 4 **Community Values**	• Promote the values of the WRRP to the community. • Identify opportunities to increase community awareness of waste reduction, recycling and management programs and implement education programs. • Collaborate with community organisations to achieve the objectives outlined in the WRRP. Ensure support and participation in community collaborative waste reduction efforts.
Theme 5 **Sustainable, Cost Effective Developments and Innovation**	• Engage with the Central Queensland waste industry to develop innovative opportunities and collaborative efforts for waste management improvements, both within the Council and externally. •Review waste data collection systems to ensure data is captured accurately and in line with the targets of the WRRP (MSW, C&I, C&D and LSC waste streams). Ensure retrieval of data is simple and manageable. • Investigate opportunities to establish alternative waste treatment technologies, and resource recovery within the Shire.
Theme 6 **Waste Infrastructure Planning**	• Ensure the extension of the Yeppoon Landfill is appropriately designed and planned to maximise potential air space, minimise environmental harm. • Upgrade the entry works at Yeppoon Landfill to provide improved opporutunities for increasing recycling a resource recovery.. • Conduct an investigation/assessment into current and proposed future waste infrastructure and services with the purpose of developing a Waste Infrastructure Plan (WIP) based on the findings.

Figure ES2: WRRP Themes and Objectives

1. Introduction

1.1. About Livingstone Shire

Livingstone Shire is a local government area located in the Capricornia region of Central Queensland, approximately 500 kilometres north of Brisbane and 42 kilometres east of the city of Rockhampton. Covering an area of approximately 11,700 square kilometres the Shire is bordered by Rockhampton Regional Council (RRC) to the south-west.

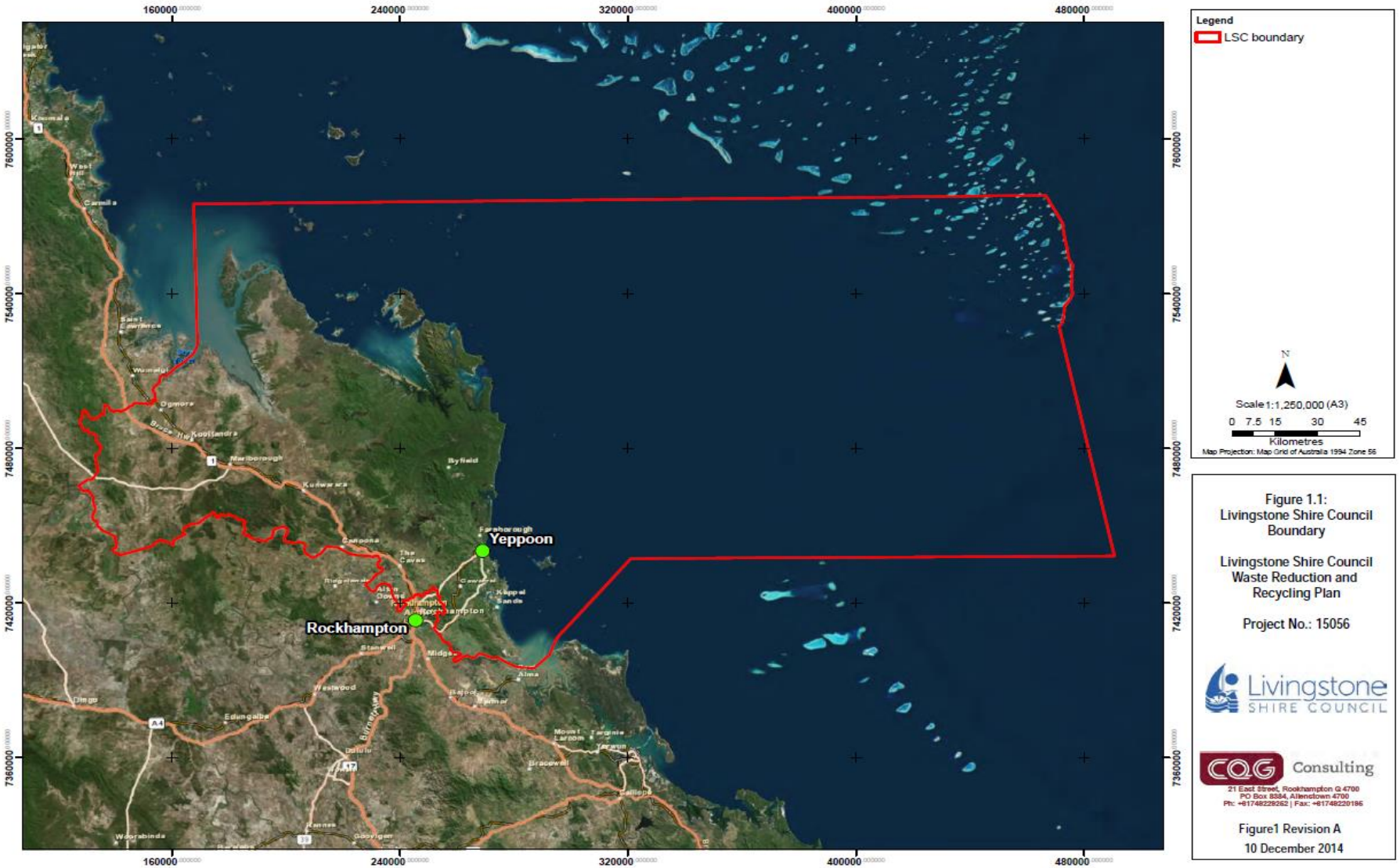
Livingstone Shire Council (LSC) existed as a local government entity from 1879 to 2008 when it amalgamated with several other Councils to become part of the RRC. LSC was re-established on 1 January 2014 following a successful de-amalgamation referendum in 2013.

LSC, administered from the town of Yeppoon, covers an area of approximately 11,776 square kilometres encompassing coastal areas (see **Photograph 1.1)** as well as urban and rural communities. The population of LSC is currently approximately 36,000.

For the purposes of this WRPP the land administered by the LSC is herein referred to as the "Shire" (refer to **Figure 1.1**).

Photograph 1.1: Rosslyn Bay in the foreground and Yeppoon in the background: CQG 2010

Figure 1.1: Local Government Area



1.2. LSC Waste and Recycling Policies

LSC is committed to providing waste management services that meet the needs of the community in a safe, environmentally conscious, cost effective and innovative manner. LSC currently has the following waste related policies in place (Refer to **Appendix A):**

- Waste and recycling collection service policy;
- Waste and recycling community service obligation policy; and
- Waste charge remission policy.

1.3. Aim of the Plan

Key aims of this plan are:

- To assist LSC with meeting its legislative requirements in regards to waste management, including the *Waste Reduction and Recycling Act 2011* (Qld);
- To develop and maintain appropriate systems to:
  - collect the required waste information in a way that is simple yet meaningful and consistent;
  - collate information for forecasts in waste composition, waste generation, presentation rate, airspace consumption etc. and as a reference for future requests for information required by the service to indicate its performance;
  - benchmark the LSC waste reduction targets with other Queensland Councils;
  - commit to undertaking industry scanning in regards to technology and practices including alternative waste treatment (AWTs) so the service stays abreast of best practice in the industry;
  - consult appropriately with Councillors, Customers of the Service, LSC residents, commercial businesses, major industries and the local waste industry so as to design the Plan to deliver the requirements of the Livingstone Shire Council Corporate Plan – *"Provid*es waste management facilities and services that meet the community's needs"; and
  - identify actions to effectively monitor the financial processes of the service and to permit the development of prognostic budgets and pricing models in relation to waste management;
- To assist with budget planning and management;
- To define the issues that LSC must address for the Plan to meet its goals; and
- To set a clear direction for LSC waste management services to operate in a sustainable well-run framework meeting its customer's needs.

1.4. About the Waste Recycling and Reduction Plan

LSC is required to develop a Waste Recycling and Reduction Plan (WRRP) under the Act (refer to **Appendix B** for a summary of WRRP requirements). The primary purpose of developing the WRRP is to collate Councils' current waste management data and develop a clear and coordinated plan for moving forward that provides sustainable waste management for the Shire.

The WRRP has been prepared through review of regulatory requirements and collation of data and information, including both historical and future planning documents. Amalgamation and de-amalgamation in recent years has presented challenges in the collection of meaningful historic data due to the fact that the boundaries have changed in the process.

The WRRP covers LSC's waste current status, including available infrastructure, waste generation data and regional demographics:

- Waste forecasts for the future;
- Key Federal, State and Local Government drivers;
- Identification of stakeholders; and

- The plan for moving forward, including LSC's objectives and targets, available options, and action plan.

LSC's WRRP is consistent with Federal and State Government practices and follows the waste management hierarchy (**Figure 1.2**). This hierarchy identifies the preferred order of preference for managing waste not just within the Shire but also across Australia.

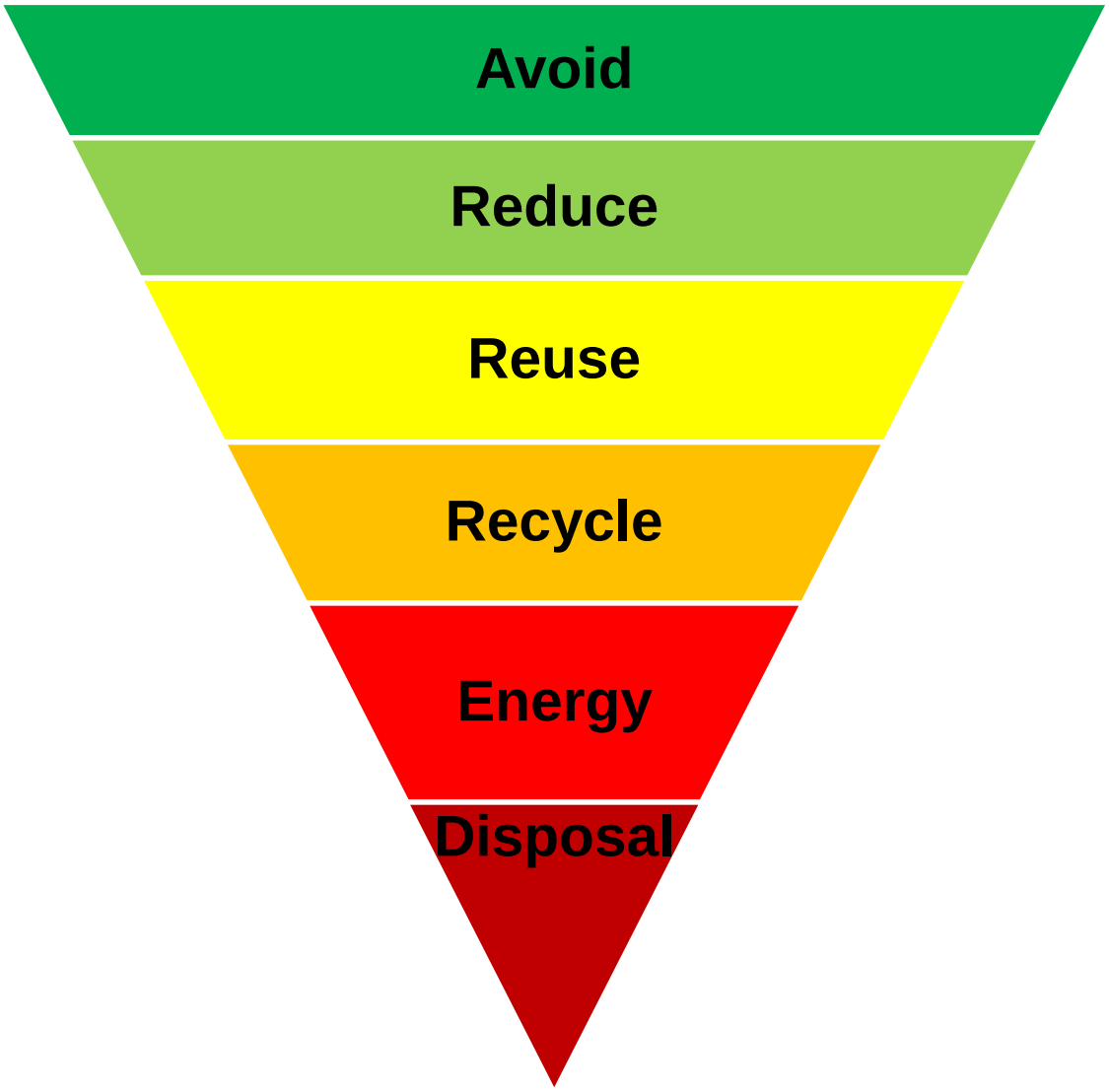


Figure 1.2: The waste management hierarchy

This WRRP will be reviewed every three years by Council to ensure it remains current and valid, and that the plan for moving forward is being followed.

2. Where are we today?

LSC faces various challenges in the management of waste and in planning for future waste operations and infrastructure. With limited landfill space, LSC's focus is on improving recycling levels and increasing landfill diversion rates, along with raising public and commercial sector awareness in regards for the need to and the benefits of improving waste management, specifically waste avoidance, reuse, reduction and recycling.

2.1. Region's socio-demographic profile

A study of historical and predicted demographic activity helps to explain patterns in waste generation as well as to assist with planning for the future through predicting future trends based on current information.

Table 2.1 lists the population and socio-economic index data for the Shire.

Table 2.1: Population and demographic profile and forecasts for the Shire

	Year (at 30 June)	Population	Estimated Households (total private dwellings)
Historic	**2001**	26,575[1]	11,428[1]
	2004	28,159[2]	11,950[3]
	2006	29,932[3]	12,271
	2009	32,474[2]	12,832[3]
Baseline	**2014**	36,378[2]	13,619[3]
Forecast	**2016**	39,377[2]	13,823[3]
	2021	44,072[2]	14,031[3]
	2026	49,824[2]	14,241[3]

[1.] Source: Australian Bureau of Statistics - 2001 Census data

[2.] Queensland Government Statisticians Office

[3.] Estimate only, calculated based on 2001 and 2006 census data, and data from the Qld Government Statisticians Office

2.2. Industrial and commercial profile

Livingstone is a Shire known for its scenic coastline and hosting of numerous tourists every year. The Shire acts as the gateway to several island destinations such as Great Keppel. In turn the tourism industry helps promote other local businesses such as retail, accommodation and hospitality.

Industrial activities in the Shire include the abattoir, workshops and fabrication businesses and light industrial activities.

Away from the coast, agriculture including horticulture, timber plantations and beef cattle grazing is a prominent industry within LSC.

2.3. Waste collection, recovery and disposal systems

LSC manages the collection and disposal of waste for both the public and commercial sector, as well as waste generated by its own activities. Kerbside collection of general waste and recycling is provided for residents and some businesses and the Yeppoon Landfill, waste transfer stations (WTS), bin stations and recycling drop off points are provided for the self-haul and drop-off of waste.

Recycling waste recovery facilities are provided at both the Landfill and WTS sites to allow for the diversion of waste from landfill. This waste, along with recycling collected through kerbside collection, is taken to the material recovery facility (MRF) in Rockhampton for recycling.

LSC collates data collected at each waste facility to identify household, commercial and industrial (C&I) and construction and demolition (C&D) waste streams. Data is reviewed regularly to measure performance rates, calculate landfill lifetime and highlight areas for improvement.

2.3.1. Household waste (Municipal Solid Waste - MSW) systems

LSC provides kerbside waste collection in 41 different suburbs within the Shire. Properties in these collection areas are provided with a 240 litre general waste bin and 240 litre recycling waste bin. General waste bins are used for the disposal of domestic non-hazardous wastes such as food scraps, packaging and small items (i.e. anything non-hazardous and non-recyclable). Recycling bins are used for aluminium and steel cans, paper, cardboard, glass and recyclable plastics.

General waste kerbside collection is provided on a weekly basis and recycling waste collection is provided fortnightly. All kerbside general waste is taken to Yeppoon Landfill for disposal while kerbside recycling is taken to the MRF in Rockhampton for processing. Approximately 11,790 general waste bins and the same number of recycling bins were collected in the 2014-15 financial year. See **Table 2.2** for a summary of kerbside waste collection services in LSC.

Table 2.2: Household waste collection service LSC– Kerbside 2014-15

Service	House-holds Served	Bins serviced	Container (type and size)	Collection Frequency	Operator	Method	Facilities
General Waste	~12,140	~11,790	One 240 litre mobile bin	Weekly	Contractor	Burial in main face of landfill	Yeppoon Landfill
Recycling	~12,140	~11,790	One 240 litre mobile bin	Fortnightly	Contractor	Sorted and recycled	MRF
Source: LSC, 2015							

In addition to kerbside collection, households can also self-haul their general waste to the Yeppoon Landfill, or to various WTS and bin stations in the Shire. They can also drop off their recyclable or recoverable waste to recycling collection points at the Yeppoon Landfill, any WTS, or at recycling drop off points in Farnborough and Nerimbera. LSC provides free disposal to residential and small commercial for separated recyclable materials. This encourages the public to remove recyclable items from their waste before disposal, thus diverting waste from the Landfill. Refer to **Table 2.3** for further details on drop off/self-haul services.

Table 2.3: Household waste disposal services – Drop off/Self-haul

Service	Materials Accepted[1]	Operator	Management Method	Number of locations and facilities[1]
Self-haul (General Waste)	Asbestos (special burial only) Clean soil Deceased animals General domestic waste Waste from renovations (exc. Paint)	**LSC**	Burial in main face of landfill	Nine (two bin stations, six waste transfer stations and one landfill)
Drop off (Recyclables)	Co-mingled recycling, including: • Aluminium & steel cans; • Paper and cardboard; • Plastics; and • Glass. Electrical goods EPIRBS & Flares Gas bottles Green waste Light metals Concrete Mobile phones Oils Printer cartridges Tyres	**LSC**	Sorted and recycled	One landfills, six waste transfer stations and two recycling drop off points

1. Not all waste streams are accepted at all sites. Refer to **Section 2.3.4** for further details on locations and infrastructure available.

Source: LSC, 2015

2.3.2. Commercial and Industrial waste systems

LSC provides kerbside collection of general waste and fortnightly kerbside collection of co-mingled recycling for some commercial businesses and industries. In 2014/15 there were 296 businesses serviced for general waste, and 270 serviced for recycling. Number of services varies depending on the site. See **Table 2.4** for a summary of commercial and industrial (C&I) kerbside collection services.

Kerbside collection for commercial customers is provided on a fee basis and customers have the option to increase their fees for increased collections or additional bins. As per public kerbside collection, commercial customers are provided with 240 litre bins for general waste and recycling. Collection of bulk waste, such as in skips, is not provided. These waste generators are required to manage their own waste, generally by engaging a waste management contractor to regularly collect these skips and arrange disposal at landfill.

Table 2.4: C&I waste collection service LSC– Kerbside 2014-15

Service	Businesses Served	Container (type and size)	Collection Frequency	Operator	Method	Facilities (including bulking and final destinations)
General Waste	296	240 litre mobile bin (number varies)	Varies	Contractor	Burial in main face of landfill	Yeppoon Landfill
Recycling	270	240 litre mobile bin (number varies)	Varies	Contractor	Sorted and recycled	MRF
Source: LSC, 2015						

Commercial waste (including recyclable waste) is only accepted at Yeppoon Landfill. C&I customers are not permitted to use roadside bin stations or WTS sites. With the exception of recyclable (drop off) wastes, any waste from a commercial sources (e.g. general waste, green waste, bulk packaging etc.) must be taken to the Yeppoon Landfill. Refer to **Table 2.5** for further details on drop off/self-haul services.

Table 2.5: Commercial and Industrial waste disposal services – Drop off/Self-haul

Service	Materials Accepted[1]	Operator	Management Method	Number of locations and facilities[1]
Self-haul (General Waste)	Commercial and industrial waste, including: • Asbestos (special burial only); • Clean soil; • Deceased animals; • Bulk plastic packaging; • General domestic waste.	**LSC**	Burial in main face of landfill	One (Yeppoon Landfill – bin stations and WTS for domestic use only)
Drop off (Recyclables)	Co-mingled recycling, including: • Aluminium & steel cans; • Paper and cardboard; • Plastics; • Scrap steel; • Glass	**LSC**	Sorted and recycled	One landfill or Direct to MRF
[1] Not all waste streams are accepted at all sites. Refer to **Section 2.3.4** for further details on locations and infrastructure available. Source: LSC, 2015				

2.3.3. Construction and demolition waste systems

According to the *Waste Reduction and Recycling Regulation (2011) (Qld)* construction and demolition (C&D) waste means:

a) Waste generated as a result of carrying out building work within the meaning of the *Building Act,1975 (Qld)*, section 5; and

b) Without limiting the above paragraph (a), includes waste generated by building, repairing, altering or demolishing infrastructure for roads, bridges, tunnels, sewage, water, electricity, telecommunications, airports, docks or rail.

Generally C&D consists of a mixture of benign wastes such as timber, plasterboard, concrete, bricks and other materials used in construction and demolition. It is preferable to LSC that the materials be separated, as certain wastes can either be reused (e.g. concrete and bricks) or recycled (e.g. scrap metals and plastics)

LSC does not accept C&D waste in kerbside collection and does not offer collection services for C&D waste. Waste generators are required to manage their own waste, either by self-hauling or arranging for a licenced waste transporter for delivery to the Yeppoon Landfill for disposal. Refer to **Table 2.6** for a summary of services provided by LSC for C&D waste management.

Table 2.6: Construction and Demolition waste disposal services – Drop off/Self-haul

Service	Materials Accepted[1]	Operator	Management Method	Number of locations and facilities[1]
Self-haul (General Waste)	Mixed or separated construction and demolition waste including: • Asbestos (special burial only); • Bricks; • Clean fill; • Dried paint cans; • Gravel; • Timber; • Plastic (e.g. PVC pipes); • Metals; • Glass.	**LSC**	Burial in main face of landfill.	One (Yeppoon Landfill – bin stations and WTS for domestic use only)
Drop off (Recyclables)	Separated recyclable material, including: • Light metals; • Concrete • Aluminium & steel cans; • Paper and cardboard; • Plastics; • Glass.	**LSC**	Sorted and recycled	One landfill or Direct to MRF (by contractor)

[1] Not all waste streams are accepted at all sites. Refer to **Section 2.3.4** for further details on locations and infrastructure available.

Source: LSC, 2015

2.3.4. Waste Infrastructure

LSC operates and maintains several different waste facilities (see **Figure 2.1**), including:

- Two recycling drop off points;
- Two bin stations;
- Six waste transfer stations; and
- One landfill.

The purposes of these facilities (refer to **Table 2.7** for more detail) vary from drop off points for waste handover (recycling drop off points, roadside bin stations, WTS), to disposal locations (Yeppoon Landfill). In some cases these sites serve dual purposes.

LSC also sends recyclables to the Central Queensland Materials Recycling Facility (CQMRF) in Parkhurst, Rockhampton for processing of co-mingled recycling wastes.

2.3.5. Recycling drop off points

LSC's recycling drop off points are two unmanned bin stations located in Farnborough and Nerimbera (refer to **Table 2.7** and **Figure 2.1** for locations). The purpose of the two sites is to provide residents in these areas with access to domestic recycling services. Currently the Farnborough site contains four 4.5 cubic metre bulk bins, and the Nerimbera site consists of 14 360 litre bins. Both sites are serviced weekly.

As the sites are unmanned, contamination of waste and abuse of the service is an issue that is costly to Council. If contaminant material (e.g. anything from general waste to hazardous material) is not removed from the bulk bin, the entire truckload can become contaminated upon collection, causing the load to be re-directed to landfill. There are no fees associated with these drop off points.

2.3.6. Bin stations

LSC currently provides bin stations on Great Keppel Island (GKI) and the township of Ogmore (refer to **Table 2.7** and **Figure 2.1** for locations). Bin stations are designated for general domestic waste only) and are currently serviced on a weekly basis. No fees are charged for the use of these bins.

The GKI site is managed by an onsite contractor with transport to the Landfill via ferry and trucks. The Ogmore site is unmanned.

2.3.7. Waste Transfer Stations (WTS)

A WTS acts as a drop off point for waste in areas where travel to a landfill is not cost effective. Unlike a bin station, a WTS allows for the storage and accumulation of waste materials to the point where transport becomes more practical and economically feasible. Furthermore, a WTS provides facilities for the drop off of recyclable wastes, contributing towards increased landfill diversion.

Currently LSC operates six WTS sites throughout the Shire (see **Table 2.7** and **Figure 2.1** for locations). With the exception of Stanage Bay, which only takes general waste and light metals, all other sites accept:

- General domestic waste, taken to Yeppoon Landfill for disposal;
- Greenwaste, (mulched at Yeppoon and Emu Park) and provided to the public or commercial customers; and
- Various recyclables, taken off site to various recycling facilities.

Hours of operation vary between sites. Refer to **Table 2.7** for each site's operating hours, locations and a list of accepted wastes.

Table 2.7: Waste management facilities in LSC Shire

Facility Type	Name	Location	Type of Material	Operating Hours
Recycling drop off point	Farnborough	North of Farnborough Store, Farnborough	Co-mingled recycling	All times (unmanned)
	Nerimbera	Graff Road, Nerimbera	Co-mingled recycling	All times (unmanned)
Bin station	Great Keppel Island	Fisherman's Beach, Great Keppel Island	General domestic waste	All times (unmanned)
	Ogmore	Ogmore Road and Carbon Street, Ogmore	General domestic waste Greenwaste Light metals	All times (unmanned)
Waste Transfer Station	Byfield	1914 Byfield Road, Byfield	Batteries (Lead Acid) Co-mingled Recycling General domestic waste Light metals Tyres Waste oils and filters	Tuesday/Thursday 2.30pm – 5.30pm Saturday 9.00am – 12.00pm
	Cawarral	Corner of Cawarral Road and Botos Road, Cawarral	Batteries (Lead Acid) Co-mingled Recycling General domestic waste Green waste Light metals Tyres Waste oils and filters	Wednesday 2.30pm – 5.30pm Saturday/Sunday 9.00am – 3.00pm
	Emu Park	Scenic Highway, Emu Park	Batteries (Lead Acid) Co-mingled Recycling General domestic waste Green waste Light metals Tyres Waste oils and filters	Monday - Friday 2.30pm – 5.30pm Saturday/Sunday 10.30am – 5.30pm

Facility Type	Name	Location	Type of Material	Operating Hours
	Marlborough	Glenprarie Road Marlborough	Batteries (Lead Acid) General domestic waste Green waste Light metals Tyres Waste oils and filters	Saturday 9.00am – 3.00pm
	The Caves	Rossmoya Road, The Caves	Batteries (Lead Acid) Co-mingled Recycling General domestic waste Green waste Light metals Tyres Waste oils and filters	Seven days a week 2.30pm – 5.30pm
	Stanage Bay	King Street, Stanage Bay	General domestic waste Light metals	All times (Unmanned)
Landfill	Yeppoon Landfill	2745 Yeppoon Road, Barmaryee	**Disposed of/reused on site:** • Asbestos; • Clean soil; • Commercial and Industrial Waste; • Concrete; • Construction and Demolition waste; • Deceased animals; and • General domestic waste. **Recycled/treated off site:** • Batteries (Lead Acid); • Cardboard; • Co-mingled recycling; • Electrical goods; • EPIRBS; • Flares;	Seven days a week 7.00am -5.30pm

Facility Type	Name	Location	Type of Material	Operating Hours
			• Gas bottles; • Green waste; • Light metals; • Mobile phones; • Oils; • Printer cartridges; • Tyres.	
Material Recovery Facility	CQMRF	Wade St, Parkhurst,	Co-mingled recycling, including: • Aluminium cans; • Paper and cardboard; • Plastics; and • Glass.	No public drop off received. Kerbside collection from Councils and commercial recycling only. Not managed or operated by LSC.
Source: LSC, 2015				

Figure 2.1: Waste Facilities in LSC

2.3.8. Materials Recovery Facility (MRF)

A MRF was constructed in 2010 in partnership between RRC (prior to LSC's de-amalgamation), Gladstone Regional Council (GRC), Isaac Regional Council (IRC) and Central Highlands Regional Council (CHC). Each Council has a contract with the MRF provider, Orora. The facility receives kerbside co-mingled recycling from the five aforementioned Councils. Currently, contamination rates at the MRF stand at over 20%. This is the result of a combination of non-recyclable waste (e.g. plastic bags, nappies, green waste, food scraps, wrapping, general waste and oils etc.) placed in the bins and recyclables being insufficiently cleaned prior to disposal. Contaminated recyclable waste is baled by the MRF and sent to RRC's Lakes Creek landfill for disposal.

This facility was opened in 2010 and sorts and packages paper, plastics, cans and glass materials for offsite processing (see **Photograph 2.1**).

Photograph 2.1: CQMRF processing (Source The Morning Bulletin)

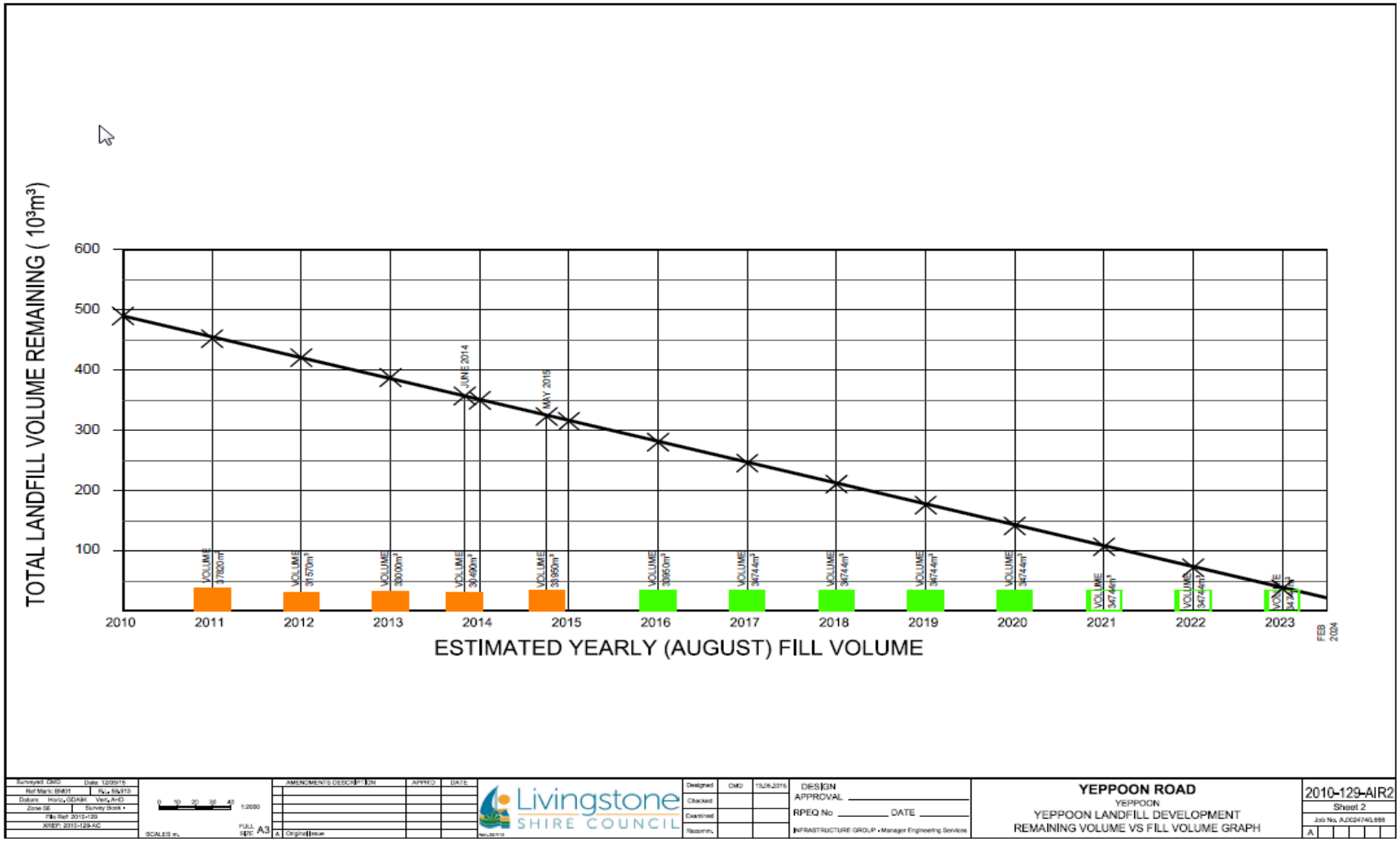
2.3.9. Landfills

Yeppoon Landfill is currently LSC's only landfill. The site operates under the Department of Environment and Heritage Protection's (EHP's) Environmental Authority (EA) EPPR01823714. The Landfill is licenced to accept up to 20,000 tonnes per annum of general waste, with some regulated waste also permitted. This tonnage was exceeded in 2014/2015, possibly due to Tropical Cyclone Marcia.

The Site accepts municipal solid waste (MSW), C&I, C&D and certain regulated wastes (asbestos and sewage biosolids) for burial as well as providing facilities for the drop off of recyclable materials. This allows LSC to divert material from the Landfill by providing customers with bins and drop off facilities for recyclable materials such as light metals, oils, cardboard, co-mingled recyclables, batteries and electrical goods prior to the main face.

LSC also provides for the reuse of certain wastes. Greenwaste material is mulched under contract and made available to the public. Biosolids are currently stored on site before being transported to an off-site processing facility. Concrete is crushed under contract by a mobile unit and reused at LSC facilities as road base. Council's gatehouse contractor operates the tip shop where salvaged goods are resold. The gatehouse contractor also coordinates the stockpiling and sale of scrap metal. The current landfill cell is expected to reach capacity in 2024(see **Figure 2.2**). There is space available on the landfill site for the construction of new cells. With improved landfill diversion and recycling rates anticipated as a result of this WRRP, the lifetime of the Yeppoon Landfill should be extended even further.

Figure 2.2: Yeppoon Landfill remaining airspace



2.4. Waste Generation

Waste is generated from households (MSW), commercial and industrial (C&I), construction and demolition (C&D) activities and LSC's own activities. With future population trends predicted to increase, waste generation will also increase in the Shire. This section describes current waste generation data from each waste stream. As LSC deamalgamated from RRC in 2014, waste data is not available for the Shire prior to this date.

2.4.1. Household waste generation

A breakdown of the household waste generated in the LSC Shire, as recorded by LSC, is provided in **Table 2.8** to **Table 2.10**.

Table 2.8: Approximate household waste generation by collection system

Year	Kerbside Residual (general waste)[2]	Kerbside Recycling (total)[3]	Self-haul disposal[4]	Drop-off recycling	Total Household Waste Generated
2014/2015[1]	8,523t	2,005t	7,538t	1,325t	19,391t

[1.] Data unavailable prior to the 2014 de-amalgamation
[2.] LSC Estimate 2.5% of kerbside collections (general and recycling) to be commercial waste. This has been excluded.
[3.] LSC Estimated 2.5% Commercial recycling excluded from result.
[4.] Household self-haul waste includes general household waste (MSW) and green waste.
Source: LSC, 2015

Table 2.9: Approximate household waste generation trends

Year	Total Household Waste Generated	% Change from Previous Year	Population	No. of House-holds	Tonnes per Capita/ year	Tonnes per household/ year
2014/2015[1]	19,391t	NA	36,378	13,619	0.53t	1.42t

Note:
[1.] Data unavailable prior to the 2014 de-amalgamation

Table 2.10: Approximate household waste by management method LSC

Year	Tonnes Recycled[2]	Tonnes to Reuse[3]	Tonnes to Landfill	% Recycled	% Diverted from Landfill
2014/2015[1]	3,330t	3834t	12,227t	17%	36.9%

Note:
[1.] Data unavailable prior to the 2014 de-amalgamation.
[2] Includes kerbside recyclables and light metals drop-off.
[3] Green waste material – mulched and provided to LSC, commercial and public for reuse
Source: LSC, 2015

Under the *Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024)* (see **Appendix C)** a MSW recycling and recovery target of 45% has been set for regional

centres. As of 2014/15 LSC's approximate diversion rate for MSW is 36.9% which indicates the likely achievement of the 45% target.

2.4.2. Commercial and industrial waste

A breakdown of commercial and industrial waste generation in the Shire is outlined in **Table 2.11.**

Table 2.11: Approximate commercial and industrial waste by management method LSC

Year	Tonnes Recycled[2]	Tonnes to Reuse	Tonnes to Landfill[3]	% Recycled	% Diverted from Landfill
2014/15[1]	355.4t	183t	8,338t	4.1%	6.2%

Note:
[1.] Data unavailable prior to the 2014 de-amalgamation.
[2.] Commercial kerbside collection only. Data based on an estimate of 2.5% of total kerbside recycling.
Source: LSC, 2015

Currently LSC's recycling and recovery rate is approximately 6.2%, below the 55% target set by the Queensland Government in the *Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024)*. These figures are considered to be approximate only and LSC will action improved data collation over the next few years in order to calculate an accurate baseline level for forecasting and measuring the success of the WRRP.

2.4.3. Construction and demolition waste generation

A breakdown of construction and demolition waste in the Shire is provided in **Table 2.12**.

Table 2.12: Approximate construction and demolition waste by management method

Year	Tonnes Recycled	Tonnes to Reuse[2]	Tonnes to Landfill	% Recycled	% Diverted from Landfill
2013/2014[1]	0t	209t	3022t	0%	6.5%

Note:
[1.] Data unavailable prior to the 2014 de-amalgamation
[2.] Crushed concrete material reused on site at Yeppoon Landfill.
Source: LSC, 2015

The Queensland Government set a recycling and recovery target of 80% by 2024 for C&D waste in the *Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024)*. LSC's recycling and recovery rate for C&D waste currently sits at approximately 6.5%. LSC will review and improve data collation of the next few years to provide accurate C&D waste data for forecasting and measuring implementation of the WRRP.

As C&D waste generally consists of a mix of bulk wastes that are largely recyclable or recoverable such as concrete, bricks, timber, light metals, plastics and cardboard, LSC are confident an increase to 80% recovery and recycling from C&D waste is achievable.

2.4.4. Summary of waste generated by the local government carrying out its activities

A summary of waste generated by LSC's own activities is provided in **Table 2.13**. This data is approximate and only includes wastes processed by the Landfill. For example, green waste generated by parks will often be processed into mulch and reused and is unable to be

recorded. Kerbside collection of general waste and recycling waste from LSC facilities is recorded under MSW waste.

Table 2.13: Approximate waste generated by LSC activities

Year	Tonnes Recycled[2]	Tonnes to Reuse[3]	Tonnes to Landfill	% Recycled	% Diverted from Landfill
2014/2015[1]	931t	1711t	915t	26.2%	74.3%

Note:
1. Data unavailable prior to the 2014 de-amalgamation
2. Biosolids – sent to commercial compost facility
3. Crushed concrete Material reused on site at Yeppoon Landfill.
Source: LSC, 2015

Waste generated by LSC's own activities varies depending on the Council department. **Table 2.14** provides a summary of the most common wastes generated by LSC's activities**.** LSC's departments undertake a range of measures to prevent, reduce, reuse and recycle the waste they generate.

Table 2.14: Example wastes generated by LSC activities

	General Waste	C&D Waste	Recycling	Green Waste	Other Wastes
Offices	✓		✓		
Workshops/Depots	✓		✓		✓
Parks	✓			✓	
Civil/Infrastructure Works		✓		✓	✓
Water and Sewage					✓
Community services	✓			✓	

2.4.5. Summary of local government area waste generation

Table 2.15 summarises the total waste generated in the LSC during the 2014/2015 financial year, broken down into the MSW, C&I and C&D waste streams.

Table 2.15: Approximate total waste generated in LSC in 2014/15

Waste Type	Tonnes Recycled	Tonnes to Reuse	Tonnes to Landfill	% Recycled	% Diverted from Landfill
MSW	3,330t	3834t	12,227t	17%	36.9%
C&I	355t	183t	8338t	4.1%	6.2%
C&D	0t	209t	3022t	0%	6.5%
LSC Activities	931t	1711t	915t	26.2%	74.3%

Total	**4,616t**	**5,937t**	**24,502t**	**13%**	**30.1%**
Source: LSC, 2015					

2.5. Waste Forecasting

Based on levels of anticipated population growth in the Shire, and proposed commercial and industrial developments, including the construction required to develop these, LSC anticipates that waste generation will increase. Implementation of this plan however, particularly the public education and awareness programs should assist in reducing the volumes of waste generated per capita.

With limited background waste data LSC is currently unable to calculate accurate waste forecasts.

As part of this WRRP, LSC will action the collation of waste data over the next two years in order to develop accurate waste forecasts.

3. Key drivers and policy context

Federal and State Government strategies, policies and legislation are intended to provide a clear framework for Councils and the private sector in regards to the management of waste. These drivers and policies have been considered in the development of this WRRP and for context are described below.

3.1. National Policies and Legislation

The Federal Government has limited powers to directly influence domestic waste management. Its role is more in relation to the development of national policies, the establishment of consistent national directives for key product groups and interaction on a global front on international waste management issues such as hazardous waste movements.

Interaction between the Department of the Environment (DoE) and other jurisdictions on waste matters is the Environment Protection and Heritage Council (EPHC).

There are a number of national policies and guidelines relating to waste management, the key ones that have influenced the Plan are listed below and described in **Table 3.1**:

- Australia's National Waste Policy 2009;
- Clean Energy Future Legislation;
- *National Environment Protection Council Act ,1994* (Cwth);
- *National Greenhouse and Energy Reporting Act, 2007* (Cwth);
- *Product Stewardship (Oil) Act ,2000* (Cwth); and
- *Product Stewardship Act, 2011* (Cwth).

Table 3.1: Summary of National Policies and Legislation

Legislation	Administering Authority	Summary
Australia's National Waste Policy, 2009 (Cwth)	DoE	The 'National Waste Policy: Less Waste, More Resources 2009' provides a framework and direction for Australia's waste management and resource recovery from 2010 to 2020. It sets six key directions under which priority strategies have been developed, as follows: 1. **Taking responsibility** - shared responsibility for reducing the environmental, health and safety footprint of products and materials across the manufacture-supply-consumption chain and at end-of-life; 2. **Improving the market** - efficient and effective Australian markets operate for waste and recovered resources, with local technology and innovation being sought after internationally; 3. **Pursuing sustainability** - less waste and improved use of waste to achieve broader environmental, social and economic benefits; 4. **Reducing hazard and risk** - reduction of potentially hazardous content of wastes with consistent, safe and accountable waste recovery, handling and disposal; 5. **Tailoring solutions** - increased capacity in regional, remote and Indigenous communities to manage waste and recover and re-use resources; and 6. **Providing the evidence** - access by decision makers to meaningful, accurate and current national waste and resource recovery data and information to measure progress and educate and inform the behaviour and the choices of the community.

Legislation	Administering Authority	Summary
Clean Energy Future Legislation	Department of Climate Change and Energy Efficiency (DCCEE)	On 1 July 2012, the Australian Government introduced the Carbon Price Mechanism (CPM), administered by the Clean Energy Regulator (CER). Under the CPM, an entity that trips a specified threshold for CO_2-equivalent emissions is liable to pay for each tonne of CO_2-e emitted. At the end of each financial year, a liable entity must either produce carbon credits or purchase carbon permits to cover its emissions. From 2012 to 2015, the cost of carbon permits was fixed at 23 dollars per tonne of CO_2 equivalent; from 2015, a flexible emissions trading scheme will be in effect. Under the CPM, landfills that emit more than 25,000 tonnes of CO_2-e are liable. Landfills with gas capture systems may also be eligible to create Australian Carbon Credit Units (ACCUs) under the Government's Carbon Farming Initiative. ACCUs can be used to offset 100 percent of a landfill's CPM liability.
National Environment Protection Council Act, 1994 (Cwth)	National Environment Protection Council (NEPC)	National Environment Protection Measures (NEPMs) are made under this legislation and corresponding legislation in other Australian jurisdictions. NEPMs are a special set of national objectives designed to assist in protecting or managing particular aspects of the environment. NEPMs can be made for a variety of environmental matters as prescribed by the *National Environment Protection Council Act, 1994 (Cwth).* The two key NEPMs relating to waste management are: • **Movement of controlled waste between States and Territories** - NEPM assists in achieving the desired environmental outcomes by providing a basis for ensuring that controlled wastes which are to be moved between States and Territories are properly identified, transported, and otherwise handled in ways which are consistent with environmentally sound practices for the management of those wastes; and • **Used Packaging Materials** - NEPM to reduce environmental degradation arising from the disposal of used packaging and conserve virgin materials through the encouragement of reuse and recycling of used packaging materials by supporting and complementing voluntary strategies in the Australian Packaging Covenant.

Legislation	Administering Authority	Summary
National Greenhouse and Energy Reporting Act ,2007 (Cwth)	DoE	Introduced a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified under the legislation.
Product Stewardship (Oil) Act, 2000 (Cwth)	DoE	Establishes the general framework and benefit entitlements of the product stewardship for Oil Program arrangements.
Product Stewardship Act, 2011(Cwth)	DoE	Provides the framework to effectively manage the environmental, health and safety impacts of products and in particular those impacts associated with the disposal of products. The framework includes voluntary, co regulatory and mandatory product stewardship.

3.2. State Policy and Legislation

This plan is a legislative requirement under the Waste Reduction and Recycling Act 2011 (Qld). Local governments are obligated under this act to prepare a WRRP that sets out the needs of their regions in relation to managing waste whilst achieving the objectives of the Act.

In addition the following Queensland legislation and policy are relevant references for the development of this Plan:

- *Environmental Protection Act, 1994 (Qld);*
- *Environmental Protection Regulation, 2008 (Qld);*
- *Environmental Protection Act, 1994 (Qld);*
- *Environmental Protection (Waste Management) Policy, 2000 (Qld);*
- *Environmental Protection (Waste Management) Regulation 2000 (Qld);*
- *Waste Reduction and Recycling Regulation, 2011(Qld); and*
- *Queensland Waste Avoidance and Resource Productivity Strategy 2014 – 2024.*

A brief summary of these legislation and policies is provided in **Table 3.2**.

The Queensland Plan (State of Queensland, 2014), while not a piece of legislation, is the Queensland State Government's manifesto for development in the State. Consultation undertaken by Government as part of that plan highlighted that waste management is a key priority to be addressed by reducing our waste generation rates in which the Queensland Waste Avoidance and Resource Productivity Strategy is vital to achieving this goal. This WRRP has been developed in alignment with the Queensland Waste Avoidance and Resource Productivity Strategy.

3.2.1. Environmental Protection (Waste Management) Regulation 2000

The *Environmental Protection (Waste Management) Regulation, 2000 (Qld)* is subordinate to the *Environmental Protection Act, 1994 (Qld)* implementing additional waste management legislation, cost and consequences for both the public and private sectors to protect environmental values, ensure health and safety, increase efficient resource use and avoid clean-up cost burdens (refer to **Table 3.2).**

Table 3.2: Summary of State Waste Policy and Legislation

Legislation	Administering Authority	Summary
Environmental Protection Act 1994	EHP	*Environmental Protection Act, 1994 (Qld)* is the key legislative framework for environmental management, including waste management in Queensland. Subordinate environmental protection policies exist for air, water, noise and waste. Landfills operate under environmental authorities (EA) issued by EHP under this act. The Act requires that EHP is notified within a specified period of time if someone becomes aware of a notifiable activity taking place on a parcel of land. Consideration is then given as to whether the land is listed on the Environmental Management Register (EMR) or Contaminated Land Register (CLR). Landfilling is a notifiable activity *20 Landfill—disposing of waste (excluding inert construction and demolition waste).* Under the Act a Local Government is also responsible for reporting to the EHP within 22 business days if an activity could have caused land to become contaminated. This could occur at WTS and bin stations e.g. spillage of liquid, storage of batteries, leaching from solid stockpiles etc. if materials not stored within bins or containers. Special provisions for transport of hazardous materials interstate are prescribed in the Act which may be of relevance for transport of materials offsite to another disposal destination – though this would typically be the responsibility of the waste generator and not Council.
Environmental Protection Regulation 2008	EHP	Chapter 5A of the *Environmental Protection Regulation 20*08 (Qld) regulates waste management by Local Governments including storage, removal (servicing premises) and treatment of various waste types.
Environment Protection (Waste Management) Regulation, 2000 (Qld)	EHP	The regulation provides for: • Offences relating to littering, illegal dumping and unlawful activities at waste facilities; • Waste tracking; • Management of clinical and related waste; • Management of polychlorinated biphenyls (PCBs); • Approval processes for the beneficial re-use of a resource (waste); • Design rules for waste equipment; and • Enforcement and compliance with the National Environment Protection (Used packaging materials) Measure.

Legislation	Administering Authority	Summary
Environmental Protection (Waste Management) Policy 2000 (Qld)	Queensland Government	Provides strategic framework for managing waste in Queensland and outlines the preferred waste management hierarchy and principles for achieving good waste management. The principles for achieving good waste management are: • The polluter-pays principle — all costs associated with waste management should, where possible, be borne by the waste generator; • The user-pays principle — all costs associated with the use of a resource should, where possible, be included in the price of goods and services developed from that resource; and • The product stewardship principle — the producer or importer of a product should take all reasonable steps to minimise environmental harm from the production, use and disposal of the product.
Local Government Act 1999 (Qld)	Department of Local Government (DLG)	LSC has a statutory objective to be commercially successful in carrying out its activities, and to be efficient and effective in the provision of goods and delivery of its services including tasks carried out as community service obligations.
Waste Reduction and Recycling Act (2011) (Qld)	EHP	This act requires Councils to prepare waste reduction and recycling plans. The objectives of the *Waste Reduction and Recycling Act 2011 (WRR Act*) are: • To promote waste avoidance and reduction, resource recovery and efficiency actions; • To reduce the consumption of natural resources and minimise the disposal of waste by encouraging waste avoidance and the recovery, re-use and recycling of waste; • To minimise the overall impact of waste generation and disposal; • To ensure a shared responsibility between government, business and industry and the community in waste management and resource recovery; • To support and implement national frameworks, objectives and priorities for waste; and • Management and resource recovery.

Legislation	Administering Authority	Summary
		Key provisions of WRR Act include: • A requirement for State Government and Local Governments to prepare waste management plans; • Product stewardship arrangements for waste products that are identified as a growing problem for landfilling in the future; and • Increasing the pressure on penalty imposition and reporting of littering and illegal dumping.
Waste Reduction and Recycling Regulation 2001 (Qld)	EHP	This regulation provides the detail regarding the above act with provisions for: • Application fees under the WRR Act; • Management of used packaging materials; and • Specifics about waste management planning and reporting.
Waste Avoidance and Resource Productivity Strategy 2014 – 2024	Queensland Government	Replaces the *Queensland Waste Reduction and Recycling Strategy 2010-2020.* Provides high-level direction for waste management and resource recovery in Queensland broadly focusing on waste from all sectors to achieve the strategies targets by 2024. The vision for this strategy is for Queensland to become a national leader in avoiding unnecessary consumption and waste generation by adopting innovative resource recovery approaches and managing all products and materials as valuable and finite resources. The strategy incorporates five key principles and four key objectives: Principles 1. Protecting human health and the environment to secure our future prosperity; 2. Sharing responsibility for avoiding unnecessary consumption and improving resource management; 3. Recognising the economic environmental and social costs of waste generation and disposal; 4. Recognising regional differences and opportunities; and 5. Full lifecycle management of resources.

Legislation	Administering Authority	Summary
		Objectives 1. Driving cultural change; 2. Avoidance and minimisation; 3. Reuse, recovery and recycling; and 4. Management, treatment and disposal. The Strategy was established to guide the review of the previous *Queensland's Waste Reduction and Recycling Strategy 2010-2020* and develop the new 2014-2024 Strategy and has been designed to align with, complement and support *The Queensland Plan* (Queensland's shared 30-year vision for growth and prosperity).
Workplace Health and Safety Act (Qld)		Outlines LSC's duties and responsibilities with regards to managing risk to its employees, contractors and the public.

3.3. Local drivers and policies

LSC's Corporate Plan 2014 -2019 was developed through consultation with the community between July 2013 and April 2014. The plan was developed using the community's input as a framework and strategic direction for the Shire. The strategies outlined within the plan will be implemented annually through LSC's Council Operational Plans and Budgets.

A key component of the Corporate Plan 2014 – 2019 is the focus on protection of the environment and appropriate waste management. Key strategies that will link closely with the WRRP are detailed in **Table 3.3**.

Table 3.3: Corporate Plan 2014 – 2019 strategies

Strategy	Performance indicator
EN3: *Minimise impact on the natural environment through effective waste management and pollution control policies and programs*	*A comprehensive waste management strategy is compiled and implemented and an appropriate suite of pollution control plans, policies and programs is adopted and implemented.*
EC4: *Establish initiatives including partnerships with both government and the private sector to create enterprises and undertake projects that generate jobs, wealth creation opportunities and sustainable economic growth.*	*A growing number of collaborative private and public sector enterprise creation and development projects are observable.*
AM4: *Operate, maintain and use Council assets to deliver efficient and cost effective services to the community*	*The operation, maintenance and use of Council assets is regularly measured, monitored and reported on to demonstrate cost effective outcomes.*

LSC's policies related to waste management include:

- *Waste and Recycling Collection Service Policy* – which details LSC's commitment to provide domestic and commercial waste collection to all designated area, in a manner that is cost effective, innovative and incorporates strategic and environmentally responsible waste management practices;
- *Waste and Recycling Community Service Obligation Policy* – which ensures a fair, equitable and transparent framework for the provision of free or concessional waste management services; and
- *Waste Charge Remission Policy* – which establishes that LSC will provide waste charge remissions for eligible multi-residential unit developments that cannot be serviced by LSC.

Each policy is committed to ensuring frameworks and systems are in place to ensure the LSC community's waste and recycling needs are being met.

4. Communication and Stakeholder Management

4.1. Communication

Effective communication between a Council and its stakeholders is vital for Local Government. It is necessary for LSC to communicate with the public on a range of matters such as developments, changes to operations, policies and regulations, as well as seeking community input on large projects and initiatives. The public also expects a path to share questions, concerns, complaints and other information with LSC.

4.2. Current Communication Outlets

LSC utilises a number of different avenues to deliver waste and recycling information to the community including:

- The LSC website;
- Public notices and advertisements in local newspapers and on the website;
- Print, such as pamphlets and letters;
- Signage, including billboards and information signage, at waste facilities and other key locations;
- Council meetings are open to the public, and meeting minutes are provided on the LSC website;
- Social media, such as the LSC Facebook page;
- Radio; and
- Television.

Enquiries can be made in person at any Council office. Contact phone numbers and mailing addresses for all LSC facilities are provided on both the website and in the phone book. An enquiries email address and online form are also provided on the website

4.3. Stakeholder Mapping for WRRP

Stakeholder identification is an imperative in the roll out of a new plan or policy. For each project, stakeholders are likely to have varying levels of interest and different levels of engagement and input into the Plan.

4.3.1. Methodology undertaken

The methodology used to identify the stakeholders for the WRRP is shown in **Figure 4.1.**

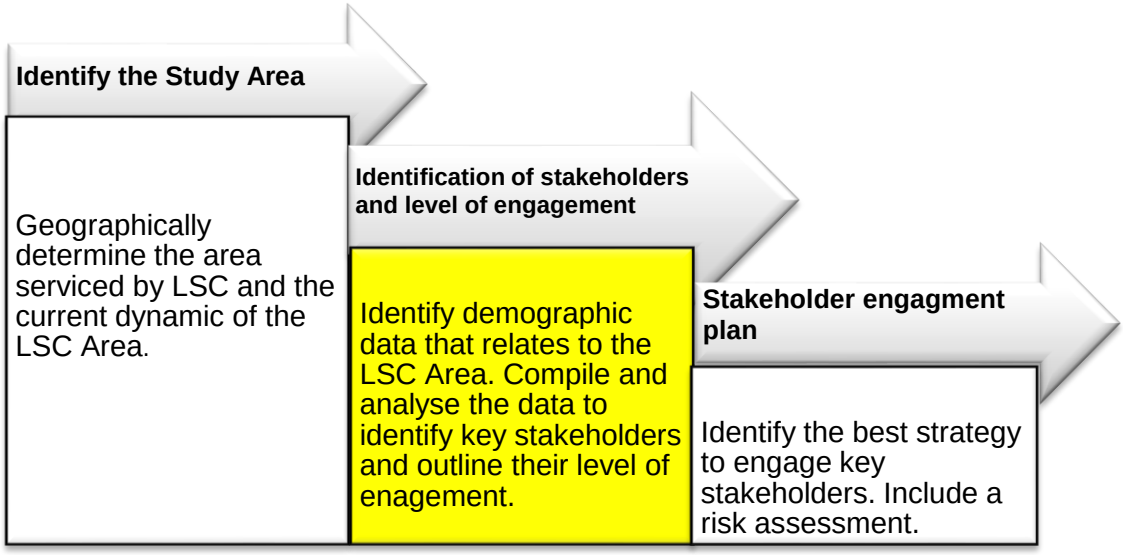


Figure 4.1: Stakeholder mapping methodology undertaken

4.3.2. Identify the Study Area

The stakeholder region for this plan is identified as the current LSC Local Government area at detailed in **Figure 1.1**.

4.3.3. Identification of stakeholders and level of engagement

The term “stakeholders” refers to any individual, group, organisation, or system that affects or can be affected by the LSC WRRP.

Stakeholders are mapped according to their likely level of interest in, and influence over, the WRRP as per the matrix presented as **Figure 4.2**. The WRRP stakeholder map is presented in **Figure 4.3**.

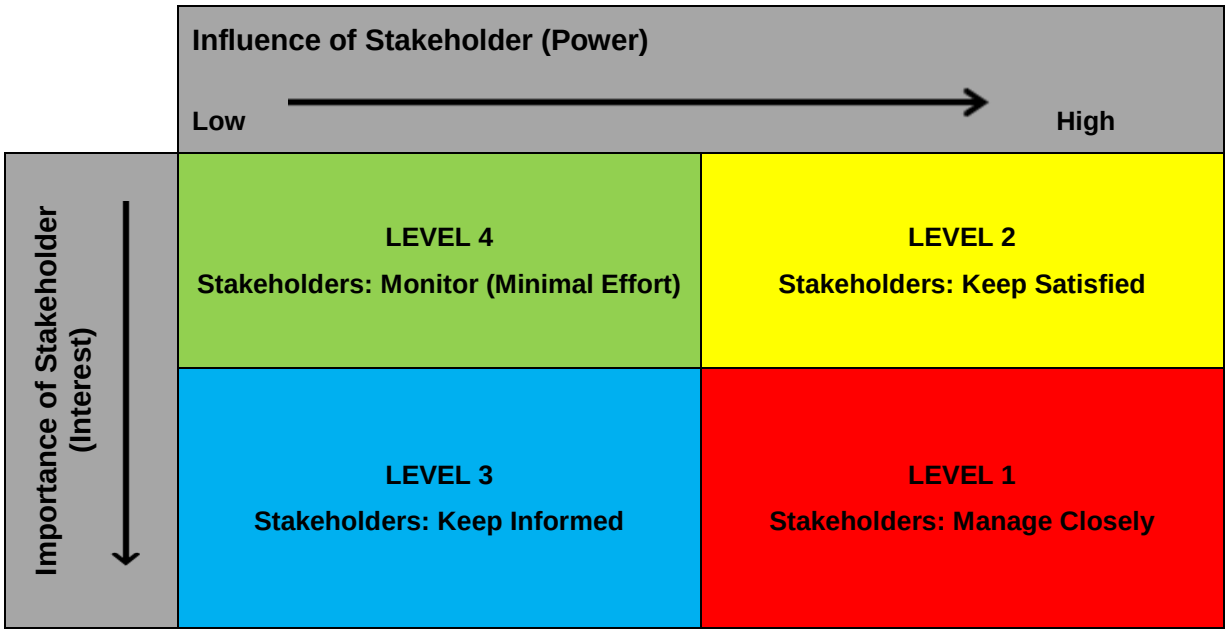
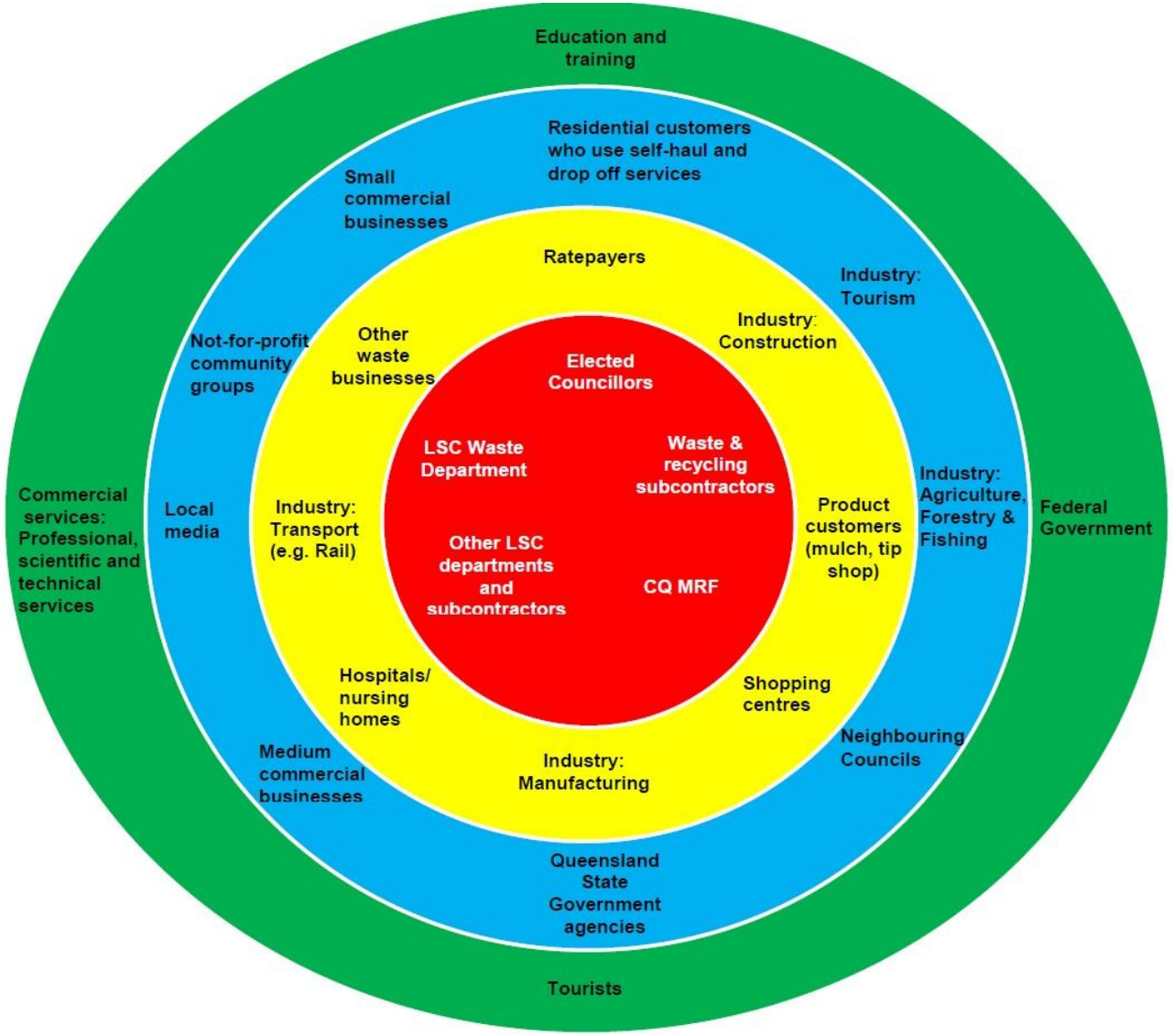


Figure 4.2: Stakeholder Matrix

Figure 4.3: LSC Waste Management Stakeholder Map



4.3.4. Stakeholder engagement plan

Table 4.1 lists the appropriate management and engagement method recommended for each stakeholder level.

Engagement methods range from formal correspondence and meetings with Level 1 stakeholders (see **Table 4.1**) to ensuring the WRRP is available for download on the LSC website by all stakeholders, including those in Level 4.

Table 4.1: Stakeholder engagement method for LSC WRRP

Stakeholder level	Management type	Engagement method and communication
1 – Manage closely	Inform, Consult, and Collaborate	LSC is to work closely with Level 1 stakeholders during the finalisation of the WRRP. Communication methods may include formal communication e.g. (Federal, State and Local law) to less formal methods such as meetings, presentations or phone discussions/emails. Incorporate input into the final WRRP where appropriate and in line with other LSC plans and strategies.
2 – Keep satisfied	Inform and Consult	Inform Level 2 stakeholders of the WRRP through media channels and the LSC website. Listen and consider suggestions for input.
3 – Keep informed	Inform and Consult	Inform Level 3 stakeholders of the WRRP through media channels and the LSC website. Provide opportunity for suggested inputs for the roll out of the Plan.
4 – Monitor	Inform	Ensure Level 4 stakeholders are aware of any changes and have access to final version of the WRRP. The Plan is to be made available on the LSC website.

Failure to engage relevant stakeholders suitably could reflect negatively on the success of the WRRP, as identified in **Table 4.2.** This table identifies the stakeholder types and the associated risk, consequence and control measures that should be implemented.

Table 4.2: Risk Assessment LSC WRRP Stakeholder Engagement

Stakeholders	Risk	Consequence	Control
Corporate / Community	Engagement with media produces negative media.	Adverse effect of intentions.	Key messages with specific media engagement strategies.
	Community unaware of changes to waste management infrastructure planning in the Region.	Reputation, waste management goals not achieved and damage to LSC credibility.	Ensure appropriate communication channels are used to reach desired audience.
	Failure of strategy – doesn't meet desired outcomes / objectives.	Impact on credibility.	Internally monitor WRRP progress.

Stakeholders	Risk	Consequence	Control
Legal - Regulators	Non-compliant with the *Queensland Waste Reduction and Recycling Act 2011* or other environmental legislation.	Legal ramifications and damage to reputation and credibility.	Future planning to comply with EA conditions. Develop the WRRP in accordance with the *Queensland Waste Reduction and Recycling Act 2011.*
LSC employees, contractors and sub- contractors.	Employees, contractors and sub-contractors are unaware of the WRRP and implications on their contracts/duties.	Strategy objectives are not met, disgruntled staff, budget challenges with contractors.	Ensure these stakeholders are aware of any changes implemented by WRRP that affect them and have a point of contact for any queries that may arise.
LSC finance	Budget doesn't match plan.	Not enough funds to achieve objectives.	Set realistic budget, monitor budget and milestones.

4.4. Community Engagement

As required under Section 125 of the Act, the draft WRRP (or its headline summary document) is to be made available for public review and comment for a minimum of 28 days via a variety of avenues. It could be made accessible on the LSC website and Facebook page along with information providing context to the document and how to make a submission. Hardcopy versions could also be available at public libraries and Council buildings.

All submissions will be reviewed and considered by LSC when finalising the WRRP.

5. Where do we want to get to? – Plan Vision, Themes, Objective and Targets

5.1. LSC's Vision

Livingstone Shire Council is home for our 36,000 residents, a hub for our businesses and services industries and a popular destination for a growing number of visitors. For that reason we recognise that a clear focus on waste management is needed to ensure the future of our shire.

Waste management is an essential service which needs to consider social, environmental and economic challenges. Our Councillors, our staff and our contractors are committed to listening to the community's needs, recognising what needs to be done to meet Council's responsibilities for the management of waste in order to promote the liveability of our shire and to protect the environment.

Council's vision for this Waste Reduction and Recycling Plan (WRRP) is to guide the shire in the continual improvement of its waste management practices through innovation, education and promotion of reducing, reusing and recycling of waste streams as the key priorities.

We look forward to working with our community to implement this plan.

5.2. WRPP Themes

To ensure the vision outlined in the sections above is achieved, six key themes have been prepared by LSC. These themes draw on key drivers from all levels of Government and key community needs:

1. Waste Avoidance and Reduction;
2. Recycling and Waste Recovery;
3. Protection of the Environment and Human Health;
4. Driving Community Values;
5. Innovative, Sustainable and Cost Effective Developments; and
6. Waste Infrastructure Planning.

Objectives and targets have been developed for each, outlining the purpose, as well as providing measurable goals (see **Table 5.1** to **Table 5.6)**.

Table 5.1: Theme 1 objectives and targets

Theme 1: Waste Avoidance and Reduction
Objectives: 1.1 Reduce the amount of waste generated in the Shire per capita. 1.2 Establish baseline waste data by 2016/2017. 1.3 Measure and communicate success of implementation.
Targets: T1.1 Annual reduction of per capita household waste by 2.5% (5% stretch target). T1.2 Annual reduction of per capita waste generated by LSC activities by 2.5% (5% stretch target). T1.3 Annual reduction of per capita commercial and industrial, and construction and demolition waste by 2.5% (5% stretch target). T1.4 Achieve an overall reduction in waste to landfill of 15% per capita over the life of the WRRP (by 2026).

Table 5.2: Theme 2 objectives and targets

Theme 2: Recycling and Waste Recovery
Objective: 2.1 Increase the recovery and recycling rate of waste generated from household, industry and construction and demolition generated wastes. 2.2 Reduce contamination of recyclable waste. 2.3 Measure and communicate success of implementation.
Targets: T2.1 By 2026 achieve a recycling and recovery rate of: • 45% for MSW; • 55% for commercial and industrial; and • 80% for construction and demolition waste. T2.2 Reduction contamination levels in recycling waste by 10%

Table 5.3: Theme 3 objectives and targets

Theme 3: Protection of the Environment and Human Health
Objective: 3.1 Ensure all waste facilities are compliant with environmental licences and regulations, as well as workplace health and safety (WH&S) legislation and identify opportunities for improvement in operations and facilities to minimise risk to the environment and to human health. 3.2 Reduce illegal waste dumping and littering. 3.3 Ensure action plans are developed and implemented to identify and manage problem or priority wastes. 3.4 Ensure no harm to the environment or human harm results from closed landfills.
Targets: T3.1 Compliance with EA and EP Act requirements and WH&S requirements, with a goal of zero incidents and exceedances over the life of the WRRP. T3.2 Reduce the amount of illegally dumped material and litter by 30% by 2026. T3.3 Identify LSC's problem or priority wastes and implement solutions for the management of these wastes by 2026. T3.4 Ensure all closed landfills are accounted for and monitored as required.

Table 5.4: Theme 4 objectives and targets

Theme 4: Driving Community Values
Objectives: 4.1 Promote the values of the WRRP to the community. 4.2 Identify opportunities to increase community awareness of waste reduction, recycling

Theme 4: Driving Community Values
and management programs and implement education programs. 4.3 Collaborate with community organisations to achieve the objectives outlined in the WRRP. Ensure support and participation in community collaborative waste reduction efforts.
Targets: T4.1 Develop a communication plan that ensures the WRRP and its values are communicated to the Shire through a combination of media avenues and education programs. T4.2 Deliver a two-yearly survey of waste facility users to gauge stakeholder satisfaction and identify key community needs. T4.3 Work with community groups on at least one community collaborative waste reduction effort per year and promote the outcomes.

Table 5.5: Theme 5 objectives and targets

Theme 5: Innovative, Cost-Effective and Sustainable Developments
Objective: 5.1 Engage with the Central Queensland waste industry to develop innovative opportunities and collaborative efforts for waste management improvements, both within the Council and externally. 5.2 Review waste data collection systems to ensure data is captured accurately and in line with the targets of the WRRP (MSW, C&I, C&D and LSC waste streams). Ensure retrieval of data is simple and manageable. 5.3 Investigate opportunities to establish alternative waste treatment technologies, and resource recovery within the Shire.
Targets: T5.1 Investigate three opportunities (within Council or external) for innovative developments that will increase landfill diversion or increase recycling. T5.2 Assess the waste data collection system and ensure data capture is accurate, understandable, and captures data in line with the WRRP targets. T5.3 LSC to provide support to businesses (either new or currently established) in the waste management and resource recovery sector within the Shire where possible and feasible.

Table 5.6: Theme 6 objectives and targets

Theme 6: Waste Infrastructure Planning
Objective: 6.1 Ensure the extension of the Yeppoon Landfill is appropriately designed and planned to maximise potential air space, minimise environmental harm and improve waste recovery 6.2 Upgrade of entry works at Yeppoon Landfill to provide an improved recycling and resource recovery area prior to entry to the Landfill. 6.3 Conduct an investigation/assessment into current and proposed future waste infrastructure and services with the purpose of developing a Waste Infrastructure Plan

Theme 6: Waste Infrastructure Planning
(WIP) based on the findings.
Targets: T6.1 Development of Yeppoon Landfill design plan. T6.2 Yeppoon Landfill resource recovery area developed by 2018. T6.3a Waste infrastructure investigation/assessment conducted by 2017. T6.3b Development of a WIP for LSC by 2018.

6. How will the Plan be implemented- Action Plan

Table 6.1: Action Plan

Theme 1: Waste Avoidance and Reduction					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
1.1	Conduct an initial waste audit upon implementation of the WRRP, then every three years after when the WRRP is reviewed. Include in the audit a detailed cost analysis to determine the true cost of waste management.	1.2	1.1, 2.1	Audit completed three yearly	Initial – Early 2016. Then three yearly
1.2	Determine baseline waste generation rates for MSW, C&I and C&D, and LSC waste over a three year period, to improve recovery and recycling rates.	1.2	1.2	Baseline values are developed	July 2017
1.3	Monitor waste disposal levels on a monthly basis. Communicate this data to the community via the LSC website and other forms of visual media on a biannual basis.	1.3	1.1	Graphs of progress communicated to the public every six months.	Biannual
1.4	Investigate a “User pays” strategy – staged yearly increases in landfill fees to subsidise landfill costs and encourage users to increase recycling and waste recovery	1.1	2.1	Fee increase implemented yearly	Initial -July 2017 Yearly
1.5	Review current voucher system with a view to promote waste reduction and recycling.	1.1	3.2	Vouchers provided in rates	Initial -July 2017 Yearly
1.6	Develop and implement a sustainable purchasing plan (SPP) and waste minimisation plan (WMP) for LSC operations.	1.1	2.1	SMP and WMP developed	January 2017

Theme 2: Recycling and Waste Recovery					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
2.1	During the development approval stage for large developments, require the submission of a waste management plan and recycling commitments covering construction and operation stages.	2.1	1.1	Requirement in development approvals.	Ongoing
2.2	Determine baseline recycling rates for MSW, C&I, C&D and LSC activities, over a three year period, to improve recovery and recycling rates.	2.1	1.2	Baseline values are developed	July 2017
2.3	Provide increased support for the Yeppoon Landfill tip shop and/or second hand businesses in the Region and promote these businesses to achieve increased recovery rates.	2.1		Increase in sales at the Yeppoon Landfill Tip Shop and or local second hand businesses.	Ongoing
2.4	Establish an E-Waste recycling collection system	2.1	1.1	E-Waste Collection system established	July 2016
2.5	Assess and implement options for improving green waste management, including: • Increasing segregation of green waste and organics from other wastes; • Options for collecting green waste and organic matter from homes; and • Increasing the presence of composting facilities in the Council, either on LSC sites or through partnerships/relationships with relevant businesses in the private sector.	2.1	1.1, 2.1, 2.2, 5.1,5.3, 6.1	Options assessed and presented to Council. Option/s implemented	July 2017 July 2019

Theme 2: Recycling and Waste Recovery					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
2.6	Increased supervision of waste unloading in recycling drop off areas at landfill and the WTS sites, to reduce waste contamination	2.2	1.1, 2.1	Reduced contamination of recyclable material	Ongoing
2.7	Deliver public education on the best use of kerbside recycling, to maximize efficiency and minimize contamination.	2.2	2.1, 1.1	Reduced contamination of recyclable material	Ongoing
2.8	Monitor recycling and recovery levels on a monthly basis. Communicate this data to the community via the LSC website and other forms of visual media on a biannual basis.	2.3	2.1,2.2	Graphs of progress communicated to the public every six months.	Biannual

Theme 3: Protection of the Environment and Human Health					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
3.1	Regularly conduct internal environmental compliance and health and safety audits waste facility sites and action non-conformances accordingly.	3.1	5.2	Audit report and Action register	Ongoing
3.2	Develop and implement a management plan for illegal dumping and littering within the Region. Development of the plan should consider:	3.2	4.1, 4.2, 4.3,	Approved management plan	July 2018.

Theme 3: Protection of the Environment and Human Health					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
	• Public engagement initiatives; • Increased enforcement of local laws; • Increased fines; • Support for State and other regional initiatives. Continual improvement and monitoring of the plans effectiveness is to be achieved annually.				
3.3	Identify the Region's priority wastes (as per the Act) and develop and implement a management plan for those wastes.	3.3	3.1, 4.1, 4.2, 4.3, 5.1, 5.2	Approved management plan	July 2017
3.4	Review register of closed landfills and ensure document is up to date. Update document whenever new information is identified.	3.4	3.1	Register reviewed	July 2016
3.5	Develop an overarching Site Management Plan (SMP) and conduct monitoring and inspections at closed landfills where required by the EA	3.4	3.1	Monitoring and inspections conducted	Plan and inspections implemented by mid-2016

Theme 4: Community Values and Cultural Change					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
4.1	Develop and implement a communication plan for the Shire to inform the public about the WRRP, about the real costs associated with high contamination rates in recycling and the costs to ratepayers to clean up bin stations etc.	4.1	2.1, 3.1, 3.3, 4.2, 4.3, 5.1	Approved Communication Plan	July 2016
4.2	Develop and implement a Waste Education Plan (WEP) that addresses the requirements of the WRRP and informs the public about waste reduction and recycling practices. The plan should include education strategies such us: • Static displays at events, shops, libraries, and schools; • Education programs for school age children; • Digital, radio, print and television media advertising; • Internal training packages for LSC staff and contractors; and • Community billboards in key locations; and • Waste separation education signage prior to the entry point at waste facilities.	4.2	2.1, 3.1, 3.3, 4.2, 4.3, 5.1	Approved Waste Education Plan	July 2016
4.3	Deliver a two yearly survey to customers to gauge both stakeholder satisfaction and identify community needs. Key findings are to be incorporated into operations and aid in the continual improvement of waste management in the Region.	4.2	3.3, 4.1, 4.3	Survey and key findings from survey.	Every two years from the date of this WRRP.

4.4	Promote waste and recycling related events, e.g. National Recycling Week, to the Shire.	4.3	1.1,2.1,4.1	Events promoted to LSC	Ongoing
4.5	Attend, assist with or host at least one community collaborative waste reduction effort per year.	4.3	3.3, 4.1, 4.2	Attend, assist with, or host one collaborative effort, e.g. Clean-up Australia Day	Annually

Theme 5: Sustainable Developments and Innovation					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
5.1	Investigate three opportunities (within Council or external) for innovative developments that will increase landfill diversion or increase recycling. Make working with CQ waste professionals a priority for each investigation.	5.1	1.1, 2.1, 5.3	Opportunities investigated and presented to Council	2020
5.2	Conduct a review of LSC's waste data collection systems to ensure data is captured accurately and in line with the targets of the WRRP (MSW, C&I, C&D and LSC waste streams). Ensure retrieval of data is simple and manageable.	5.2	1.2, 1.3, 2.2, 2.3	Waste data collection system reviewed and improvements implemented where needed	July 2016
5.3	Work with contractors to identify methods to better capture: • Commercial recycling figures (kerbside and drop off); • Annual breakdown of recycling to the MRF by stream; • Waste generation figures from LSC's own activities (e.g. kerbside from LSC sites).	5.2	1.2, 1.3, 2.2, 2.3	Waste data captured	July 2017
5.4	Develop initiatives to either draw new business to the Region, or support existing businesses, in the waste management or resource recovery sector. Initiatives could include: • Advertising space on the LSC website or print media; • Provision of resources; • Establishing communication between the business and likeminded parties; and • Planning support.	5.3	1.1, 2.1, 5.1	Initiatives developed	July 2021

Theme 5: Sustainable Developments and Innovation					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
5.5	Investigate opportunities for implementing waste incineration technologies within the Council.	5.3	2.1, 5.1, 6.3	Opportunities investigated and presented to Council	July 2020
5.6	Consult in regional industry focus groups to identify new initiatives and improvement opportunities for waste infrastructure and services. If initial focus group is deemed a success by Council, hold biennial focus groups for the life of this Plan.	5.3	1.1, 2.1, 2.2, 5.3,	Industry focus group held	July 2017

Theme 6: Waste Infrastructure Planning					
Action		**Key objective addressed**	**Objectives addressed**	**Measure**	**Timescale for delivery**
6.1	Development of design plan for Yeppoon Landfill expansion that addresses: • Maximisation of landfill cell airspace; • Reducing environmental harm (e.g. SW diversion, gas capture, odour and dust control); • Maximises resource recovery and recycling.	6.1	1.1, 2.1, 3.1, 6.2	Yeppoon Landfill Design Plan	January 2023
6.2	Development of the Yeppoon Landfill resource recovery area, prior to the Landfill weighbridge to maximise resource recovery	6.2	1.1, 2.1, 3.1	Resource recovery area constructed and operational	July 2018
6.3	Conduct an assessment of LSC's current and proposed future waste infrastructure (e.g. practicality of bin stations) and services (e.g. kerbside collection) to identify potential areas for improvement and develop a plan for future waste infrastructure.	6.3	1.1, 2.1, 3.1, 6.1, 6.2	Assessment report developed	July 2017.
6.4	Develop a Waste Infrastructure Plan (WIP) based on the findings of the waste infrastructure assessment that addresses: • Replacement/upgrade schedules for waste infrastructure e.g. entry works at the Yeppoon Landfill to divert recyclables; • Plans for future waste infrastructure developments (eg extensions, stormwater diversion); and • Schedules for regular review of waste infrastructure and services to ensure they remain cost-effective and sustainable.	6.3	1.1, 1.2, 2.1, 5.1, 5.3	WIP developed	July 2018

7. How to measure success

LSC will work with the community, businesses and industry to achieve the targets outlined in this WRRP. To measure the success of each themes LSC will track the progress of each against the respective key indicator presented in **Table 7.1** and develop a monitoring progress report against the these indicators (see **Appendix D** for the monitoring progress report template). The WRRP will be reviewed every three years.

Table 7.1: Key indicators

Theme	Key Indicator
1. Waste Avoidance and Reduction	Waste generated per capita reduced from households, industry and government sources by 2.5 (5% stretch) per annum.
2. Waste Recovery and Recycling	Increased the rate of recycling per annum by: • 4.5% for MSW; • 5.5% for commercial and industry; and • 80% for construction and demolition waste.
3. Protection of the Environment and Human Health	No exceedance of EA limits, no non-compliances or complaints. Reduce the amount of illegal dumping and litter by 30% per annum.
4. Community Values	A 2.5 (5% stretch) reduction of household waste per annum and reduced contamination rates in recyclables.
5. Sustainable Developments and Innovation	Opportunities investigated and initiatives implemented for promoting waste businesses in the Shire and developing alternative waste technologies.
6. Waste Infrastructure Planning	Maximise life of current cell 2B. Construction of cell for landfill extension prior to requirements. Yeppoon Landfill entry works including resource recovery area established by 2018. Waste Infrastructure Plan developed by 2018.

Appendix A: LSC's Waste Policies

Waste and Recycling Collection Service Policy

Waste and Recycling Community Service Obligation Policy

Waste Charge Remission Policy

Appendix B: Summary of WRRP Requirements

Table B.1: WRR Act 2011 – WRRP requirements

Section	Requirement	Location in WRRP
123(2)(a)	Waste reduction and recycling targets for: i. Waste generated by local government on 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 local government on 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, Section 6 and Section 7
123(2)(d)	The management and monitoring of the local government's performance under the plan;	Section 7 and Section 8
123(2)(e)	Information about achieving continuous improvement in waste management;	Section 7
124 (1)(a)	Current and predicted information about the following matters relating to this area- i. Population profiles; ii. Residential, industrial and commercial development; iii. Amount and types of waste generated.	Section 2
124 (1)(b)	The service, markets and facilities relevant to dealing with different types and amount s of waste.	All sections
124 (1)(c)	The waste management and resource 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.

Appendix C: Queensland Waste Strategy 2014-2024

Click here

Appendix D: Annual Monitoring Progress Report Template

Theme 1: Waste Avoidance and Reduction	Version/Date:	Approved by:
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Waste management within the Region has followed the waste hierarchy with waste generated per capita reduced from households, industry and government sources by 1.6% per annum.		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
1.1 Reduce the amount of waste generated in the Shire per capita.	**T1.1** Annual reduction of per capita household waste by 2.5% (5% stretch target). **T1.2** Annual reduction of per capita waste generated by LSC activities by 2.5% (5% stretch target). **T1.3** Annual reduction of per capita commercial and industrial, and construction and demolition waste by 2.5% (5% stretch target). **T1.4** Achieve an overall reduction in waste to landfill of 15% per capita over the life of the WRRP (by 2026).	**A1.4** Investigate a "User pays" strategy – staged yearly increases in landfill fees to subsidise landfill costs and encourage users to increase recycling and waste recovery			
		A1.5 Review current voucher system with a view to promote waste reduction and recycling.			
		A1.6 Develop and implement a sustainable purchasing plan (SPP) and waste minimisation plan (WMP) for LSC operations.			
1.2 Establish baseline waste data by 2016/2017.		**A1.1** Conduct an initial waste audit upon implementation of the WRRP, then every three years after when the WRRP is reviewed. Include in the audit a detailed cost analysis to determine the true cost of waste management.			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
		A1.2 Determine baseline waste generation rates for MSW, C&I and C&D, and LSC waste over a three year period, to improve recovery and recycling rates.			
1.3 Measure and communicate success of implementation		**A1.3** Monitor waste disposal levels on a monthly basis. Communicate this data to the community via the LSC website and other forms of visual media on a biannual basis.			

Theme 2: Recycling and Waste Recovery	Version/Date:	Approved by:
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Increased the rate of recycling per annum by: • 5% for MSW; • 6.1% for commercial and industry; and • 8.8% for construction and demolition waste.		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
2.1 Increase the recovery and recycling rate of waste generated from household, industry and construction and demolition generated wastes.	**T2.1** By 2026 achieve a recycling and recovery rate of: • 45% for MSW; • 55% for commercial and industrial; and • 80% for construction and demolition waste.	**A2.1** During the development approval stage for large developments, require the submission of a waste management plan and recycling commitments covering construction and operation stages.			
		A2.2 Determine baseline recycling rates for MSW, C&I, C&D and LSC activities, over a three year period, to improve recovery and recycling rates.			
		A2.3 Provide increased support for the Yeppoon Landfill tip shop and/or second hand businesses in the Region and promote these businesses to achieve increased recovery rates.			
		A2.4 Establish an E-Waste recycling collection system.			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
		A2.5 Assess and implement options for improving green waste management, including: • Increasing segregation of green waste and organics from other wastes; • Options for collecting green waste and organic matter from homes; and Increasing the presence of composting facilities in the Council, either on LSC sites or through partnerships/relationships with relevant businesses in the private sector.			
2.2 Reduce contamination of recyclable waste.	**T2.2** Reduction contamination levels in recycling waste by 10%	**A2.6** Increased supervision of waste unloading in recycling drop off areas at landfill and the WTS sites, to reduce waste contamination.			
		A2.7 Deliver public education on the best use of kerbside recycling, to maximize efficiency and minimize contamination.			
2.3 Measure and communicate success of implementation.	As above	**A2.8** Monitor recycling and recovery levels on a monthly basis. Communicate this data to the community via the LSC website and other forms of visual media on a biannual basis.			

Theme 3: Protection of the Environment and Human Health	**Version/Date:**	**Approved by:**
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Zero licence breaches or exceedances. Reduce the amount of illegal dumping by 3.3% per annum.		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
3.1 Ensure all waste facilities are compliant with environmental licences and regulations, as well as workplace health and safety (WH&S) legislation and identify opportunities for improvement in operations and facilities to minimise risk to the environment and to human health.	**T3.1** Compliance with EA and EP Act requirements and WH&S requirements, with a goal of zero incidents and exceedances over the life of the WRRP.	**A3.1** Regularly conduct internal environmental compliance and health and safety audits waste facility sites and action non-conformances accordingly.			

3.2 Reduce illegal waste dumping and littering.	**T3.2** Reduce the amount of illegally dumped material and litter by 30% by 2026	**A3.2** Develop and implement a management plan for illegal dumping and littering within the Region. Development of the plan should consider: • Public engagement initiatives; • Increased enforcement of local laws; • Increased fines; • Support for State and other regional initiatives. Continual improvement and monitoring of the plans effectiveness is to be achieved annually.			
3.3 Ensure action plans are developed and implemented to identify and manage problem or priority wastes.	**T3.3** Identify LSC's problem or priority wastes and implement solutions for the management of these wastes by 2026.	**A3.3** Identify the Region's priority wastes (as per the Act) and develop and implement a management plan for those wastes.			
3.4 Ensure no harm to the environment or human harm results from closed landfills	**T3.4** Ensure all closed landfills are accounted for and monitoring as required.	**A3.4** Review register of closed landfills and ensure document is up to date. Update document whenever new information is identified.			
		A3.5 Develop an overarching Site Management Plan (SMP) and conduct monitoring and inspections at closed landfills where required by the EA			

Theme 4: Community Values and Cultural Change	Version/Date:	Approved by:
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Increased public awareness of waste management within the Region with a 0.5% reduction of household waste per annum.		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
4.1 Promote the values of the WRRP to the community.	**T4.1** Develop a communication plan that ensures the WRRP and its values are communicated to the Shire through a combination of media avenues and education programs.	**A4.1** Develop and implement a communication plan for the Shire to inform the public about the WRRP, about the real costs associated with high contamination rates in recycling and the costs to ratepayers to clean up bin stations etc.			
4.2 Identify opportunities to increase community awareness of waste reduction, recycling and management programs and implement education programs	**T4.2** Deliver a two-yearly survey of waste facility users to gauge stakeholder satisfaction and identify key community needs.	**A4.2** Develop and implement a Waste Education Plan (WEP) that addresses the requirements of the WRRP and informs the public about waste reduction and recycling practices. The plan should include education strategies such as: • Static displays at events, shops, libraries, and schools; • Education programs			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
		for school age children; • Digital, radio, print and television media advertising; • Internal training packages for LSC staff and contractors; and • Community billboards in key locations; and • Waste separation education signage prior to the entry point at waste facilities.			
		A4.3 Deliver a two yearly survey to customers to gauge both stakeholder satisfaction and identify community needs. Key findings are to be incorporated into operations and aid in the continual improvement of waste management in the Region.			
4.3 Collaborate with community organisations to achieve the objectives outlined in the WRRP. Ensure support and participation in community collaborative waste reduction efforts.	**T4.3** Work with community groups on at least one community collaborative waste reduction effort per year and promote the outcomes.	**A4.4** Promote waste and recycling related events, e.g. National Recycling Week, to the Shire.			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
		A4.5 Attend, assist with or host at least one community collaborative waste reduction effort per year.			

Theme 5: Sustainable Developments and Innovation	Version/Date:	Approved by:
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Increase in the number of new businesses supported in relation to waste management by 0.5%		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
5.1 Engage with the Central Queensland waste industry to develop innovative opportunities and collaborative efforts for waste management improvements, both within the Council and externally.	**T5.1** Investigate three opportunities (within Council or external) for innovative developments that will increase landfill diversion or increase recycling.	**A5.1** Investigate three opportunities (within Council or external) for innovative developments that will increase landfill diversion or increase recycling. Make working with CQ waste professionals a priority for each investigation.			
5.2 Review waste data collection systems to ensure data is captured accurately and in line with the targets of the WRRP (MSW, C&I, C&D and LSC waste streams). Ensure retrieval of data is simple and manageable.	**T5.2** Assess the waste data collection system and ensure data capture is accurate, understandable, and captures data in line with the WRRP targets.	**A5.2** Conduct a review of LSC's waste data collection systems to ensure data is captured accurately and in line with the targets of the WRRP (MSW, C&I, C&D and LSC waste streams). Ensure retrieval of data is simple and manageable.			
		A5.3 Work with contractors to identify methods to better capture: • Commercial recycling figures (kerbside and drop off); • Annual breakdown of recycling to the MRF by stream; Waste generation figures from LSC's own activities (e.g. kerbside from LSC sites).			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
5.3 Investigate opportunities to establish alternative waste treatment technologies, and resource recovery within the Shire.	**T5.3** LSC to provide support to businesses (either new or currently established) in the waste management and resource recovery sector within the Shire where possible and feasible.	**A5.4** Develop initiatives to either draw new business to the Region, or support existing businesses, in the waste management or resource recovery sector. Initiatives could include: • Advertising space on the LSC website or print media; • Provision of resources; • Establishing communication between the business and likeminded parties; and • Planning support.			
		A5.5 Investigate opportunities for implementing waste incineration technologies within the Council.			
		A5.6 Consult in regional industry focus groups to identify new initiatives and improvement opportunities for waste infrastructure and services. If initial focus group is deemed a success by Council, hold biennial focus groups for the life of this Plan.			

Theme 6: Waste Infrastructure Planning	Version/Date:	Approved by:
Summary Progress Statement and discussion on how the Key Indicator was achieved:		
Key indicator: Development of the plan, which includes timelines, budgets and milestone measures for existing and future infrastructure, by end of 2016.		

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
6.1 Ensure the extension of the Yeppoon Landfill is appropriately designed and planned to maximise potential air space, minimise environmental harm and improve waste recovery	**T6.1** Development of Yeppoon Landfill design plan.	**A6.1** Development of design plan for Yeppoon Landfill expansion that addresses: • Maximisation of landfill cell airspace; • Reducing environmental harm (e.g. SW diversion, gas capture, odour and dust control); • Maximises resource recovery and recycling.			
6.2 Upgrade of entry works at Yeppoon Landfill to provide an improved recycling and resource recovery area prior to entry to the Landfill.	**T6.2** Yeppoon Landfill resource recovery area developed by 2018	**A6.2** Development of the Yeppoon Landfill resource recovery area, prior to the Landfill weighbridge to maximise resource recovery			
6.3 Conduct an investigation/assessment into current and proposed future waste infrastructure and services with the purpose of developing a Waste Infrastructure Plan (WIP)	**T6.3a** Waste infrastructure investigation/assessment conducted by 2017.	**A6.3** Conduct an assessment of LSC's current and proposed future waste infrastructure (e.g. practicality of bin stations) and services (e.g. kerbside collection) to identify potential areas for improvement and develop a plan for future waste infrastructure.			

Objective no.	Target no.	Actions no.	Complete (yes / no)	Discussion of achievement to date	New/subsequent actions require based on achievement
based on the findings.	**T6.3b** Development of a Waste Infrastructure Plan for LSC by 2018.	**A6.4** Develop a Waste Infrastructure Plan (WIP) based on the findings of the waste infrastructure assessment that addresses: • Replacement/upgrade schedules for waste infrastructure e.g. entry works at the Yeppoon Landfill to divert recyclables; • Plans for future waste infrastructure developments (eg extensions, stormwater diversion); and • Schedules for regular review of waste infrastructure and services to ensure they remain cost-effective and sustainable.			

Annexure D

CHRC Amended Waste Reduction and Recycling Plan

Amendment on Waste Reduction and Recycling Plan

2016-2026

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Prepared by: Central Highlands Regional Council

Revision	Date	Description	By	Review	Approved
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.

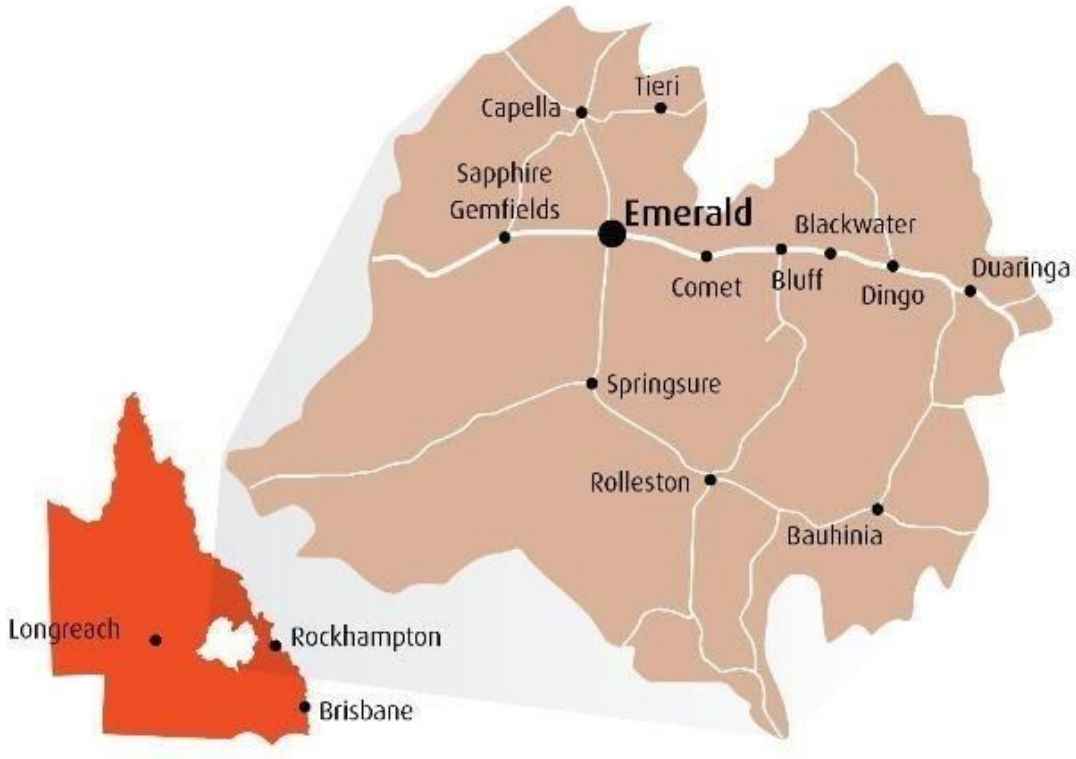
2. Where are we today?

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.

Pubic 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

Service	Household Service	Container (types and sizes)	Frequency	Operator	Facilities (including bulking and final destinations)
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

Service	Households served	Container (types & sizes)	Frequency	Operator	Facilities (including bulking and final destinations)
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.

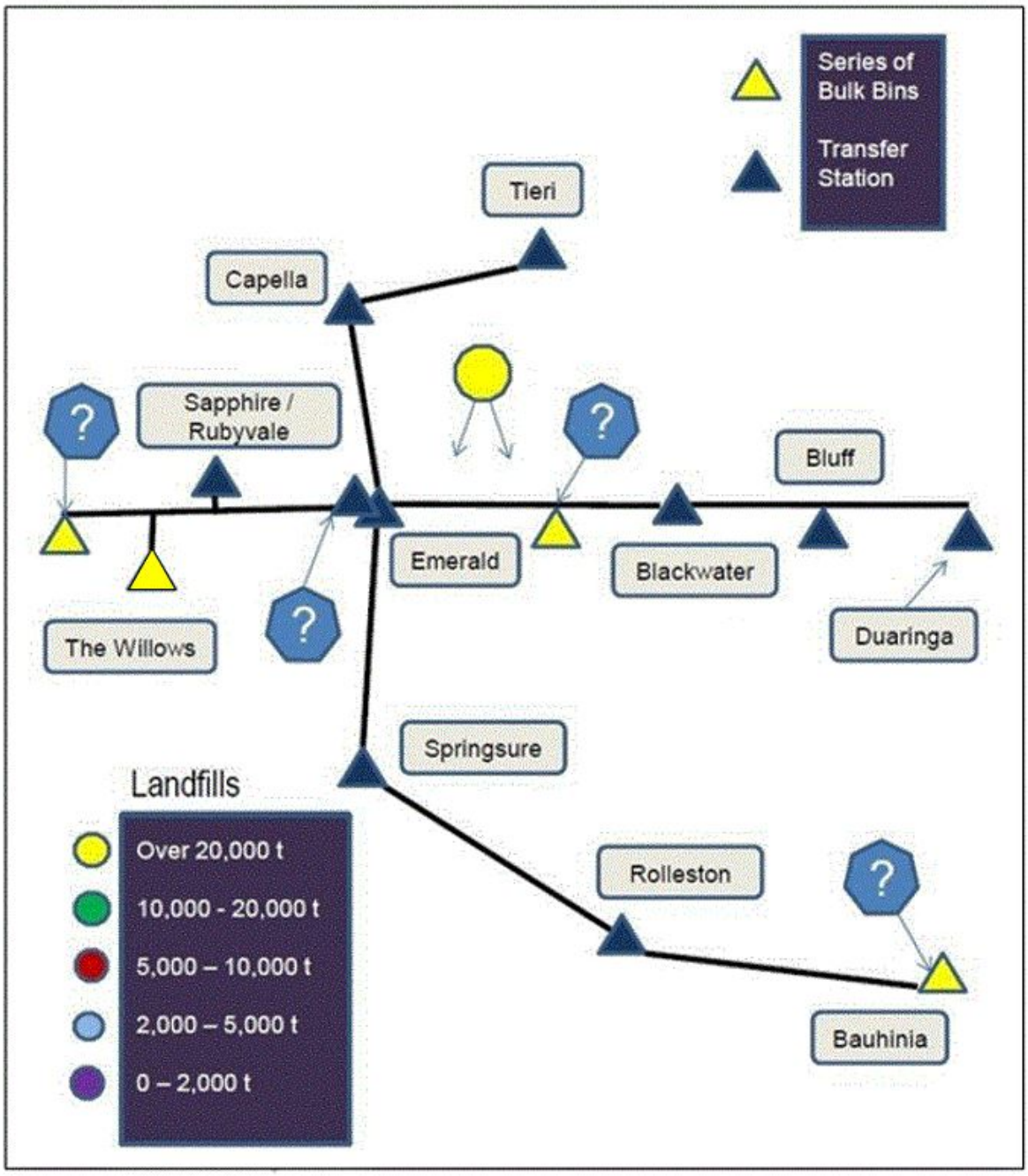
Figure 2 Map of Waste Infrastructure

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)
Resource Recovery Centre (Bulk bin stations)	Gindie		
	Fernless		
	Anakie		
	Comet		
	Bauhinia		
	Bogantungan		
	The Willows		
	Gindie		
Resource Recovery Centres (Transfer station)	Emerald		
Resource Recovery Centres (Landfill and transfer station)	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	
Resource Recovery centres (Landfills)	Emerald	10,000 to 20,000	
	Blackwater	2,000 to 5,000	10,000 to 20,000
Material recovery facility	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
Resource Recovery Centre (Bulk bin stations)	Gindie				
	Fernless	MSW			
	Anakie	MSW			
	Comet	MSW			
	Bauhinia	MSW			
	Bogantungan	MSW	Currently licensed as a landfill 50 to 2,000		Rehabilitation planned 2022
Resource Recovery Centres (Transfer station)	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
Resource Recovery Centres (Landfill and transfer station)	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
Resource Recovery centres (Landfills)	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	
Material recovery facility	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

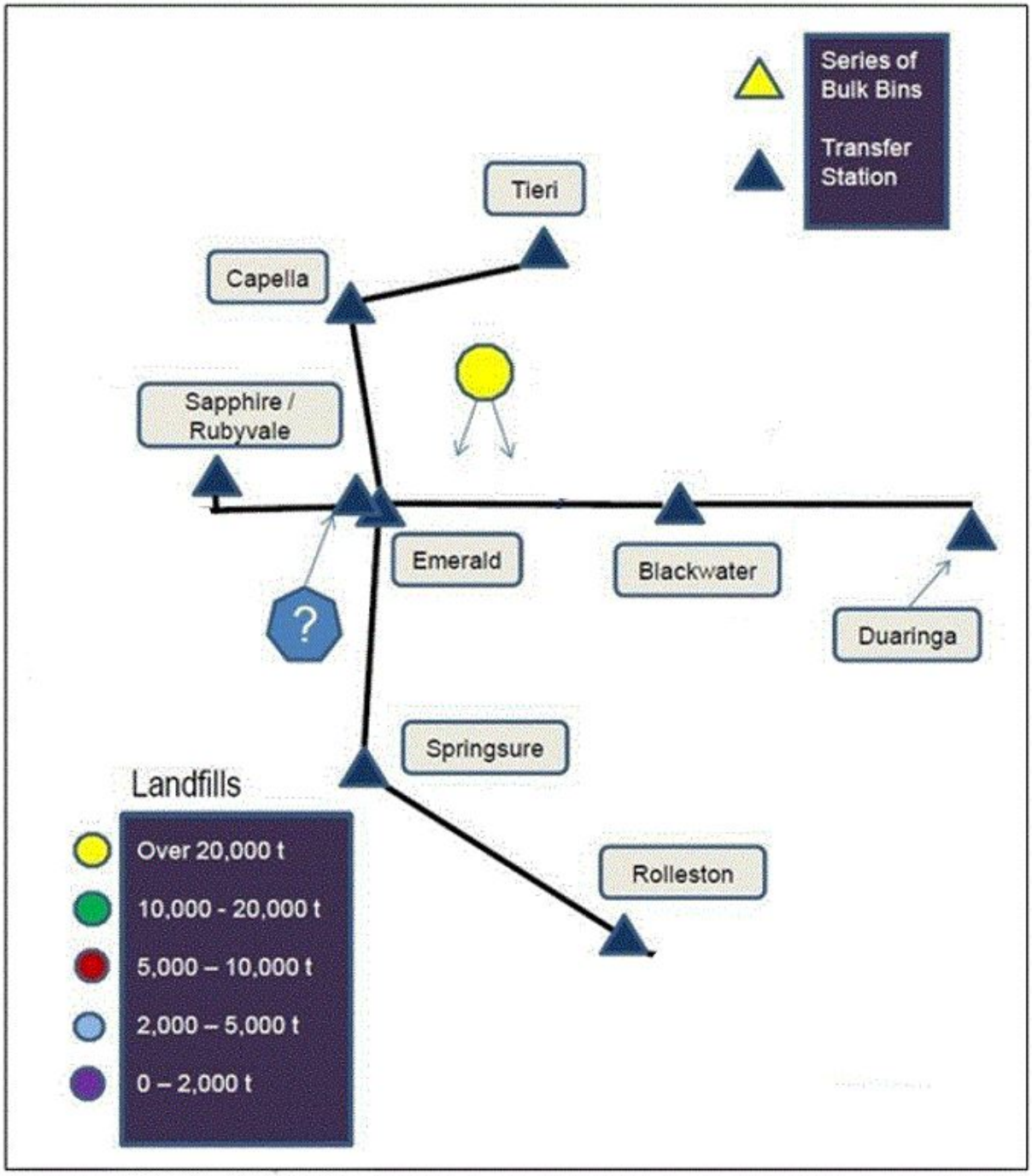
Facility type	Name	Type of material sent	Operational Change
Resource Recovery Centre (Bulk bin stations)	Comet	MSW	Key access to residents by 31 Dec 2019 and will be closed by 30 June 2020
	Fernlees	MSW	Closed by 30 June 2020
	Anakie	MSW	Closed by 2022
	Gindie	MSW	Closed by 2022
	Bogantungan	MSW	Closed by 2026
	Bauhinia	MSW	Closed by 2026
	Willows	MSW	Closed by 2026
Resource Recovery Centres (Transfer station)	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
Resource Recovery centres (Transition Landfills)	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
Resource Recovery centres (Landfills)	Regional Landfill (New site) **	MSW/ Commercial	Expected
Material recovery facility	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.

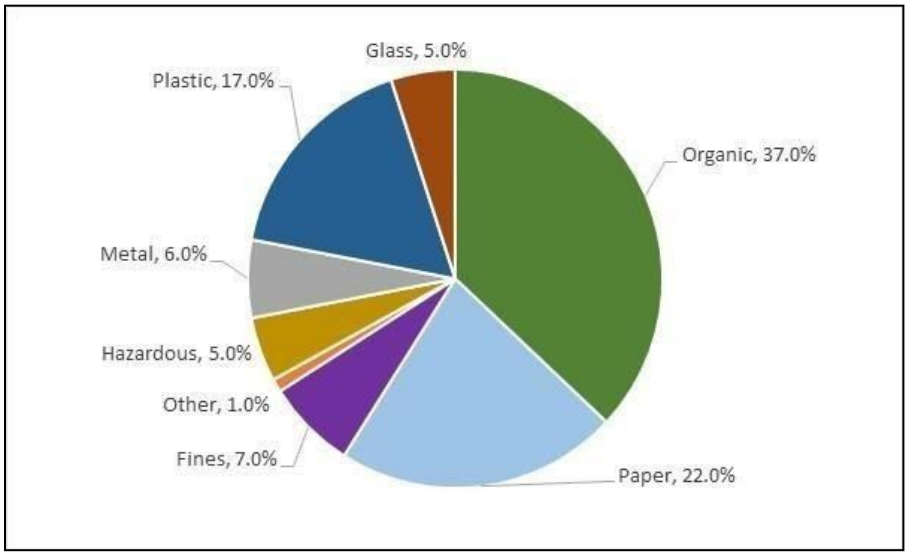
2.4 Waste Composition

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 as 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

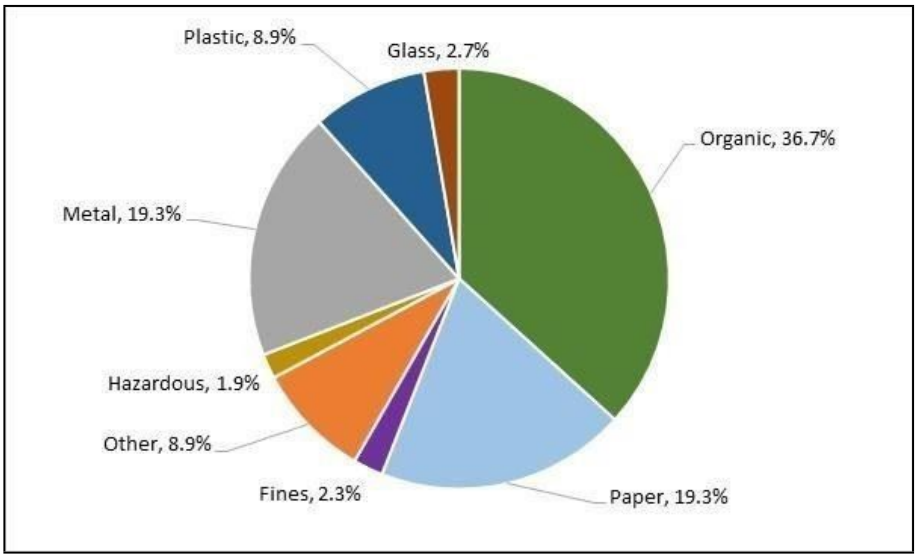
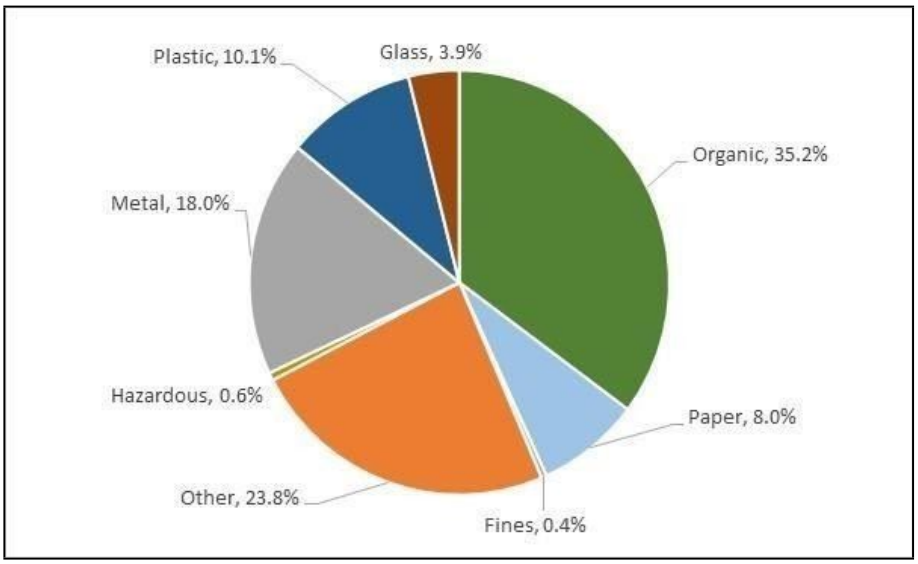


Figure 7 Composition of C&D



3. Key drivers and policy context

3.1 National drivers and polices

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 polices

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 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 polices

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 (Tieri).	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	Upgrade CHRC webpage with updated waste information including: - educational information; - awareness of resource recovery opportunities available at all facilities; - promote school kids for increased habit of separating, reducing and recycling waste from source; - collaborate with media to disseminate awareness songs, talk shows and others; - engage in community events and deliver education programs for 4R's, illegal dumping and littering; and - disseminate information regarding new operating hours and restricted access to facilities through pamphlets	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

Section	*Requirement*	*Location in WRRP*
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*

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Contact officer: Hannah Ransom
Contact phone: (02) 6243 1255

25/06/2020

Ms Leisa Dowling
Chief Executive Officer
Gladstone Regional Council

By email: info@gladstone.qld.gov.au
CC:

Dear Ms Dowling

Fee waiver request

I refer to your letter of 23 June 2020 to the Australian Competition and Consumer Commission (ACCC) in respect of a proposed application for authorisation. In your letter you have requested that the ACCC grant a fee waiver in respect of the proposed application.

In particular, you have requested that the fee to be paid in relation to an application for authorisation to be lodged by Gladstone Regional Council, Rockhampton Regional Council, Livingstone Shire Council and Central Highlands Regional Council, be waived in whole.

In support of your request, among other things, you submitted that:

(a) the required fee is substantial, relative to the size and ratepayer base of the respective local government areas

(b) payment of the fee is administratively burdensome and prohibitive, in light of other important activities of the councils

(c) any fee will divert resources away from core activities

(d) the council have faced unanticipated budgetary effects as a result of the Covd-19 pandemic, and

(e) the fee would ultimately be borne by the ratepayers.

Having regard to the above, 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 councils named above has been waived in part. An application fee of $2500 will apply.

This decision will remain in force for a period of three months. The three month period will expire on 25 September 2020.

A copy of this letter should accompany the application for authorisation. 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 after 25 September 2020, 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 Hannah Ransom on (02) 6243 1255.

Yours sincerely

Gavin Jones
Executive Director
Adjudication

Rockhampton Office
232 Bolsover St, Rockhampton
Gracemere Office
1 Ranger St, Gracemere
Mount Morgan Office
32 Hall St, Mount Morgan

17 June 2020

Our Ref: 1857
Your Ref: CR #
Enquiries: Waste & Recycling
Telephone: 07 4932 9000
Email: enquiries@rrc.qld.gov.au

Chief Executive Officer
Gladstone Regional Council
PO Box 29
GLADSTONE QLD 4680

ATTENTION: LEISA DOWLING

Dear Ms ~~Dowling~~ Leisa

REGIONAL RECYCLABLE PROCESSING SERVICES

I refer to the proposed joint procurement process by Gladstone Regional Council, Rockhampton Regional Council, Livingstone Shire Council and Central Highlands Regional Council for recyclables processing services.

Rockhampton Regional Council supports Gladstone Regional Council in their effort to seek authorisation from the ACCC on behalf of all Councils to collaboratively procure recyclables processing services. Regional collaborative procurement results in an aggregation of materials and therefore may result in economic benefits for each participating council and viable economies of scale for commercial operators.

Rockhampton Regional Council agrees:

1. to be listed as an applicant to any application for authorisation made under section 88 of the *Competition and Consumer Act 2010;*

2. to be listed as an applicant to any application or submissions made to the Australian Competition and Consumer Commission ("ACCC") that is incidental to the application for authorisation (including the application for a waiver of fees);

I confirm that Rockhampton Regional Council consents to this letter being disclosed to the ACCC.

Yours sincerely,

Evan Pardon
Chief Executive Officer

17 June 2020

Our Ref: WM31.6.4
Enquiries: Waste Services
Telephone: 07 4913 5000 or 1300 790 919
Email: enquiries@livingstone.qld.gov.au

Chief Executive Officer
Gladstone Regional Council
PO Box 29
Gladstone Queensland 4680

ATTENTION: LEISA DOWLING

Dear Ms Dowling

REGIONAL RECYCLABLE PROCESSING SERVICES

Further to the proposed joint procurement process involving Gladstone Regional Council, Rockhampton Regional Council, Livingstone Shire Council, and Central Highlands Regional Council for recyclables processing services.

Livingstone Shire Council supports Gladstone Regional Council in its effort to seek authorisation from the Australian Competition and Consumer Commission on behalf of all Councils to collaboratively procure recyclables processing services. Regional collaborative procurement results in an aggregation of materials and therefore may result in economic benefits for each participating council and viable economies of scale for commercial operators.

Livingstone Shire Council agrees:

1. to be listed as an applicant to any application for authorisation made under section 88 of the *Competition and Consumer Act 2010; and*
2. to be listed as an applicant to any application or submission made to the Australian Competition and Consumer Commission which is incidental to the application for authorisation (including the application for a waiver of fees);

Livingstone Shire Council consents to this letter being disclosed to the Australian Competition and Consumer Commission.

yours sincerely

Brett Bacon
Acting Chief Executive Officer

Central Highlands Regional Council

Our ref: ECM #1539410
Your ref:
Contact name: Kirstin Byrne
Email: [redacted]
Phone:
Address: PO Box 21, Emerald QLD 4720

23 June 2020

Chief Executive Officer
Gladstone Regional Council
PO Box 29
GLADSTONE QLD 4680

ATTENTION: LEISA DOWLING

Dear Ms Dowling

REGIONAL RECYCLABLE PROCESSING SERVICES

I refer to the proposed joint procurement process by Gladstone Regional Council, Rockhampton Regional Council, Livingstone Shire Council and Central Highlands Regional Council for recyclables processing services.

Central Highlands Regional Council supports Gladstone Regional Council in their effort to seek authorisation from the ACCC on behalf of all councils to collaboratively procure recyclables processing services. Regional collaborative procurement results in an aggregation of materials and therefore may result in economic benefits for each participating council and viable economies of scale for commercial operators.

Central Highlands Regional Council agrees:

1. to be listed as an applicant to any application for authorisation made under section 88 of the *Competition and Consumer Act 2010;*

2. to be listed as an applicant to any application or submissions made to the Australian Competition and Consumer Commission ("ACCC") that is incidental to the application for authorisation (including the application for a waiver of fees);

I confirm that Central Highlands Regional Council consents to this letter being disclosed to the ACCC.

Yours faithfully

[redacted]

Scott Mason
Chief Executive Officer

65 Egerton Street, Emerald QLD 4720 **T.** 1300 242 686
centralhighlands.qld.gov.au