



Wide Bay Burnett Regional Organisation of Councils

# WIDE BAY BURNETT REGIONAL ORGANISATION OF COUNCILS WASTE STRATEGY



## WASTE MANAGEMENT & RESOURCE RECOVERY STRATEGY 2015 – 2020

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## Strategy Goals

1. Investigate Regional waste collection services
2. Investigate opportunities of current landfills that meet the regions short & long term waste disposal needs
3. Provide opportunities to reduce waste disposal to landfill.
4. Provide Community Waste Education.
5. Investigate opportunities for regional procurement of services / shared procurement.
6. Investigate regional landfills or alternative disposal options
7. Investigate Landfill Rehabilitation Provisions

## Executive Summary

Wide Bay Burnett Regional Organisation of Councils (WBBROC) is made up of Fraser Coast Regional Council, Bundaberg Regional Council, Gympie Regional Council, North Burnett Regional Council, South Burnett Regional Council and Cherbourg Aboriginal Shire Council. Each Individual Council will have a waste strategy that outlines how they intend to manage their waste activities within their own area.

This regional waste management strategy focuses strongly on a review of all the facilities and services within the WBBROC group of Councils and look at any opportunities to manage waste better as a region which will include procurement of services. WBBROC has an abundance of transfer stations and landfills. Some of these may not meet current environmental and safety standards. The intention is to review these facilities to plan ahead to establish an appropriate waste facility network that will provide for the future waste disposal needs for the WBBROC region. This could include some current sites becoming regional landfills accepting waste from other Councils and future establishment of major waste landfill/s to service the WBBROC area.

The vision for Waste Management in the region is summarised as:

**“An engaged Regional Group of Councils and the community working together for sustainable and cost effective waste management”**

This strategy addresses waste prevention and minimisation, collection, treatment, resource recovery and final disposal. It considers the regulatory frameworks that impact on managing waste and applies local understanding of the region to provide a strategy that is relevant to the WBBROC area. The strategy development process assessed the existing arrangements against industry benchmarks and service levels.

The development of Strategy Goals provides a framework to focus the actions that WBBROC will take over the next five years. Seven Strategy Goals have been developed being:

1. Investigate Regional waste collection services
2. Investigate opportunities of current landfills that meet the regions short & long term waste disposal needs
3. Provide opportunities to reduce waste disposal to landfill.
4. Provide Community Waste Education.
5. Investigate opportunities for regional procurement of services / shared procurement.
6. Investigate regional landfills or alternative disposal options
7. Investigate Landfill Rehabilitation Provisions

There is a wide range of waste collection and disposal facilities by either contract or day labour these services include waste collection and recycling, bulk bins for domestic and commercial waste, Roll On Roll Off (RORO) bin service, landfills and transfer stations. Recycling collection services are provided at the three (3) larger Councils, Fraser Coast, Gympie, Bundaberg.

There are three (3) materials recovery facilities (MRF) within the WBBROC area. The first is located at University Drive Bundaberg (council owned, contractor managed), the second is at Industrial Avenue, Dundowran, Hervey Bay servicing Fraser Coast and Gympie Regional Councils (Cleanaway owned and managed) with the third being Cherbourg Aboriginal Council which have a council owned and managed MRF.

Finally timeframes have been provided to guide the successful implementation of the strategy. The actions and timeframes are summarised below:

**Short Term Actions – 2015 to 2016**

Review current services provided and see what opportunities are available for regional procurement or shared services. i.e. – environmental monitoring services -groundwater and leachate collection services etc.  
Options and opportunities to extend the landfill life at some waste sites to be able to receive regional wastes and cost sharing/ management arrangements.  
Investigate opportunities to establish a regional waste education program  
Review a regional network of landfills and transfer stations  
Investigate opportunities to jointly manage some disposal sites to create economies of scale, improved operations and reduction of costs per unit

**Medium Term Actions – 2016 to 2018**

Investigate options and locations for major regional landfill/s able to service all Councils within WBB  
Commence arrangements to investigate and establish new collection contracts prior to the expiry of existing contract/s.  
Review all waste facilities and provide general recycling options at all sites where feasible.

**Long Term Actions – 2018 to 2020**

Commence arrangements to develop and manage new regional landfill/s through a joint venture or other options to manage waste as a regional group

**Ongoing Actions**

Monitor actions initiated by the private waste sector and remain informed of any changes to local government’s position in relation to commercial service delivery.

Councils continue operating their own landfill’s to achieve the approved landfill profiles.

Continue to work together as a regional collaborative waste management group

Documents attached to the strategy contain two (2) maps attachment “B” the existing network of all regional waste management sites available for general public access and attachment “C” the industry standard travel distance with 20 kilometre radius to waste facilities.

WBBROC will release after adoption the Waste Management and Resource Recovery Strategy 2015 – 202 to the community through their website.

**2. OVERVIEW**

Although individual Councils have responsibility for managing the wastes generated in the region, the Wide Bay Regional Organisation of Councils has an important role in coordinating aspects of this waste management, where it advantages its members. This strategy will guide the way waste is managed and will provide a timetable for WBBROC to prioritise how and when it addresses the issues associated with a growing community and a changing waste management landscape.

Managing waste today and in the future needs to consider and respond to a growing list of impacts that result from the ways we choose to manage discarded items. Community health and safety, economic conditions, environmental impacts, climate change, resource recovery and recycling are key areas of consideration. A number of these are influenced by legislative requirements which will be considered in the development of this strategy.

Councils do not have total responsibility for managing all waste. Principally, Councils are required by legislation to be responsible for collecting waste from households. The extent of Queensland Councils involvement in other services including landfill, transfer stations and commercial services is to a large degree influenced by private sector involvement in the various activities. For the WBBROC area, as for most Councils, the involvement extends into virtually all areas of waste management in the region. Therefore this strategy will attempt to address solid wastes identifiable within the region.

This strategy is intended to address all areas of waste management from waste prevention and minimisation, to its collection, treatment, resource recovery and final disposal. This strategy is designed to where possible compliment

and amalgamate the provision of waste services from the individual Councils waste strategies especially disposal sites to give the best outcome to the region and participating Councils by:

- establishing a program of actions to manage waste in ways that are economically and technically feasible, environmentally safe and publicly acceptable
- allowing for the incorporation of new and emerging technologies and appropriate responses to be made in the event of changes in the solid waste stream
- enhancing the Wide Bay Burnett Regional Organisation of Councils capacity to co-operate with industry, the community and other tiers of government on waste management issues.

A fundamental goal of the strategy is to review the facilities and services that exist across the WBBROC Group area. The intention is to identify and utilise landfills that can be used as regional facilities which will accept waste from other WBBROC Councils outside the individual council area. There is also a need to plan ahead to establish appropriate larger regional waste facilities that will provide for the future waste disposal needs of the Wide Bay Burnett Regional Organisation of Councils.

The strategy also recognises the various sectors that make up the overall waste stream. These include the Domestic, Commercial and Industrial (C&I) and Construction and Demolition (C&D) waste streams.

This Waste Management and Resource Recovery Strategy is a tool for WBBROC to review performance, identify potential areas for improvement, provide frameworks for improving waste minimisation and education, as well as allowing for the development and achievement of future environmentally responsible goals and objectives and plan future annual operational and capital budgets.

## **2.1 ADOPTED PRINCIPLES**

Waste is recognised as a potential resource, and WBBROC will develop cost effective strategies to minimise waste production and embrace sustainable resource management.

This regional strategy endeavours to give the highest priority to waste avoidance, reduction and re-use as the guiding principles for developing strategies and actions.

Other principles which may apply, where feasible, include:

### **Environmental Responsibility:**

- Sustainable resource management
- Best Practice
- Continuous Improvement
- State of the art major regional landfills

### **Financial Responsibility:**

- Pricing
- User pays
- Polluter pays
- National Competition Policy
- Regional procurement opportunities

### **Responsibility to the Community:**

- Ongoing education
- Effective information and feedback channels
- Best practice service provision

## 2.2 THE VISION

### 2.2.1 WBBROC Vision

A key outcome for WBBROC waste management is to implement a Waste Management Resource and Sustainability Strategy which seeks to:

- Minimise waste to landfill, maximise the potential of waste as a resource and explore innovative solutions in management, resource recovery and recycling of waste.
- Work together to provide cost effective waste management across all Councils through shared services or resources.
- Investigate the ability to create and manage regional landfill site/s and transfer stations to service the WBBROC area by meeting current environmental and health and safety standards
- Investigate future regional landfill/s to service the WBBROC areas
- Shared procurement opportunities.

### 2.2.2 Vision for the Waste Management and Resource Recovery Strategy

Wide Bay Burnett Regional Organisation of Councils maximises the environmental, social and economic opportunities of waste management activities by:

- Pursuing responsible and sustainable resource management, innovation, effective business development and systems, and community consultation;
- Being leaders in waste management through innovation with a commitment to high quality and cost effective waste management services;
- Fostering partnerships with the community, industry and governments to develop initiatives that reduce waste;
- Achieving our vision through working together with innovation, leadership and a commitment to responsible and sustainable solutions.

## 2.3 OBJECTIVE

The Waste Management and Resource Recovery Strategy should address the legislative and regional conditions that impact on waste management, and assess the existing practices. The objective is to provide short, medium and long term action and goals over the term of the five (5) year strategy for the Wide Bay Burnett Regional Organisation of Councils to consider.

The Goals and actions are identified in Short, Medium and Long Term timeframes

Figure 1 - Strategy Goal Timeframes

Year	2015	2016		2017	2018	2019	2020	
<b>Timeframe</b>	Short term			Medium Term		Long Term		
<b>Strategy Goal Detail</b>	Goals supported by recommended actions					Identified project options		

## 2.4 STRATEGY FRAMEWORK

The strategy is divided into logical waste management functions based on the areas that WBBROC will focus on. A description of the services involved with these functions is provided below.

Figure 2 - Strategy Framework

Strategy Vision Focus	Services Involved
Collection Services	Domestic Waste wheeled bins. Domestic Recycling wheeled bins Street & Park Litter Bin collection Commercial Waste Commercial Recycling Construction and Demolition Waste
Waste Transfer and Disposal Facilities	Transfer Stations Landfill sites Regional landfill/s
Resource Recovery	Domestic Recycling Commercial Recycling Sort and Processing Facilities (eg Dirty MRF <sup>1</sup> ) Waste Minimisation and Education

1 **Dirty MRF** (Materials Recovery Facility) is generally a site that accepts and processes Construction and Demolition materials including timber, concrete, steel, plastics. The materials may be processed on site for supply direct to markets or consolidated and moved off-site to a recycling facility.

### 3 BACKGROUND

#### 3.1 REGULATORY FRAMEWORK

Virtually all activities that occur when managing waste are influenced by a regulatory environment. Principally these frameworks are defined at the National and State levels and they include both policies and laws.

##### 3.1.1 National Waste Policy

In November 2009 all Australian Environment Ministers signed off a National Waste Policy (NWP). Its intent is to be a driver for change and future planning. A key principle of the NWP is the promotion of partnerships between various stakeholders, with each taking responsibility for their own waste minimisation. To date the NWP has focused on Extended Producer Responsibility (EPR) with self-funded programs being initiated in 2012 for the collection and management of items including electronic waste (end-of-life televisions and computers) and possibly tyres at a future time. These are similar to existing funded programs for chemical container and used oil collections. For WBBROC the expansion into other types of waste may involve providing or assisting with the collection of items.

##### 3.1.2 Clean Energy Act 2011

Under the Clean Energy Act a carbon price mechanism is levied on a designated large landfill facility which is defined as having emissions of 25,000 tonnes or more of carbon dioxide equivalent (CO<sub>2</sub>- e) in a single year. As a guide 1 tonne of waste placed in a landfill can over time result on 1 tonne of CO<sub>2</sub>- e. Complicated assessment and reporting arrangements apply therefore identifying whether a landfill is a designated facility can be difficult particularly for those sites operating around the threshold levels. This could be the case for WBBROC where a regional landfill/s could reach the estimated waste to landfill volume. The impacts on site costs and pricing arrangements will need to be assessed by WBBROC. Currently the Carbon tax has been repealed.

##### 3.1.3 Australian Packaging Covenant

The Australian Packaging Covenant (APC) formerly known as the National Packaging Covenant (NPC) provides a mechanism for industries involved in consumer packaging supply chains to contribute to managing the impacts of packaging waste. Funds created by the covenant arrangements are applied to projects and previously this has included funding to local governments for packaging related projects including littering and collection/processing of recyclables. WBBROC should maintain a watching brief to identify any project funding opportunities available from the APC.



### **3.1.4 Mandatory Renewable Energy Targets**

Australia has adopted targets for renewable energy generation with the arrangements being managed under several pieces of supporting legislation and regulations. In 2010 Mandatory Renewable Energy Targets (MRETS) were established which require 20% of Australia's energy generation to come from green or renewable energy sources by 2020.

One area of interest in achieving the targets is Bioenergy which includes energy from waste. The types of technologies that convert waste to energy are generally more expensive than traditional landfill costs.

### **3.1.5 Environmental Protection Act 1994 (QLD) – Environmental Protection Regulations 2008**

The Environmental Protection Act (1994) is the Queensland legislation that controls the general environmental impacts of managing waste. This act and subordinate legislations are aimed at protecting the environment while allowing for development to occur in a sustainable way. The design and operations of waste facilities particularly landfills are significantly controlled by requirements of this legislation.

### **3.1.6 Waste Reduction and Recycling Act 2011 (QLD) and the Environmental Legislation Amendment and Repeal Legislation (No1) 2014**

In 2011 the Queensland Government introduced the Waste Reduction and Recycling Act with the aims being to:

- Promote waste avoidance and reduction, and resource recovery and efficiency actions;
- 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;
- Minimise the overall impact of waste generation and disposal;
- Ensure a shared responsibility between government, business and industry and the community in waste management and resource recovery;
- Support and implement national frameworks, objectives and priorities for waste management and resource recovery.

Subsequent to the adoption of the Act the Queensland Government has amended the legislation including the removal of the waste disposal levy with a new Strategy due for release in September 2014.

An Environmental Legislation Amendment and Repeal Regulation (No. 1) 2014 have amended the Environmental Protection Act 1994 and the Waste Reduction and Recycling Act 2011 on 28 August 2014.

### **3.1.7 Queensland Waste Reduction & Recycling Strategy 2010 - 2020**

The Queensland Waste Reduction and Recycling Strategy 2010-2020 was adopted prior to the introduction of the Waste Reduction and Recycling Act. It promotes the creation of a price signal (waste levy) however as noted above the Queensland Government has since effectively removed the levy impost.

Strategy targets have been identified for reducing waste to landfill, increasing recycling and reducing the generation of waste. The priority targets listed include:

- Reduce waste to landfill by 50% by 2020;
- Reduce landfill gas emissions by 50% by 2020;
- Increase the recovery and recycling of materials across target waste streams;
- Reduce the per capita generation of waste; and
- Reduce litter dumping and associated effects.

### **3.2 THE WIDE BAY BURNETT REGION- INDUSTRIAL & ECONOMIC BASE**

The geography of the WBBROC area is very diverse including coastal beachfront townships, Fraser Island, river townships and village areas, developing industrial and business areas, fishing, rural townships and agricultural areas.

The main suburbs and towns within the Wide Bay Burnett Regional Council area are included in the Population trends.

### **3.3 POPULATION TRENDS**

#### **3.3.1 Population**

The population of the WBBROC area is outlined below:

LG Area	Population 2012/13	Area hectares	Annual growth
Fraser Coast	107,297	711,665	1.3%
Bundaberg	93,976	643,564	0.6%
North Burnett	10,360	1,970,800	0.4%
Cherbourg	1,286	3160	0.5%
Gympie	48,145	689,800	1.3%
South Burnett	32,614	839,900	1.0%
Wide Bay - Burnett	286,705	4,858,889	1.0%



**Wide Bay Burnett Regional Organisation of Councils (WBBROC) Area**

**3.3.2 Current Waste Data**

It is common to have waste generation rates of 1.8 to 2.1 tonne per person.

Waste data are generally based on volumes represented as tonnage. All Councils have initiated processes for capturing waste data at the majority of sites. Some of the actual tonnage data is captured via weighbridge transactions while at some sites volumetric capacity is recorded. Therefore it should be noted that some of the data represented in this document as waste tonnages are based on estimates using industry benchmarks and site assessments. This can invariably lead to some distortion of the data.

Developing a Waste Management and Resource Recovery Strategy requires some understanding of the types of waste generated in the region and an assessment of the current arrangements to manage those wastes. Once the sources and volumes of waste are known then the appropriate assessments can be made and well informed conclusions and plans can be formulated.

### 3.3.3 Sources of Waste

The Queensland Governments legislation requires Councils to plan for and report on all waste within their respective area where practicable. This recognises that other factors such as private commercial operators will limit the controls and planning that Councils can exercise over all wastes.

The information below provides an estimate of the waste managed annually at each waste facility, licence conditions and estimated lifespan.

**Figure 3 - Estimated waste tonnages 2013/14**

Regional Council	Town / Shire area	Name of facility	Landfill/ Transfer	Waste volume tonnes per annum	Licensed volume tonnes per annum	Future use	Lifespan years
<b>North Burnett</b>							
	Biggenden	Biggenden	Landfill	432	50 - 2000	Landfill	10 – 15 years
	Eidsvold	Eidsvold	Landfill	360	10,000 – 20,000	Landfill	6 years
	Gayndah	Gayndah	Landfill	1100	2000 – 5000	Landfill	10 – 15 years
	Monto	Monto	Landfill	720	5000 – 10,000	Landfill	60 years
	Mount Perry	Mount Perry	Skip Bins	360	50 – 2000		0
	Mundubbera	Mundubbera	Landfill	1440	10,000 – 20,000	Landfill	349 years
<b>South Burnett</b>							
	Murgon	Cloyna	Landfill /transfer station	78	50 - 2000	Transfer station	TS in 2015/16
	Murgon	Murgon	Landfill	1250	2000 - 5000		4
	Wondai	Hivesville	Landfill	250	50 - 2000	Transfer station	1 to TS
	Wondai	Proston	TS	117			
	Wondai	Brigooda	Landfill	52	50 – 2000	Transfer station	TS in 2015/16
	Wondai	Durong	Landfill	114	50 – 2000	Transfer station	TS in 2015/16
	Wondai	Home creek	TS	234			
	Wondai	Wondai	Landfill & TS	1866	50 – 2000		14
	Kingaroy	Chahpingah	TS	22			
	Kingaroy	Kumbia	TS	585			
	Kingaroy	Memerambi	TS	234			
	Kingaroy	Kingaroy	Landfill & TS	9376	5000 – 10000		15
	Nanango	Maidenwell	TS	108			
	Nanango	Blackbutt	TS	208			

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	Nanango	Wattlecamp	TS	175			
	Nanango	Bunya Mountains	TS	40			15
	Nanango	Nanango	Landfill & TS	6352	5000 - 10000		
<b>Bundaberg</b>							
	Bundaberg	Bundaberg Regional landfill – Cedars Rd	Landfill	35,200	40000	Landfill	37
	Bundaberg	Bundaberg WMF – University Drive	Landfill & TS	18,000	100000 - 200000		24
	Burnett	Qunaba	Landfill	20,000	10000 - 20000		18
	Burnett	Meadowvale	Landfill TS under construction	2,500	5000 - 10000		10
	Burnett	Avondale	Landfill	1,000	2000 - 5000		5
	Burnett	South Kolan	TS	unknown			
	Isis	Childers	Landfill	7,900	5000 – 10000		15
	Isis	Woodgate	TS	Unknown			
	Isis	Cordalba	TS	Unknown			
	Isis	Buxton	TS	Unknown			
	Isis	Buxton	TS	unknown			
	Kolan	Tirroan	Landfill	3,750	50 - 2000		17
<b>GYMPIE</b>							
	Cooloola	Gympie landfill Bonnick Rd	Landfill	27738	20000 - 50000	8	
	Cooloola	South side	TS	561.60	50 -2000		
	Cooloola	Mary Valley	TS	384	50 - 2000		
	Cooloola	Traveston	TS	702			
	Cooloola	Tin Can Bay	Landfill	3816	50 - 20000		
	Cooloola	Rainbow Beach	Landfill	591	50 - 2000		
	Cooloola	Amamoor	TS	561			
	Kilkivan	Kilkivan landfill	Landfill	801	50 - 2000		
	Kilvivan	Goomeri landfill	Landfill	2918	50 – 2000	3	
	Kilkivan	Sexton TS	TS	187			
	Kilkivan	Woolooga	TS	93.6			
	Kilkivan	Tansey	TS	93			
	Kilkivan	Widgee	TS	187			
	Tiaro	Gunalda	Landfill	971	50 - 2000		
<b>FRASER COAST</b>							
	Hervey Bay	Nikenbah TS	TS & Composting	11,500 green waste	ERA 53 compost ERA 62 TS		50+
	Hervey Bay	Toogoom landfill	Landfill & composting	809	5000 - 10000	Transfer station	50+
	Hervey Bay	Burrum Heads	TS	317			25+

	Hervey Bay	Howard	TS	497			25+
	Maryborough	Tinana	Landfill	1363	5000 - 10000	Transfer station	
	Maryborough	Saltwater Creek	Landfill & TS	62000	50000 – 100000 ERA 62 & ERA 53 compost		20+
	Maryborough	Granville	landfill	894	5000 - 10000		
	Maryborough	Boonooroo	landfill	50	50 - 2000	Transfer station	
	Tiaro	Bauple	TS	52	50 - 2000		20+
	Woocoo	Aramara	landfill	40	50 - 2000	Transfer station	1TS
	Woocoo	Yengarie	TS	325			
	Fraser Island	Eurong	TS	131	QPWS owned		
	Fraser Island	Happy Valley	TS	105	QPWS owned		
	Fraser Island	Orchid Beach	TS	263	QPWS owned		

### 3.3.4 Total Waste Projections

Combining the population projections with the current total waste data provides a future view of the amount of waste that would be expected to be generated in the WBBROC area. These projections do not take account of any waste reduction or diversion that may occur or any of the volumes from sites that the waste volumes are unknown. They are only meant to indicate the quantum of waste that may require managing at various time intervals. These figures are required when planning a MAJOR regional landfill FACILITY.

Figure 4 - Projected Total Waste (Tonnes)

Year	2014	2016	2018	2020
Total Waste (tonnes)	194,666	198,560	202,531	206,581

## 3.4 WASTE REDUCTION AND RECYCLING

Waste reduction targets set nationally and continuously promoted to reduce the amount of waste to landfill have not seen a significant reduction in waste tonnages. Locally this is not caused through the endeavours of the Councils to reduce waste to landfill through recycling and reuse but is recognised as a function of lifestyle and consumption patterns.

There needs to be an increased effort to ensure that Councils face the added challenge of managing these increased wastes not only from consumption but from the increases in domestic and industry growth and associated issues.

### 3.4.1 Goals and Targets

Setting future waste reduction and recycling targets for the various waste streams including residential, commercial/industrial and construction/demolition wastes will require a change to council practices. Currently, the three major coastal Councils have kerbside collections. Further recycling activities may be implemented in the future where practical and feasible. The collection of recyclable and reusable items from all waste facilities will need to be strengthened to achieve any additional waste reduction targets.

## **4 STRATEGY DEVELOPMENT**

### **4.1 STRATEGY GOALS**

Strategy goals must be developed and implemented if WBBROC is to continue to move forward with regional waste management. The provision of regional waste facilities and procurement services could through a collective arrangement benefit the regional councils allowing all to participate in better management and reduced costs.

### **4.2 WASTE FACILITY NETWORK PLANNING**

Waste facilities represent a key part of the waste management system. The facilities are supported by collection services provided by Council and private operators. The type, number and location of facilities will impact on the overall waste management cost and levels of service to individual Councils. A reduction in minor substandard landfills and the implementation of strategic regional waste disposal facilities will reduce waste management costs for some councils but transport costs may increase for others, provide better infrastructure, plant and staffing to manage other sites more environmentally acceptable way and in full compliance with licence conditions. Each Council has addressed the issue of location of waste facilities within their own waste strategy.

#### **4.2.1 Levels of Service**

The reason for defining a level of service is to balance the needs of domestic and commercial customers with economic and environmentally sustainable service delivery requirements. Defining the level of service generally involves consideration of such issues as:

- Customer travel time to facilities
- Site supervision
- Facility opening hours
- Types of facilities and services required

##### **4.2.1.1 CUSTOMER TRAVEL TIME TO WASTE AND RECYCLING FACILITY**

Customers will create a perception of the level of service provided based on the time taken to reach a facility. This level of service will define what the community can expect from their Council and will also assist in identifying the appropriate number and location of facilities across the WBBROC area. Generally accepted industry best practice levels of service are:

- 80 per cent of the population within a 20 minute travel time to a facility; or
- 95 per cent of the population within a 30 minute travel time to a facility.

Customer travel times are identified by the compilation of existing waste management facility location data on each facility. Map Attachment B gives a view of the WBBROC area showing the location of the individual waste infrastructure and the relationship to other sites.

Map Attachment C shows all the waste facility locations for WBBROC area with 20km circles around each facility and the industry standard of approximate a 30 min travel distance.

##### **4.2.1.2 Site Supervision**

Waste management facilities by nature can expose people to health and safety risks. Similarly inappropriate placement of wastes can create risks and can render recycling materials unrecyclable. Appropriate supervision of site activities is necessary to reduce risks and to ensure proper disposal practices occur. At least one staff member should be present while the facility is open to the public.

There are a number of sites that are not manned in the Wide Bay Burnett Area.



#### 4.2.1.3 OPTIMAL OPERATING DAYS/HOURS

Historically waste facilities have generally over-serviced communities with many examples of facilities being available 24 hrs, 7 days a week. Given the legislative requirement to supervise waste facilities, Councils must consider the operating costs and balance these with the customers perceived service levels. The desired result is to provide opening days and hours applicable to the usage the facility receives.

A generally accepted industry benchmark is applicable for smaller sites defined as facilities with predominately residential clients which receive less than 5,000 visitors per year. It is normal for these sites to open for approximately 12 hours per week with the norm being to open for a half day on the weekend days and another half day during the week. Larger sites with higher usage are assessed on an individual basis.

**Figure 5. – - Existing Waste Facility Opening Days/Hours\***

#### FRASER COAST REGIONAL COUNCIL

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Fraser Coast Recycling Centre – Nikenbah	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	66.5
Toogoom Landfill	1.00pm to 5.00pm	Closed	1.00pm to 5.00pm	Closed	1.00pm to 5.00pm	1.00pm to 5.00pm	1.00pm to 5.00pm	20
Howard Transfer Station	Closed	Closed	8.00am to 12. Noon	Closed	Closed	8.00am to 12. Noon	8.00am to 12. noon	12
Burrum Heads Transfer Station	Closed	Closed	Closed	Closed	Closed	12 noon to 4.00pm	8.00am to 12. noon	8
Maryborough Recycling Centre & Landfill	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	7.30am to 5.00pm	66.5
Granville Landfill	12 noon to 5.00pm	Closed	Closed	Closed	12 noon to 5.00pm	12 noon to 5.00pm	12 noon to 5.00pm	20
Tinana Landfill	7.00am to 12 noon	Closed	Closed	Closed	7.00am to 12 noon	7.00am to 12 noon	12 noon to 5.00pm	20
Yengarie Transfer Station	7.00am to 12 noon	Closed	Closed	Closed	7.00am to 12 noon	7.00am to 12 noon	12 noon to 5.00pm	20
Boonooroo Landfill	7.00am to 5.00pm	Closed	Closed	Closed	7.00am to 5.00pm	7.00am to 5.00pm	7.00am to 5.00pm	40
Bauple Transfer Station	7.00am to 12 noon	Closed	Closed	Closed	7.00am to 12 noon	7.00am to 12 noon	12 noon to 5.00pm	20
Aramara Landfill (Brooweena)	Open all hours - 7 days							168
Eurong Fraser Island	Open all hours - 7 days							168
Waddy Pt Orchid Beach Fraser Island	Note that these sites on Fraser Island are not owned by Council but are jointly operated with the Queensland Government - Department of Environment and Heritage Protection.							168
Happy Valley Fraser Island								168

\*The above opening hours are subject to change by the individual Council.



**GYMPIE REGIONAL COUNCIL**

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Gympie Landfill	8.00 am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	63
South Side transfer station. Sept - May	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	77
South Side transfer station June - Aug	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	73.50
Kilkivan Landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Goomeri landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Sexton transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Woolooga transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Mary Valley Transfer station	7.00am to 5pm	7.00am to 5pm	Closed	Closed	7.00am to 5pm	8.00am to 4pm	8.00am to 4pm	46
Traveston transfer station	7.00am to 5pm	7.00am to 5pm	Closed	Closed	7.00am to 5pm	8.00am to 4pm	8.00am to 4pm	46
Tin Can Bay landfill	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 4pm	8.00am to 4pm	61
Rainbow Landfill Sept - May	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	7.00am to 6pm	77
Rainbow Landfill June - Aug	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	73.50
Amamoor transfer station	7.00am to 5pm	7.00am to 5pm	Closed	Closed	7.00am to 5pm	8.00am to 4pm	8.00am to 4pm	46
Tansey Transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Widgee transfer station	7.00am to 5pm	7.00am to 5pm	Closed	Closed	7.00am to 5pm	8.00am to 4pm	8.00am to 4pm	46
Gunalda Landfill Sept - April	7.00am to 6pm	7.00am to 6pm	Closed	Closed	Closed	Closed	7.00am to 6pm	33
Gunalda Landfill May – Aug	7.00am to 5pm	7.00am to 5pm	Closed	Closed	Closed	Closed	7.00am to 5pm	30

\* The above opening hours are subject to change by the individual Council.

**SOUTH BURNETT REGIONAL COUNCIL**

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Cloyna Landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Murgon Landfill	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	77
Hivesville Landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Proston transfer station - keypad	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	84
Brigooda Landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Durong Landfill	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168

**WBBROC Waste Management and Resource Recovery Strategy 2015 - 2020**

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Home creek transfer station key and padlock	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Wondai Landfill & transfer station	6.30am to 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	6.30am – 5.30pm	77
Chahpingah transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Kumbia transfer station – key pad	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	6.00am to 6.00pm	84
Memerambi transfer station key and padlock	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Kingaroy Landfill & transfer station	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	8.00am to 5pm	63
Maidenwell transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168
Blackbutt transfer station	8.00am – 5.00pm	Closed	closed	8.00am to 5.00pm	8.00am to 5.00pm	8.00am to 5.00pm	8.00am to 5.00pm	45
Wattlecamp transfer station	Closed	Closed	8.00am to 5.00pm	Closed	Closed	8.00am to 5.00pm	8.00am to 5.00pm	27
Nango Landfill & transfer station	7.30am to 4.30pm	7.30am to 4.30pm	7.30am to 4.30pm	7.30am to 4.30pm	7.30am to 4.30pm	7.30am to 4.30pm	7.30am to 4.30pm	63
Bunya Mountains transfer station	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	168

\* The above opening hours are subject to change by the individual Council.

**BUNDABERG REGIONAL COUNCIL**

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Cedars Road landfill – <b>no public access</b>	7.00 am to 6.00pm	7.00 am to 6.00pm	7.00 am to 6.00pm	7.00 am to 6.00pm	7.00 am to 6.00pm	Closed	Closed	55
Bundaberg university drive Summer	6.15am to 5.45pm	6.15am to 5.45pm	6.15am to 5.45pm	6.15am to 5.45pm	6.15am to 5.45pm	6.15am to 5.45pm	6.15am to 5.45pm	80.50
Bundaberg university drive Winter	6.15 am to 5.30pm	6.15 am to 5.30pm	6.15 am to 5.30pm	6.15 am to 5.30pm	6.15 am to 5.30pm	6.15 am to 5.30pm	6.15 am to 5.30pm	78.75
Qunaba Landfill Summer	7.00am to 5.45pm	7.00am to 5.45pm	7.00am to 5.45pm	7.00am to 5.45pm	7.00am to 5.45pm	7.00am to 5.45pm	7.00am to 5.45pm	75.25
Qunaba Landfill Winter	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	7.00am to 5.30pm	73.50
Meadowvale Landfill & transfer station	7.00am to 5.30pm	Closed	7.00am to 5.30pm	Closed	7.00am to 5.30pm	8.00am to 5.30pm	8.00am to 5.30pm	50.50
Avondale Landfill	Closed	8.00am to 5.00pm	Closed	8.00am to 5.00pm	Closed	Closed	8.00am to 5.00pm	27.00
South Kolan transfer station	8.00am to 5.00pm	Closed	8.00am to 5.00pm	Closed	Closed	8.00am to 5.00pm	Closed	27.00
Childers Landfill	7.00am to 5.00pm	7.00am to 2.00pm	7.00am to 2.00pm	7.00am to 2.00pm	7.00am to 5.00pm	7.00am to 5.00pm	7.00am to 5.00pm	61
Woodgate transfer station	Closed	9.00am to 12pm	Closed	9.00am to 12pm	Closed	9.00am to 12pm	2.00pm to 5.00pm	12
Cordalba transfer station	Closed	Closed	Closed	Closed	Closed	1.00pm to 5pm	Closed	4
Buxton transfer station	Closed	Closed	Closed	Closed	Closed	Closed	1.00pm to 4.00pm	3

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Booyal transfer station	Closed	9.00am to 12pm	Closed	Closed	Closed	Closed	12.00pm to 3.00pm	6
Tirroan Landfill	7.30am to 12.30pm	Closed	Closed	Closed	Closed	7.30am to 12.30pm	11.00am to 4pm	15

\* The above opening hours are subject to change by the individual Council.

#### NORTH BURNETT REGIONAL COUNCIL

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Biggenden Landfill	Closed	1.00pm to 5.00pm	Closed	8.00am to 12.00pm 1.00pm to 5.00pm	Closed	1.00pm to 5.00pm	8.00am to 12pm	20
Eidsvold Landfill	Closed	9.00am to 5.00pm	Closed	Closed	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	32
Gayndah Landfill	10.00am to 5.00pm	Closed	10.00am to 12.00 12.30pm to 5.00pm	Closed	10.00am to 12.00 12.30pm to 5.00pm	10.00am to 12.00 12.30pm to 5.00pm	10.00am to 12.00 12.30pm to 5.00pm	32.5
Monto Landfill	Closed	12.30pm to 5.00pm	9.00am to 12.00 12.30pm to 5.00pm	12.30pm to 5.00pm	9.00am to 12.00 12.30pm to 5.00pm	9.00am to 12.00 12.30pm to 5.00pm	9.00am to 12.00 12.30pm to 5.00pm	39
Mount Perry Transfer station	Closed	8.00am to 1.00pm	Closed	1.00pm to 5.00pm	Closed	8.00am to 12.00pm	8.00am to 12.00pm	17
Mundubbera landfill	8.00am to 4.00pm	Closed	8.00am to 12.00pm	Closed	8.00am to 12.00pm	8.00am to 4.00pm	8.00am to 4.00pm	32

\* The above opening hours are subject to change by the individual Council.

#### CHERBOURG ABORIGINAL COUNCIL

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total Hours
Fisher Street landfill (Cherbourg)	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	56
Mickelo Drive Loop Road recycling station	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	9.00am to 5.00pm	Closed	Closed	Closed	32

\* The above opening hours are subject to change by the individual Council.

#### 4.2.1.4 TYPE OF FACILITIES AND SERVICES

##### 4.2.1.4.1 Transfer Stations

Waste transfer facilities operate to:

- consolidate smaller loads into larger more efficient loads for transfer off-site;
- provide safe and more environmentally acceptable customer interface;
- provide facilities for the collection of reusable and recyclable items;
- provide a permanent waste disposal site.

Transfer stations are long term waste management assets located within a site user catchment area. Unlike landfills the site location should not need to change and they do not generally have a defined end of life for the site.

Therefore the site should have sufficient footprint and be designed to allow it to change over time should the community grow or waste management practices change.

Major transfer stations are considered to be those facilities that will accept large volume waste from small and large vehicles such as waste collection compactor trucks. Generally this includes the transaction of large commercial vehicles on a price per tonne basis and weighbridge installation is common at these sites. Major transfer stations also generally accept waste and recyclables from domestic and commercial customers. Design usually incorporates machinery to push/load waste into large transfer vehicles.

Minor transfer stations are facilities that only accept smaller domestic and commercial vehicles, generally vehicles up to 4.5 tonne gross vehicle mass (GVM). Two types of facility designs allow either for waste to be deposited by the customer directly into a large (RORO) bin or onto a sort floor for sorting prior to loading and transfer. Providing weighbridges at minor transfer stations is dependent on pricing arrangements and should consider site traffic volume. Where a low volume of payment transactions occurs the capital outlay exceeds the return and these sites are better calculated as a price per m<sup>3</sup> with transaction data being captured on a hand held device. Weights for waste removed from minor transfer stations will be captured at the landfill weighbridge.

#### **4.2.1.4.2 Landfill**

When reviewing the WBBROC regional councils current waste management assets, landfills are strategic assets which have defined lives based on approved closure plans. Unfortunately a number of small non-viable landfills that accept only small volumes of waste are operated within the WBBROC area. Modern landfills are disposal facilities where full containment of waste and leachate and landfill gas is secured by designing lining systems, leachate and gas collection and treatment systems and appropriate landfill operations. The environmental impacts of modern landfills are minimised. However, it is inefficient and cost prohibitive to design and operate a modern landfill site with less than 30,000 tonnes of waste per year. Therefore, only joint approach and combining the waste volumes controlled by regional councils in the WBBROC area could provide economies of scale to develop and operate such a landfill. Council have some control over the life of the asset by varying the closure profile but there are limits and accepted norms that control these decisions. Councils can also influence the defined life through actions to increase recycling and reduce waste going to landfill.

Landfill sites operate under an environmental authority (licence) which includes operational requirements and nominates a cap on the volumes of waste that can be disposed of annually. A new landfill is generally a difficult facility to locate due to strict environmental and planning requirements and generally low community acceptance. This places importance on maximising the opportunities available from existing landfill assets within the WBBROC area. Landfill site selection, acquisition, planning, development and approval processes will generally take at least 7 to 10 years. Therefore any moves to identify a new site will require a long lead time prior to the site being established.

Poorly located or operated landfills can be a liability due to significant site management and compliance costs. Closed landfills also represent a financial liability where closure requirements are not planned and where costs and ongoing monitoring have not been considered and funded.

A common misconception in the community is that new technologies will remove the need for landfill. There are no examples of processing technologies which remove the need for a landfill all together.

#### **4.2.1.4.3 Resource Recovery**

Residential and commercial customers self-transporting waste typically need recycling facilities for green waste, timber, steel, cardboard, reusable items, oil, batteries and other household hazardous waste. Commercial customers generally have larger volumes of green waste, timber, steel, cardboard and concrete along with some plastics.

Federal legislation is facilitating the increased collection and reprocessing of some wastes. This has occurred previously to facilitate programs such as used oil recycling which some Councils have adopted at some of their waste management facilities. Changes have also seen e-Waste (electronic items such as computers and TV's) being

addressed by similar programs. WBBROC will need to remain informed of these programs and assess site changes that may be required to facilitate collection of such items on a regional recovery basis.

Mature markets exist for many recyclable items such as steel, plastic, cardboard and paper. These commodities are generally valued and traded in a global market which can be affected by economic conditions however these markets remain reasonably constant. Such recyclable items can be simple to segregate and manage at collection locations providing the site activities are properly supervised.

In addition to traditional waste management facilities such as landfills and transfer stations other more specialised waste sorting and processing facilities are used to separate and process items. Examples include Material Recovery Facilities (MRF's) where kerbside collected recyclables are sorted and consolidated for sending to markets, organic and green waste facilities such as composting sites, and construction and demolition waste sorting facilities where items including concrete, timber and steel are separated and processed or consolidated for sending to markets. These facilities can be co-located with the more traditional landfill and transfer station sites.

## **5. WBBROC STRATEGY**

### **5.1 COLLECTION SERVICES**

#### **5.1.1 Purpose**

To provide an efficient and cost effective combined waste collection service across the entire Regional area where practical.

The service with the highest profile is the wheeled bin service. This service is the public face of each Councils waste management operations. Most Councils provide a weekly wheeled bin service to the majority of premises in their cities/townships in defined waste collection areas.

#### **5.1.2 Overview**

A range of waste services are provided throughout the region with Bundaberg, Gympie and Fraser Coast Regional Councils also providing a recycling service.

Providing a wheeled bin collection service is the best waste service that Council can provide to residents. Putrescible waste is collected in a timely and hygienic and safe manner and transported directly to an authorised disposal location.

Some councils and private commercial operators also offer services to commercial businesses as well as construction and demolition waste services through bulk bin services. South Burnett Council bulk bin services are provided totally by private contractors.

#### **5.1.3 Domestic Waste**

##### **5.1.3.1 EXISTING ARRANGEMENTS**

###### **5.1.3.1.1 *Type of Service***

Residential properties in serviced areas are provided with a 240litre wheeled bin for weekly collection of domestic waste and a fortnightly service for recycling in some council areas

Figure 6 -Waste & Recycle collection services

Regional Council	Bin type 240l	Collection vehicle	Collection Operator	No of Services Domestic weekly	No of services recycle fortnightly	No of services commercial waste weekly
Fraser Coast	240l wheeled	Side arm vehicles	Contractor	39,540	39,242	4,660
Bundaberg	240l wheeled	Side arm vehicles	Council	37,908	37,810	3,608
North Burnett	240l wheeled	Side arm vehicle	Contractor	3,052	Nil	1,137
South Burnett	240l wheeled	Side Arm vehicle	Contractor	11,384	Nil	1805
Gympie	240l wheeled	Side arm vehicle	Contractor	19,564	19,564	2102
Cherbourg	240l wheeled	Side arm vehicle	Council	300	600	300

#### 5.1.3.1.2 Service Area

The existing defined collection areas provide a collection service to most of the regions populated areas. Some minor remote areas do not receive a service due to the remote location and truck access issues. These properties are able to access a transfer station/landfill sites to dispose of their general household waste.

#### 5.1.3.1.3 Service Revenue

Waste Collection charges are usually applicable to all rated properties within each individual council defined waste collection area.

Disposal charges are managed by the individual councils.

#### 5.1.3.1.4 Service Delivery

Figure 7- Existing Domestic Waste Wheeled Bin Collection Contracts

Area	Bin Type	Contract Expiry
Fraser Coast defined collection area	240 L Wheeled Bin	01/07/2022
Bundaberg defined collection area	240 L wheeled bin	Council service
Gympie defined collection area	240 L wheeled bin	
South Burnett defined collection area	240L wheeled bin	02/07/2022
North Burnett defined collection area	240 L wheeled bin	30/6/21 with 3 year extension

Cherbourg defined collection area	240L wheeled bin	Council service
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### 5.1.3.2 RISKS AND ISSUES

No specific risks or issues have been identified for the domestic waste collection service.

### 5.1.3.3 STRATEGY GOALS / ACTIONS

#### Strategy Goal 1 –Waste collection services

Description	Collection services that are well managed and operated will provide efficiency, safety and environmental benefits to Wide Bay Burnett Councils and customers in terms of service quality, cost and waste reduction and recycling.
<p>The majority of collection services are delivered through contract arrangements.</p> <p>The majority of contracts will not expire during the term of this strategy. Councils will need to collaborate prior to the expiry period to develop the requirements and specifications for a possible regional collection contract.</p> <p>The lead up time to calling tenders especially for the size of a regional contract should be a minimum of 2 years.</p> <p>Tenderers would require 6 months to properly consider all aspects of a regional contract, 3 months for Tender evaluation and 12 – 18 months lead in time for the successful contractor to acquire vehicles and prepare for the contract start of servicing.</p> <p>To undertake a regional waste collection contract if economically feasible, the process would need to start 5 years prior to current contracts expiring.</p> <p>Around early 2017</p>	

Actions Required	Timeframe	Measures and Targets
1 Investigate opportunities if economically viable to establish new regional contracts prior to the expiry of existing contracts.	Medium term	Consistent quality collection services are provided to the community through major WBB Councils Tender/Contracts

### 5.1.4 Domestic Recycling

#### 5.1.4.1 EXISTING ARRANGEMENTS

##### 5.1.4.1.1 Type of Service

In some Council areas residents are provided with a wheeled bin for fortnightly collection of recyclable materials. A choice also exists to arrange additional recycling bins at a property to enable additional fortnightly recycling services.

##### 5.1.4.1.2 Service Area

The service is provided within the Councils defined collection areas to those properties that receive a domestic waste collection service.

##### 5.1.4.1.3 Service Revenue

Pricing for recycling services is included in the domestic waste collection cleansing charges where recycling is available.

##### 5.1.4.1.4 Service Delivery

The recycling collection services are provided under the same contract or council provided service as the domestic waste collection.

#### **5.1.4.1.5 Recyclable Materials Processing (MRF)**

The acceptance, sorting and processing of recyclable materials from kerbside collections is provided either through existing collection contract (Fraser Coast & Gympie) or through Council provided services (Bundaberg & Cherbourg)

#### **5.1.4.2 RISKS AND ISSUES**

No specific risks and issues have been identified for the domestic waste collection service.

#### **5.1.4.3 STRATEGY GOALS / ACTIONS**

The goals and actions for the domestic recycling service and the MRF arrangements will be included in the actions identified in Strategy Goal 1 as detailed above in the domestic waste collection section.

#### **5.1.5 ORGANIC WASTE**

##### **5.1.5.1 SERVICE TYPE**

No Councils have an organic waste collection service.

FCRC has included the option of introducing green and organic waste collections via wheeled bins in the current collection contract. The service has not been initiated but is available to council if it decides to trigger the service commencement. If commenced it is expected the service will be a voluntary arrangement where residents can choose whether to participate.

#### **5.1.6 Street and Park Litter Bins**

##### **5.1.6.1 EXISTING ARRANGEMENTS**

###### **5.1.6.1.1 Type of Service**

Most Councils provide and service street and park litter bins throughout the region. The bins utilised include 240 ltr wheeled bins as well as purpose built litter bins. Public place recycling services are also provided in high profile, high use areas by some Councils.

###### **5.1.6.1.2 Service Area**

The street litter bins are generally provided in high volume pedestrian locations in city and town areas. Park bins are provided on an as needed basis according to utilisation and visitation of the area. Service areas and sites are monitored and services reviewed and changed as required.

###### **5.1.6.1.3 Service delivery**

The street and park litter bins are serviced by either Council staff or contracted services. The contracted services are provided as part of the main collection contract.

##### **5.1.6.2 RISKS AND ISSUES**

No risks or issues have been identified for this service.

##### **5.1.6.3 STRATEGY GOALS / ACTIONS**

Council's will need to review the service delivery for servicing street and park litter bins as part of renewing any collection contract. Therefore the goals and actions for the street and park litter bin service could be included in the actions identified in Strategy Goal 1 detailed above in the domestic waste collection section.



## 5.1.7 Grease Trap and Liquid Waste Services

### 5.1.7.1 EXISTING ARRANGEMENTS

#### 5.1.7.1.1 *Type of Service*

Services are provided by private operators using approved tankers.

#### 5.1.7.1.2 *Service Area*

Sufficient private operators exist to satisfy the regions service requirements.

#### 5.1.7.1.3 *Service Delivery*

Private operators are licensed to provide grease trap and liquid waste services for the region. Councils have no direct involvement in service delivery and the services are provided directly by the operator to the customer.

### 5.1.7.2 RISKS AND ISSUES

No specific risks and issues have been identified for the grease trap and liquid waste service.

### 5.1.7.3 STRATEGY GOALS / ACTIONS

No actions required.

## 5.1.8 Commercial Waste and Recycling

### 5.1.8.1 EXISTING ARRANGEMENTS

#### 5.1.8.1.1 *Type of Service*

Some Councils offers 240 litre wheeled bin, bulk bin and stationary compactor waste collection services to commercial customers. Private waste companies also offer bulk bin services to commercial customers.

#### 5.1.8.1.2 *Service Area*

Some Councils provides services to commercial customers located within their existing waste collection areas. Cherbourg Council does all industrial commercial customers daily, except specialised waste from the hospital.

#### 5.1.8.1.3 *Service Delivery*

Wheeled bin waste and recycling collection services are provided under existing waste collection contracts. Bulk bin services are also provided under contract arrangements in some Councils.

### 5.1.8.2 RISKS AND ISSUES

The following issues have been identified for the commercial waste collection service.

Figure 8 - Risks and Issues - Commercial Waste Collection

Issue	Control Options
Actions by private waste operators through industry associations challenging some local government activities in providing commercial waste and recycling collection services.	Monitor any actions initiated by the private sector operators and industry groups and remain informed of any changes to commercial service delivery.

### 5.1.8.3 STRATEGY ACTION

Strategy Goal - Commercial waste collection services in conjunction with private operators.

Description	Commercial collection services.
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There is no statutory requirement for Council's to provide commercial collection services. Commercial collection services can be left for the open market to service, particularly where mature private operators exist to service commercial customers. A mature competitive market exists for the provision of commercial bulk bin and stationary compactor collection services within the WBBROC area with a number of private companies competing for services. Private waste operators through industry associations have been active in seeking removal of suggested mandatory commercial arrangements by some local governments. Councils should monitor any actions initiated by the private sector operators and industry groups and remain informed of any changes to local government's position in relation to commercial waste and recycling service delivery.

Actions Required		By When	Measures and Targets
	Monitor actions initiated by the private waste sector and remain informed of any changes to local government's position in relation to commercial service delivery.	Ongoing	Commercial properties have commercial waste and recycling services available.

#### **5.1.1.9 Construction and Demolition Waste**

The collection of Construction and Demolition (C&D) waste is undertaken by private operators such as skip bin companies. Councils do not participate in providing these services. A mature market exists in the WBBROC area to satisfy the collection of C&D waste.

### **5.2 WASTE TRANSFER AND DISPOSAL FACILITIES**

#### **5.2.1 Purpose**

To provide an efficient and cost effective network of waste transfer and disposal facilities for the region. The ultimate goal is to have a network of facilities that:

- Satisfy defined service levels;
- Are equitable to all customers;
- Provide the capacity to meet the regions waste disposal needs both short and long term;
- Meet the expected environmental performance outcomes;
- Are hygienic and safe for staff and customers;
- Provide options for appropriate management of problem wastes.

#### **5.2.2 Overview**

Transfer Stations range from bulk bin sites to sophisticated state of the art waste recovery centres with market sales centres for the sale of recovered items. Councils operate the only transfer stations and landfills within the WBBROC area. No privately operated sites currently exist and there are no known plans for the establishment of privately operated sites.

Where residents receive a weekly waste collection service they will require access to a waste management site to dispose of larger bulky items and other waste items such as green waste. On average each residential property would be expected to visit a waste disposal site 2 to 3 times per year. Therefore for most residents visiting a waste site is an infrequent activity.

As the only landfill providers in the area Councils are charged with the responsibility to provide long term disposal capacity. A number of these receive low volumes of waste and are provided for localised use and in most cases are poorly operated without proving containment of waste and leachate as would be expected in a developed world. Having an abundance of appropriately licensed and approved landfill sites may be advantageous particularly in a region that can experience disaster events which restrict movement in the region and result in large volumes of

localised waste for disposal. Some WBB councils are best served to retain licensed landfill capacity and licences even where sites may be closed and dormant for disaster wastes in those areas.

To be able to calculate the remaining volume (available airspace) for a landfill requires the site to have a Closure Plan. The Closure Plan includes the final design profiles and ongoing monitoring arrangements. A number of sites do not have these plans.

Based on current landfill design and operating arrangements and using available data, a broad estimate can be made of the expected remaining life for each site.

### 5.2.3 RISKS AND ISSUES

The following issues have been identified for the transfer stations and landfills.

Figure 9 - Risks and Issues – Regional Transfer Stations and Landfill Network

Issue	Control Options
The current network of sites is operationally inefficient and provides excessively high levels of service	Councils should review site locations and design the optimal transfer station/landfill regional network with a focus on transfer facilities as the principle customer interface.
Reliance on landfill sites as customer access facilities.	
Maintain access to local waste disposal sites for emergency response.	Identify and protect/prolong the life of sites in the various sub-regions that can be accessed during emergency events (eg floods)
Uncertainty of remaining landfill capacity	Ensure landfill closure plans are developed for all sites which include final profiles to enable calculation of available landfill airspace
	Continually maintain sufficient long term waste disposal capacity for the region.
Closed landfills are to be rehabilitated and monitored.	Develop and maintain closed landfill rehabilitation and monitoring plans and progressively rehabilitate closed landfills within financial restraints.
Site activities are unsupervised at some sites.	Review all waste facilities and provide for all publicly accessible sites to be supervised during all open hours. Some Councils may find this financially restrictive due to sparse population spread across very large area and limited capacity to cover such costs.

### 5.2.4 Strategy Goals / Actions

#### Strategy Goal 2 - Provide the optimal network of waste transfer and disposal facilities

Description	
	Determine locations for transfer stations and landfills that provide customer access arrangements for the required service levels.
<p>The location of regional waste facilities must take account of population centres and geographical sub-regions. Designing the optimum regional transfer station network also requires alignment with landfill disposal sites which are also accessible by customers. The WBBROC area has an overabundance of landfills some of which are expected to close during the life of this strategy. Therefore WBBROC is well placed to consider and design a future waste facility network.</p> <p>As identified earlier in this report the generally accepted industry best practice levels of service are:</p> <ul style="list-style-type: none"> <li>• 80 per cent of the population within a 20 minute travel time to a facility; or</li> <li>• 95 per cent of the population within a 30 minute travel time to a facility.</li> </ul> <p><b>Attachment B</b> shows the existing waste facility locations for the WBBROC area. All of these sites are accessible by the general public for disposal of general waste. In <b>Attachment C</b> The 20km circles shown around each facility are used to approximate a 30 min travel distance. The preferred option would be for Councils to review and minimise overlap of the circles where possible and to provide sites that meet the expected service levels and reduced costs.</p>	

Actions Required		By When	Measures and Targets
2.1	Review the transfer station and Landfill network	Short Term	90% of residents will have access to a transfer station or landfill within 30 minutes' drive of their residence.

**Strategy Goal 3 - Provide landfills to meet the regions short & long term waste disposal needs**

Description	Assess the existing landfill network, maintain and develop sites that provide adequate (15 years) landfill capacity to meet future needs.
<p>This strategy goal focuses on the availability of landfill airspace into the future. Given the size and population of the area and the difficulties faced in developing new landfill sites, WBBROC will need to have a minimum volume of approved landfill airspace available at all times. This highlights the importance of having accurate predictions of landfill capacity. To provide for normal and emergency disposal requirements WBBROC should maintain 15 years of approved regional waste disposal capacity. Approved available airspace does not mean having a large 15 year landfill void constructed.</p> <p>It requires having:</p> <ul style="list-style-type: none"> <li>• Landfill closure plans for all landfill facilities ( to determine available airspace);</li> <li>• Sites with approved capacity and license to receive the anticipated volumes of waste, and;</li> <li>• An approved and funded forward program of landfill cell development.</li> </ul>	

Actions Required		By When	Measures and Targets
3.1	Investigate options to extend landfill life and acceptance of regional waste within the WBBROC area and cost sharing arrangements	Short Term	Some landfills within WBB region may be able to accept regional waste and assess the financial implications.
3.2	Investigate the long term waste disposal options for the region including the establishment of new major regional landfill/s	Medium term	A major landfill/s that is capable of accepting the long term waste disposal needs of the regional councils. Financial modelling will be required.

**5.3 RESOURCE RECOVERY**

- Encourage recycling / waste reduction across the community
- Provide multi-faceted waste facilities for residents to dispose of their recycling and reuse items;
- Provide opportunities to minimise construction and demolition waste through reuse and recycling where possible (some sites may be unviable);
- Reduce the amount of green waste that is going to landfill;
- Facilitate the processing of materials into value added products (example: mulch, crushed concrete).
- Take a positive role in providing the community with waste education services and advice.
- Provide infrastructure and services for a range of problematic wastes to be environmentally managed.

Materials recovered for recycling at the waste management facilities includes:

- Materials reused / recycled through waste recovery centres
- C&D waste separation, including concrete, bricks, timber

- Tyres, gas bottles
- White goods separation
- E-waste
- Steel, Ferrous and Non Ferrous metals
- Green waste
- Oil
- Drummuster

Council's should also provide supporting education programs to maximise recycling opportunities in the domestic, construction and demolition, and commercial/industrial sectors to encourage resource recovery.

### 5.3.3 Strategy Goals / Actions

#### Strategy Goal 4 - Provide opportunities to reduce waste to landfill

<b>Description</b>	Provide consistent recycling services across all council sites and provide facilities designed to increase resource recovery opportunities
<p><b>Waste Transfer Stations and Landfills - General Recycling</b></p> <p>As a minimum where practical and financially possible each site should where provide facilities for the collection and safe management of the following items:</p> <ul style="list-style-type: none"> <li>• Steel – ferrous and non-ferrous metals</li> <li>• Cardboard</li> <li>• Mixed packaging waste (plastics, paper, cans, bottles)</li> <li>• Oil</li> <li>• Batteries</li> <li>• Tyres</li> <li>• E waste</li> <li>• Construction and Demolition Waste</li> <li>• Reusable items - Buy back sales/ centres</li> </ul>	

Actions Required		By When	Measures and Targets
4.1	Provide facilities that cater for all general recycling options at all waste sites.	Medium term	<p>Opportunities are created to reduce waste to landfill.</p> <p>Residents and businesses have access to facilities that accept, separate, process and market reusable and recyclable items.</p>

#### Strategy Goal 5 - Provide Community Waste Education

<b>Description</b>	Provide consistent waste minimisation and education services/programs designed to increase awareness of resource recovery and recycling opportunities
<p>The success of achieving good waste management outcomes is heavily reliant on the users being informed and educated about how the facilities operate and what is desired to achieve improvements in waste management. Therefore education of householders and business operators is a key component.</p> <p><b>Households</b></p> <p>Householders require information and advice about how waste management systems operate including collection services, how and where to dispose of unwanted items and how to segregate items for disposal at facilities. Other general information includes home composting, waste avoidance, and reuse and recycling</p> <p><b>Schools</b></p> <p>Teachers and students are a key target for waste education therefore the waste education program includes elements that focus on schools. General waste management information similar to householder's advice should form the basis</p>	

of the school program.

**Businesses**

Business and industry will require specific information about the services available in the region, both from Councils and private operators. The industry program should include advice and support on:

- Cleaner production
- Government support programs
- Waste reduction/recycling advice.

**Community activities and organisations**

Council takes a role in the public clean-up campaigns, which are promoted from time to time. The most popular of these is the Clean-Up Australia campaign which has been run annually. The focus of these campaigns is community participation and environmental awareness rather than waste diversion.

Actions Required		By When	Measures and Targets
5.1	Delivery of a Regional Community Waste Education Program	Short term	Community members including residents, schools, businesses and community groups have access to waste education resources that provide advice and assistance to enable improved waste management practices and performance.

**Strategy Goal 6 – Opportunities for regional procurement of services / shared procurement**

<b>Description</b>	Review current services provided and see what opportunities are available for regional procurement or shared services. i.e. – environmental and -groundwater and leachate monitoring services
There are a number of services that all Councils require as part of management of their waste facilities. The ability to seek regional contract/s could benefit all Councils	

Actions Required		By When	Measures and Targets
6.1	Investigate opportunities for regional procurement of services	Short term	Shared services or new regional contracts

**Strategy Goal 7 – Landfill Rehabilitation Provisions**

<b>Description</b>	Investigate any opportunities/ sites for suitable material for landfill rehabilitation that will meet the regional Councils financial obligations to final cap with clay at their landfill sites.
Council have a financial obligation to final cap their closed areas of their landfills with suitable clay. There is not a lot of clay available within the regional council’s area for Councils to be able to comply with financial legislation and licence conditions. Investigations should be undertaken to see if there are any available large clay deposits that may be suitable for final capping provisions. There are some technologies that could provide alternative options which should also be investigated.	

Actions Required		By When	Measures and Targets
7.1	Investigate opportunities for regional procurement of clay capping material or alternative approved technologies.	Short term	Landfills are able to have approved final capping to meet Councils financial obligations and licence conditions.

## 6 STRATEGY IMPLEMENTATION

The review of existing activities has identified a number of issues and has concluded strategy goals and associated actions that will assist Councils to move forward with waste management for the region. Strategy goals and associated actions are summarised in Attachment “A”.

## 7 STRATEGY CONSULTATION

After adoption of the strategy WBBROC will make the Waste Management and Resource Recovery Strategy 2015 - 2020 available to the community through its website.

### Attachment “A” – Summary of Strategy Goals and Action Plan

Strategy Goal		Actions Required		By When
1	Regional Waste collection services	1.1	Investigate opportunities if economically viable for regional collection service contracts prior to the expiry of existing contracts	Medium term
2	Landfills that meet the regions short & long term waste disposal needs	2.1	Investigate any opportunities at current landfill sites to be able to extend landfill life and acceptance of regional waste within the Wide Bay Burnett area.	Short Term
2	Regional landfills or alternative disposal options	2.2	Investigate the future waste disposal requirements for the region including the possible establishment of major regional landfill/s or other disposal options such as transport waste to a major facility.	Medium term
3	Provide opportunities to reduce waste to landfill	3.1	Provide where possible facilities that cater for all general recycling options at Council sites.	Medium term
4	Provide community waste and recycling education	4.1	Delivery of a regional community waste and recycling education program	Short term
5	Opportunities for regional procurement of services / shared procurement	5.1	Investigate opportunities to establish regional procurement of services	Short term
6	Regional collaboration	6.1	Investigate opportunities where WBB Councils can share expertise e.g. Large councils proving support to smaller councils	Short term
7	Landfill Rehabilitation Provisions	7.1	Investigate any opportunities/ sites for suitable clay material for landfill rehabilitation that will meet the regional Councils financial obligations to final cap with clay at their landfill sites or alternative capping options.	Short term

### Strategy Goals

1. Investigate Regional waste collection services
2. Investigate opportunities of current landfills that meet the regions short & long term waste disposal needs
3. Provide opportunities to reduce waste disposal to landfill.
4. Provide Community Waste Education.
5. Investigate opportunities for regional procurement of services / shared procurement.
6. Investigate regional landfills or alternative disposal options
7. Investigate Landfill Rehabilitation Provisions

## 8. GLOSSARY OF TERMS

Avoidance and reduction	Preventing waste from being generated in the first instance e.g. purchasing items with less packaging
Construction and Demolition waste (C&D)	Waste arising from construction and demolition activities e.g. bricks, concrete, metals
Commercial and Industrial waste (C&I)	Waste arising from business including waste from school, restaurants, retail, offices and manufacturing industries
Composting (green and organic waste)	Composting is the process of turning organic matter through adding moisture and waiting for the material to break down after a period of weeks or months into an organic humus which can restore and condition soils
Ewaste	End of life electronic equipment such as televisions, computers, mobile phones, stereos and small electrical appliances (excluding white goods)
Green waste	Green waste is biodegradable waste that can be composted of garden or park waste such as grass, flower cuttings and hedge trimmings as well as domestic shrubs and trees
Landfill	A facility that is licenced to accept waste for disposal and burial
Landfill diversion	Actively diverting waste away from landfill
MRF	Materials Recycling Facility – a facility where kerbside recyclables are sorted and processed into separate material streams
Municipal Solid Waste (MSW)	Waste arising from households and from other activities carried out by local government e.g. parks & gardens
MSW (domestic)	Waste arising from households, usually either collected at the kerbside or delivered by residents to transfer stations/ landfills sites.
Organic waste	Organic waste is a component of the waste stream from plant or animal sources that is readily biodegradable e.g. paper and cardboard, food waste, biosolids, green waste and timber
Problem/Priority waste	Covers a range of waste which may: <ul style="list-style-type: none"> <li>• Pose a hazard to human health or the environment e.g. chemicals, asbestos</li> <li>• Be hard to handle e.g. mattresses, or</li> <li>• Be currently uneconomical / lack of available outlets to recover or recycle material e.g. organic waste</li> </ul>
Recovery	Material which has been diverted from landfill and either reused, recycled or stockpiled for future use
Recycling	The collection, sorting and processing of materials for use as a raw material in the production of the same or similar products
Reuse	Material that does not require processing and is in suitable condition and quality to be reused in its original form, for example furniture
Transfer Station	A transfer station is a building or disposal site with bulk bins for temporary storage of waste / materials to be transferred to an end location for disposal or recycling
Waste	The Environmental Protection Act 1994 and Queensland Waste Reduction Act defines waste as: <ol style="list-style-type: none"> <li>(1) Waste includes anything, other than a resource approved under the Waste Reduction Act 2011, Chapter 8, that is; <ol style="list-style-type: none"> <li>(a) Left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity; or</li> <li>(b) Surplus to the industrial, commercial, domestic or other activity generating the</li> </ol> </li> </ol>

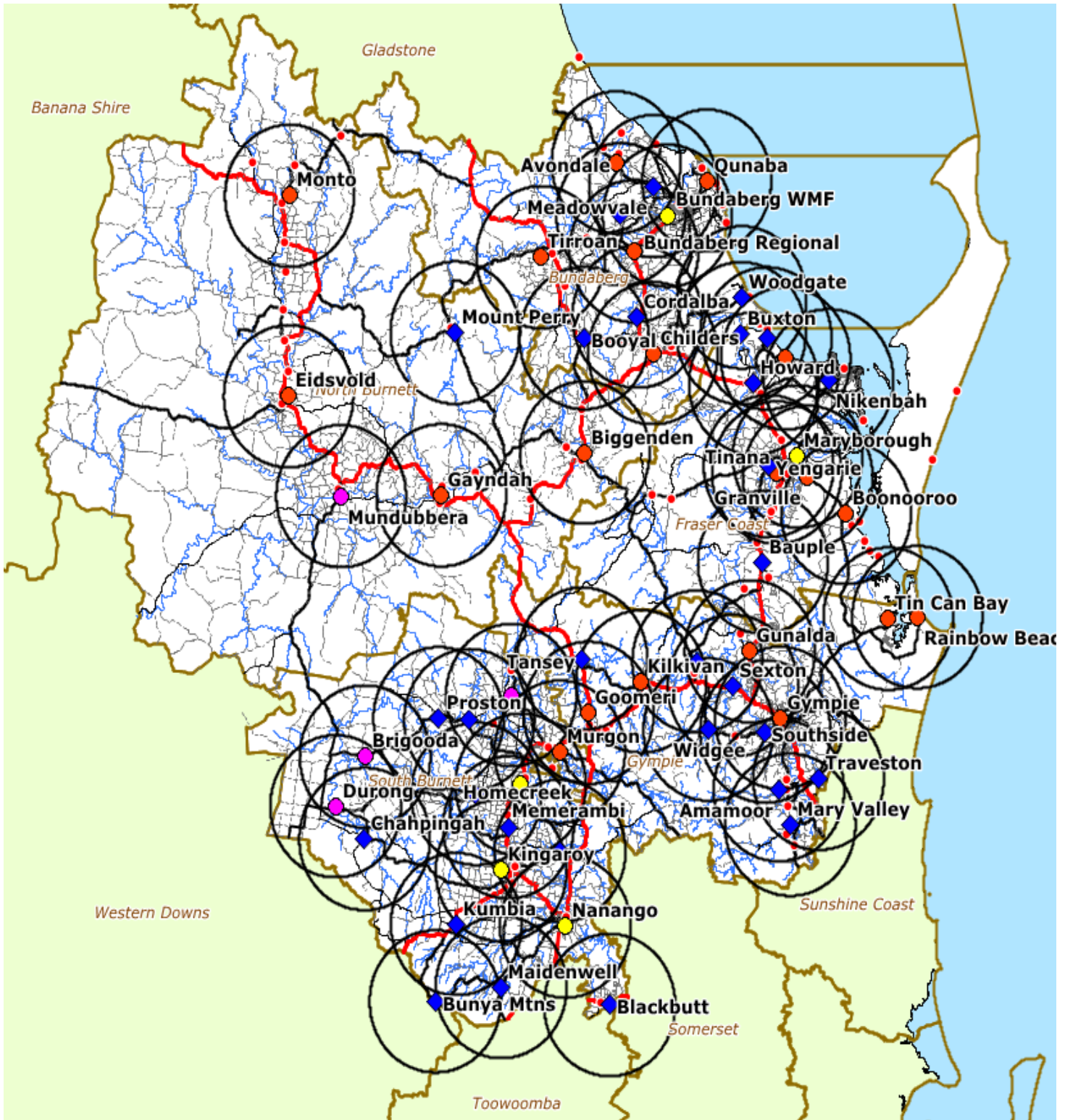


	<p>waste.</p> <p>(2) Waste can be a gas, liquid, solid or energy, or a combination of any of them.</p> <p>(3) A thing can be waste whether or not it is of value.</p> <p>(4) For subsection (1), if the approval of a resource under the Waste Reduction Act, Chapter 8, become waste –</p> <p>(a) When it is deposited of at a waste disposal site; or</p> <p>(b) If it is deposited at a place in a way that would, apart from its approval under that chapter, constitute a contravention of the general littering provision or the illegal dumping of waste provision under the Act – when the depositing starts.</p>
Waste Hierarchy	The waste hierarchy is the preferred order in which waste and resource management options should be considered with avoidance and reduction the most preferable, followed by reuse and recycling disposal with no energy recovery the least preferable option for managing waste
WBBROC	Wide Bay Burnett Regional Organisation of Councils incorporating – Fraser Coast, Bundaberg, Gympie, North Burnett, South Burnett and Cherbourg Regional Councils
WRRRA 2011	Queensland Waste Reduction and Recycling Act 2011

ATTACHMENT B



ATTACHMENT C



ATTACHMENTS "B" & "C" HAVE BEEN PROVIDED TO COUNCILS IN A1 FORMAT AND WILL BE ATTACHED TO THE STRATEGY IN A1 FORMAT WHEN FINALISED AND APPROVED