Waste Management into the Future

South Burnett

Waste Management Strategy

2015-2022

SOUTH BURNETT
REGIONAL COUNCIL

Contents

1 EXECUTIVE SUMMARY

The South Burnett Regional Council came into existence following the amalgamation of the Kingaroy, Murgon, Nanango and Wondai Shire Councils.

This is the first waste management strategy developed since the new Council was created. This strategy has focused strongly on reviewing the mix of the inherited waste facilities and services. There are seventeen (17) current waste facilities.

There is a need to plan ahead to establish an appropriate waste facility network that will provide for the future waste disposal needs of the South Burnett. This Waste Strategy has been developed after an extensive review of the existing Waste Management situation as well as the regulatory environment in which the South Burnett Regional Council's waste services exists. Council has proposed its preferred position for waste management into the future. This Strategic document has included provision to address the higher order waste hierarchy principles of Waste Avoidance, Waste Reduction and Reuse, while also concentrating on waste collection, treatment, resource recovery and disposal.

The concept of a Waste Hierarchy has been a guiding principle throughout this strategic waste planning exercise. This document also seeks to be viewed as the South Burnett Regional Council's Waste Reduction and Recycling Plan in fulfilment of the statutory requirements of the *Waste Reduction and Recycling Act 2011*.

The Council's vision is to progressively close minor landfills, many of which are already at or soon to reach capacity, and utilise transfer stations and transition to the larger regional landfills. Then ultimately one super landfill, whether locally or outside of our region, may service all of the South Burnett. Provision for some flexibility has been incorporated into the proposed waste management model in order to adopt any commercially viable alternative waste treatment technologies or innovations that may become available in the future.

The South Burnett Regional Council's Waste Management Plan 2015-2022 culminates in the proposition of six (6) Strategy Goals, with various Action items, which provides the framework for realising the Council's vision for Waste Management into the future within the South Burnett. The six (6) Strategy Goals are:

- Provide community waste education.
- Provide cost effective, safe, environmentally responsible & efficient waste collection operations.
- Provide an appropriate network of waste transfer and disposal facilities.
- Provide responsible management of waste facilities
- Provide landfills to meet the regions long term waste disposal needs.
- Provide opportunities to reduce waste to landfill.

The Action Items are summarised at section 5.5 of this document.

2 OVERVIEW

The South Burnett Regional Council (SBRC) came into existence when the Kingaroy, Murgon, Nanango and Wondai Shire Councils amalgamated in 2008. This Waste Management Plan has been in the development process for a considerable period of time. Competing priorities, limited funds and reductions in state and federal government resources have hindered its completion. However, behind the scenes Council has been working to improve, integrate and standardise its waste services activities across the shire as many of the activities of the four (4) pre-amalgamated Councils varied significantly from one another.

This document outlines the current situation of waste management in the South Burnett Region as well as detailing the Council's vision and future direction for waste management. The South Burnett Regional Council's Waste Management Plan has sought to consider all aspects of waste as it relates to the community here in the South Burnett, from waste prevention and minimisation, to waste collection, it's possible or applicable treatment, resource recovery and final disposal.

Each of the current waste facilities have been assessed and considered as to its continued inclusion in the Council's overall Waste Management Strategy for the future. Council has also identified and been planning for the security of the South Burnett's waste disposal needs into the future.

This Waste Management Plan primarily has a short term focus (i.e., the next seven years). However, the waste planning process has attempted to also take into consideration medium and longer term risks/opportunities that could have an impact upon future waste management operations.

Waste management is no longer just about throwing waste into a hole at the "dump". The landscape of waste management has become a highly regulated environment, impacted by federal and state governments as well as expectations from industry and the community. Health and safety, environmental protection, climate change, resource recovery and recycling are all key areas that must be considered, planned for and addressed. Some of these identified areas are regulated by legislation and as such Council is obligated to comply. This has implications for the South Burnett community as these requirements are enforced or passed on to the general population.

The major areas of association with waste management for most residents of the South Burnett are the Waste Collection Service and Waste Disposal. Waste collection from households is governed by state legislation, while all the other aspects of waste management that Council is involved in is largely influenced by demand, benefit to the community and what level of involvement there is by the private commercial sector. The total waste stream that Council manages is composed of waste generated by Domestic, Commercial, Industrial and Demolition customers.

The waste planning process has identified a number of issues for management and/or action. These actions have also been prioritised and are planned to be programmed into the forward capital work program and/or operational plans for the waste management area.

This strategic document has also endeavoured to anticipate what new, emerging or alternative technologies may present themselves in the future which could be beneficial to our regional local government area. Therefore, it has been essential to build in some flexibility into the present and future waste management operations in order to be able to take advantage of these situations, should they arise.

As part of this review of the South Burnett Regional Council's waste management operations Council has been and will continue to be in discussions and work with its fellow neighbouring Councils on waste management issues. It is the goal of the Wide Bay Burnett Councils to work together to provide sustainable region wide positive waste outcomes.

2.1 THE VISION

The overarching vision of the South Burnett Regional Council, as provided in the Corporate Plan, is:

Individual communities building a strong and vibrant region

The South Burnett Regional Council Corporate Plan outlines the key strategic priorities for the organisation. In regards to the Council's Waste Services section it is encapsulated under the Environment Strategic Priority, which is:

A sustainable environment, proactively and responsibly managed in partnership with the community for future generations.

The Goal to be achieved is:

ENV2 Environmentally responsible and efficient waste management

The underlying Strategies to be implemented in order achieve the above goal are:

ENV2.1 Develop and implement a Regional Waste Management Plan
ENV2.2 Provide cost effective waste management facilities and operations

2.2 OBJECTIVE

This Waste Management Strategy will detail the Council's vision and future direction for waste management within the South Burnett.

In order to give effect to the above objective a review of all South Burnett Regional Council waste operations has been undertaken with reference to the need for legislative compliance as well as taking into consideration regional and site specific constraints.

The waste planning process has established a number of key strategic goals for the waste management area. A number of critical actions have subsequently been identified which need to be completed in order for these goals to be achievable. Also, as part of the planning and review process of the waste portfolio there have been other issues identified which need to be managed and/or actioned, which have been aligned with one of the specific Waste Management Plan's strategic goals. Each of these action items has been prioritised and a proposed timeline allocated.

2.3 STRATEGY FRAMEWORK

The strategy is divided into waste management functions relating to areas that the South Burnett Regional Council has some involvement in and influence over. A description of the specific functions and services involved are provided below.

Table 1: Strategy Framework

Strategy Vision Focus	Services Involved
Waste Avoidance, Minimisation & Reuse	Community Waste Education
Collection Services	240L kerbside general waste wheelie bin (Domestic & Commercial)
	Street & Park Litter Bin collection
Waste Transfer and Disposal Facilities	Transfer Stations
	Landfill sites
	Liquid Waste Disposal Facilities
Resource Recovery	Recycling
	Alternative Waste treatment Technologies (potential for)

3 BACKGROUND

3.1 REGULATORY FRAMEWORK

The landscape of Waste Management has become a highly regulated environment, impacted by federal and state government laws and policy positions as well as being influenced by industry.

3.1.1 National Waste Policy

The National Waste Policy is an overarching federal document providing direction to the states for future waste planning and change, with specific interest on resource recovery.

The National Waste Policy is strong on advocating partnerships in order to provide beneficial outcomes. Extended Producer Responsibility programs have been the major focus at present under the Policy. For example, the collection and recycling of electronic waste (e.g. the National Television and Computer Recycling Scheme).

3.1.2 Mandatory Renewable Energy Targets

By 2020 twenty per cent of Australia's electricity is to be produced from renewable energy sources. This requirement is known as the "Renewable Energy Target (RET)". Annual targets have been set by the government and it is incumbent upon the Australian electricity retailers and large wholesale purchasers of electricity to demonstrate compliance with these annual targets. Failure or inability to meet these annual targets can result in a charge for every megawatt per hour short of the required target.

Needless to say that Australian electricity retailers are looking for and are interested in renewable energy projects for incorporation into their electricity supply mix. Waste to Energy initiatives would fit into the renewable energy category. More on this subject will be discussed later in this Waste Strategy.

3.1.3 Clean Energy Act 2011

The Clean Energy Act 2011 (Commonwealth law) provided for a national carbon levy, which was applicable to all large landfill facilities having emissions in excess of 25,000 tonnes of carbon dioxide equivalent (CO2- e) in a single year. Emission calculations had to also factor in surrounding waste facilities and their waste disposal volumes and emissions if they are within a certain distance to the landfill in question. If the particular waste facility was over the threshold amount then the carbon levy would have been applicable.

The Clean Energy Legislation (Carbon Tax Repeal) Act 2014 was given assent on 17 July of 2014 which effectively repealed the Clean Energy Act 2011. Therefore, local government has a reprieve from a carbon levy on (large) landfills at least for now.

3.1.4 Queensland Waste Avoidance and Resource Productivity Strategy 2014 – 2024

The state government released their draft Queensland Waste Avoidance and Resource Productivity Strategy in the first half of 2014. The final version of this strategy was released in January 2015. The Vision of this document is that:

"Queensland will become a national leader in avoiding unnecessary consumption and waste generation, adopting innovative resource recovery approaches, and managing all products and materials as valuable and finite resources."

The strategy is underpinned by five guiding 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 of the economic, environmental and social costs of waste generation and disposal.
4. Recognising of regional differences and opportunities.
5. Full lifecycle management of resources.

There are four (4) key objectives:

Objective 1 - Driving cultural change;

Objective 2 - Avoidance and minimisation;

Objective 3 - Reuse, recovery and recycling

Objective 4 - Management, treatment and disposal

Voluntary Action Plans are also proposed under the State Waste Strategy and will be developed by government and peak industry bodies which provide the detail under the Strategy outlining how the objectives will be achieved.

3.1.5 Environmental Protection Act 1994 (QLD)

The Environmental Protection Act 1994 and its subordinate legislation (Regulation and Policies) are Queensland's legislative framework to protect Queensland's environment, while allowing for ecologically sustainable development.

This legislation impacts directly upon all local governments, including the South Burnett Regional Council, as landfills must be licensed/registered by the State Department of Environment and Heritage Protection (DEHP).

The planning, location and design of a waste facility is regulated by the abovementioned legislation and the associated approval processes within DEHP.

The day to day operations of a waste facility are controlled by conditions imposed on the Council's licence/registration during the application and approval process, which are then monitored and enforced by DEHP.

3.1.6 Waste Reduction and Recycling Act 2011 (QLD)

The Waste Reduction and Recycling Act 2011 objectives are 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.

In order to achieve these objectives the legislation provides for the following:

a) preparation, implementation and maintenance of a waste management strategy for the State [The state government released their Draft Queensland Waste Avoidance and Resource Productivity Strategy in April 2014. Further specific details relating to the State Waste Management Strategy are provided above under the separate regulatory framework heading entitled Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024.];

b) preparation of State, local government and industry strategic waste management plans. [There is also a requirement for local government to prepare a waste reduction and recycling plan. The South Burnett Regional Council has endeavoured to incorporate the requirement of

this obligation into their Waste Management Plan document.];

c) reporting requirements (including waste and recycling data) for the State, local governments, business and industry [Local government was reporting this data to DEHP on a monthly basis, but the state has recently changed to this reporting frequency to quarterly.];

d) a waste disposal levy as well as banning particular waste disposal. [The state government did implement a waste levy in 2011, which was reduced to zero once the change of government occurred in 2012. This particular provision however presently still exists within the legislation and could be established again should the incumbent government wish to.] ;

e) identifying priority products and associated management tools;

f) preparation, implementation and maintenance of a priority product statement;

g) providing for product stewardship schemes;

h) waste tracking requirements;

i) granting approvals of resources for beneficial use;

j) prohibiting particular conduct in relation to waste [Littering and waste dumping offences are now contained within this particular piece of legislation and also provides for public reporting of these types of offences direct to DEHP.];

k) appointing authorised persons to investigate matters arising under this Act and otherwise to enforce this Act;

3.1.7 Australian Packaging Covenant

The Australian Packaging Covenant is an agreement between government, industry and community groups to fund solutions to address packaging sustainability issues.

The Australian Packaging Covenant (APC) specifies that its aim is, "to change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter."

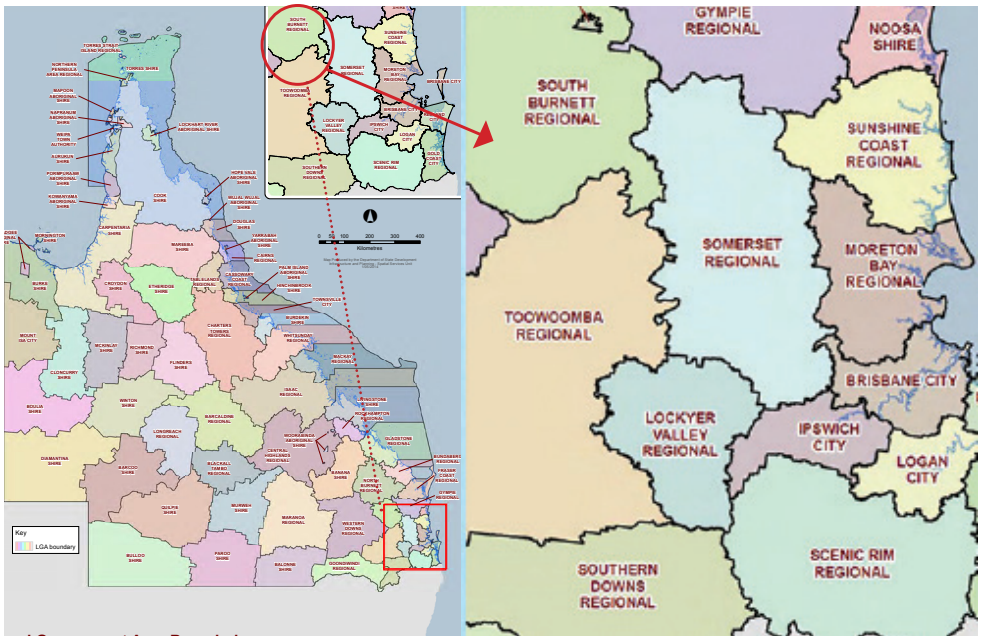
To help give effect to this aim brand owners with a turnover larger than $5 million are required to either sign the APC or comply with the National Environmental Protection Measure (Used Packaging Materials) 2011. Brand Owners who sign up to the APC pay a yearly contribution. These monies are used to resource the various packaging projects that are submitted for funding. Projects must be sustainable, cost effective, deliver savings against identified targets and must help towards the achievement of APC's goals, namely improving packaging design, recycling of packaging and product stewardship through the established supply chain.

3.2 THE SOUTH BURNETT REGIONAL PROFILE

The South Burnett Regional Council (SBRC) was formed in March 2008 as a result of state-wide local government amalgamations. The Councils that amalgamated to become the South Burnett Regional Council were the Kingaroy Shire Council, the Murgon Shire Council, the Nanango Shire Council and the Wondai Shire Council.

The South Burnett Regional Council is located in South-East Queensland. The new SBRC region covers an area of 8 399 km2 and is only a short drive away from Brisbane, Toowoomba and the Sunshine Coast.

Figure 1: South Burnett Regional Council Locality Map within Queensland



Source: Queensland Government, Department of Local Government, Community Recovery & Resilience) 2014

3.3 POPULATION TRENDS AND WASTE GENERATION PROJECTIONS

3.3.1 Population Projections

Queensland Treasury and Trade has advised that the population projections for the South Burnett continue to be positive into the future. The Queensland Government estimates a modest increase for the South Burnett of 1.1% per year over the next 25 years. The state of Queensland in comparison is expected to continue to increase in population by 1.9% over the same period.

Table 2: South Burnett Population Projections

Year	2016	2021	2026	2031
Projected Population	33,840	35,731	37,594	39,509

The implications of this are that the number of persons in the South Burnett is expected to increase from 32,641 (30 June 2013) to 39,509 persons by 2031.

3.3.2 Total Waste Disposal Projections

Future planning for waste disposal volumes requires some extrapolation of the present waste situation, while factoring in some known variables. If the recycling, reuse and waste generation factors all stay the same over the coming years then based upon the estimated population projections, the amount of waste that would be expected to be generated in the South Burnett are provided below.

Table 3: Projected future Total Waste (Tonnes) to be Disposed of within the South Burnett

Year	2016	2021	2026	2031
Total Waste (tonnes)	19,951	21,066	22,164	23,293

These projections could be less if further waste reduction, diversion or recycling measures are implemented in future years.

3.4 CURRENT WASTE SITUATION

3.4.1 Waste Collections – Current

The South Burnett Regional Council's inherited waste collection services consisted of:

- A weekly 240L general waste wheelie bin service (domestic and commercial customers, provided by a mix of private contractor and Council day labour);
- A weekly 240L split wheelie bin service catering for recyclables items and general waste (domestic customers only in the old Nanango shire and provided by private contractor);
- 1, 2 or 3m3 bulk bins (normally a service provided to a commercial customer. Service frequency was able to be provided six (6) days a week if required. This service was also provided by a mix of private contractor and Council day labour); and
- 10 or 27m3 skip bins (services provided to a large commercial client or at a transfer station. This service was also provided by a mix of private contractor and Council day labour).

These waste collection services have changed since the new waste collection contract commenced on 1 July 2014. The details of these changes are provided below.

3.4.1.1 240L Wheelie Bin Waste Collection

The waste service with the highest profile is the kerbside waste collection service, which is provided via wheeled bins. A weekly wheeled waste bin service is provided to premises in the major urban areas. A number of outlying and low-population rural areas are also provided with services depending on their proximity to townships and proximity to current collection vehicle routes. There are 13,279 wheelie bins serviced weekly throughout the South Burnett.

The South Burnett Regional Council has continued to retain the obligation to provide waste services to its domestic clientele under the latest waste collection contract. It has also due to economies of scale and efficiencies continued to provide this 240L wheelie bin service to the commercial businesses within the designated waste collection/service area. Council has however chosen to outsource the responsibility of actually providing the delivery of those services to a private contractor.

The Nanango shire residential community did have an exclusive weekly 240L split wheelie bin, for general waste and recycling, for six (6) years or so during the period of the previous Nanango waste collection contract, which concluded 30 June 2014. Segregated uncontaminated recyclables, namely cardboard, paper, aluminium cans, steel containers and plastic containers, where stored and then transported to Toowoomba or Brisbane for sorting and processing through a Material Recovery Facility. Further details on the recyclables collected via the Nanango kerbside split bin can be seen at Table 16: Nanango Split Bin Recycling Data by financial year (Tonnes), see section 4.3.2.

Resource restrictions and time limitations posed by the expiry of the previous waste collections contracts (30 June 2014), that had been in place prior to amalgamation, meant that this strategic document was not able to be released and/or finalised before the decision relating to the waste collection contract needed to be made. The waste collection contracts were soon to expire and this aspect of the waste management program needed to be addressed as a matter of priority. A new waste collection arrangement was going to have to be organised

irrespective of any strategic waste planning process undertaken and any formal document that was to be subsequently created.

The preparation time required for the development of a comprehensive waste collection tender can be up to eighteen months and involves a detailed review of the service requirements/ standards and the creation of the actual tender documents. Then time is required for the potential contractors to consider the tender and submit a proposal, which can be up to six months. Once submissions are received there is the assessment of tender submissions and the awarding of a contract, which can take up to three months. Then finally the last stage involves the preparation for contract implementation, which can require from nine up to twelve months. The contract implementation phase involves organising equipment, plant, vehicles, manufacture of waste bins & waste bin roll out. The time required for the whole waste tendering process can be just over three years, if done thoroughly.

As part of the initial evaluation for the development of a waste collection tender Council did consider whether it would undertake the waste collection services totally by day labour or whether it would just contract out the delivery of those services. Initially Council had determined that its Waste Services section would put in an in house bid as part of the waste tendering process so that any final decision would be open the best value for money solution. However, in the end Council decided that its own Waste Services section would not be submitting. Council also considered what type of services it wanted as part of a new kerbside waste collection service.

The decision about the length of the South Burnett Regional Council waste collection contract was influenced by discussions with other Councils within the Wide Bay Burnett region. The Wide Bay Burnett Regional Organisation of Councils Inc (WBBROC) was formed in 2000 to represent the interests of all councils within the Wide Bay Burnett region. Its membership comprises of the the Bundaberg Regional Council, the Cherbourg Aboriginal Shire Council, the Fraser Coast Regional Council, the Gympie Regional Council, the South Burnett Regional Council and the North Burnett Regional Council. The key goals of WBBROC are to:

- Deliver improved economic outcomes for the region
- Drive infrastructure development and investment in the region
- Facilitate planning at a regional level
- Provide collaborative leadership for the region.

A subsidiary group, the Waste and Recycling Advisory Committee (WRAC), which reports to WBBROC was recently established. The Terms of Reference for the WBBROC's Waste and Recycling Advisory Committee is to:

Advise WBBROC on matters related to regional waste and recycling service provision;

a) Make recommendations to WBBROC concerning prioritised regionally significant waste and recycling issues;

b) Making recommendations to WBBROC to assist in the implementation of prioritised regionally significant waste and recycling service provision projects;

c) Engaging the community, business and industry sectors concerning waste and recycling processes in the Wide Bay Burnett region; and

d) Where necessary - advocating for community, business and industry and local government in the Wide Bay Burnett Region.

One of the outcomes of this group has been for all member Councils to align their waste collection contracts to coincide and expire with other Councils within the WBBROC Region. This decision was made in relation to exploring the possibility of having one large waste collection contract across the whole wide bay region. To this end the South Burnett Regional Council's new waste collection contract commenced on 1 July 2014 and will continue until the first contract expiry date, namely 2 July 2022.

3.4.1.2 Bulk Waste Collection

The South Burnett Regional Council post amalgamation was providing bulk bin (1, 2 or 3m3) services to commercial customers via a mix of day labour and private contractor. Servicing regimes and frequencies varied greatly depending upon which old local government area the service had historically been provided in.

Bulk waste collection includes commercial waste, construction and demolition waste.

Toward the end of the old waste collection contracts the South Burnett Regional Council was servicing 183 bulk bins per week.

Council noted over a period of time leading up to the expiry of the old waste collection contracts that many of its commercial bulk bin customers had cancelled their service and were dealing direct with a private waste collection contractor. The old waste collection contracts did not expressly prevent this activity nor would the national anticompetitive legislation permit such a position to be held. This erosion of Council's customer base meant that the critical mass required in order provide a cost effective service to its customers was becoming difficult to maintain. Further, if Council went out to tender and specified that it had a certain number of commercial bulk bin customers and a contractor tendered on that basis and then by the time the contract commenced the commercial customer base had further declined and proceeded to do so over the life of the new waste collection contract then the ongoing viability of that particular service could be jeopardised. Additionally, there were concerns over transparency and traceability of waste where Council and non-Council customer waste was being collected by the same contractor in the same vehicle.

At the time of considering this situation there were three separate commercial waste collection companies operating in the South Burnett area. As there seemed to be sufficient competition in the local market for commercial bulk waste collection services Council determined to no longer provide this service. Therefore, the waste collection tender reflected this position and all bulk commercial waste services within the South Burnett are now provided by private companies and their services are totally unrelated to any Council involvement.

3.4.1.3 Skip Bin Waste Collection

The South Burnett Regional Council presently has a number of waste transfer stations. Most of these are services with either 10 or 27m3 skip bins. These large skips bins are serviced by a Roll On Roll Off (RORO) vehicle. After discussions with other Councils and waste collection contractors during the development of the waste collection tender it was decided by Council that it would retain control of this aspect of the waste management program. Servicing capacity has also been evaluated and reviewed in order to accommodate the Council's proposed future waste strategy in relation to its waste facilities.

3.4.1.4 Waste Collection Charges

The pricing for a waste collection service was/is itemised separately on the rates notices. During the 2013/2014 financial year domestic customers paid $145 for a weekly 240L waste collection service and commercial customers paid $284. Generally speaking the commercial cleansing charge was more expensive due to the extra level of run in service provided to many commercial properties. However, this added level of service was identified as "not essential" and was removed from the latest waste collection contract. The waste industry norm is not to provide a commercial "run in" service and it was further recognised that this mechanism could be a way to reduce the waste cleansing charge to commercial businesses by reducing this particular aspect of their level of service.

The waste cleansing charge for a domestic service has been held at $145 a year for a weekly general waste collection service for the 2014/2015 financial year. No Consumer Price Index (CPI) adjustment has been applied to this service this year. The waste cleansing charge for commercial business has been reduced by $96 a year, with the 2014/2015 financial year commercial waste cleansing charge being only $188 per service for the year.

3.4.1.5 Designated Waste Collection/Service Area

Until 1 July 2014 there had been three (3) separate waste collection contracts governing the old Murgon, Nanango and Wondai local government areas. Kingaroy was still under the day labour arrangements that were established under the then Kingaroy Shire Council. Each contract or day labour arrangement were different to each other. The new waste collection contract provided the opportunity to bring all of waste collection within the South Burnett into uniformity. The designated waste service area is shown in Appendix 5.

The designated waste collection area is a defined area, which under the local government legislation provides the mechanism whereby if a 240L wheelie bin waste collection service is provided within that area then that service is mandatory to the customer.

3.4.1.6 Street and Park Litter Bins

A number of different sized (cigarette butt bins to 20L waste bins through to 240L wheelie bins) waste container options are provided throughout the South Burnett, largely due to the individual decisions made by the previous local government administration prior to amalgamation. There presently is no public place recycling services provided.

The street litter bins are generally provided where high volume pedestrian traffic is encountered on sections of major streets in the main towns and villages throughout the South Burnett. Park bins are provided to Park localities on an as needed basis according to visitation and utilisation of these sites. Service areas and sites are monitored and reviewed, with changes being implemented where deemed necessary.

Street and Litter bins were serviced by a combination of day labour and contracted services.

South Burnett Regional Council reviewed the service level and delivery mode of the servicing of street and park litter bins as part of the new waste collection contract. Based upon the price tendered for street and park litter bins it was more cost effective for Council to retain serving these. By retaining street and litter bin collections it provides capacity for Council to respond to and clean up orphan illegal dumping incidents, roadside litter, inappropriate deposition of waste at unsupervised waste facilities, dead animal collection (Kingaroy only) and other essential waste collection services when necessary.

3.4.2 Waste Facilities – Current

The South Burnett Regional Council presently has seventeen (17) waste facilities. See Appendix 4 for Shire Map with location details.

There are no privately operated transfer stations or landfills in the South Burnett currently and there are no known plans for the establishment of any privately operated sites.

As South Burnett Regional Council is the only landfill provider within the South Burnett it is therefore charged with the responsibility to provide long term waste disposal capacity. It is therefore important to know the useful life of all the landfills within the region so that the long term waste disposal for the shire can be managed.

To be able to determine a life expectancy estimate for a landfill it involves calculating the remaining volume (available airspace) for that landfill area along with the rate or volume of waste being disposed of at that particular site.

It is important to note that this estimate is not a one off figure. A landfill life expectancy value requires continual future review and verification as these calculations will be impacted by any changes to the waste volumes going to landfill which could be caused by changes to the waste facility network, recycling efforts, waste avoidance & minimisation or reuse initiatives. This information then helps to develop what is known in the industry as a Closure Plan. A Closure Plan includes not only the useful landfill life information, but the final design profiles and ongoing monitoring arrangements.

Council currently has eight operating landfills. A number of these receive low volumes of waste and are provided for residential localised use only. It is important to review if this number of landfills is necessary as this type of facility can have a significant environmental footprint as well as high operating costs.

3.4.2.1 General South Burnett Waste Data

The South Burnett Regional Council currently has a total of seventeen (17) waste facilities and only eight (8) of these sites have a landfill integrated into the site.

Is it estimated that approximately 19,244 tonnes of waste is disposed of to the eight (8) landfills located within the South Burnett Regional Council area, based on 2013 waste figures. This would equate to an estimated 590 kilograms of waste per person per year being disposed of to landfill within the South Burnett. This equates to approximately 11 kilograms per week or 1.6 kilograms per person per day of waste being generated for disposal.

Table 4: Estimated Landfill Disposal tonnages

Landfill Location	Brigooda	Cloyna	Durong	Hivesville	Kingaroy	Murgon	Nanango	Wondai	TOTAL
Estimates calculated on 2013 data	52	78	114	156	9,376	1,250	6,352	1,866	19,244
Licensed for tonnes/ yr	50-2000	50-2000	50-2000	50-2000	5000-10000	2000-5000	5000-10000	50-2000	
Landfill lifespan expectancy	1	5	5	1	15	15	15	14	
Proposed Future Use in the next 10 years	Transfer Station	Transfer Station	Transfer Station	Transfer Station	Continuing Landfill	Continuing Landfill	Continuing Landfill	Continuing Landfill	

Table 5: Estimated tonnages being removed from the various transfer stations throughout the South Burnett

Transfer Station	Proston	Homecreek	Chahpingah	Kumbia	Memerambi	Maidenwell	Blackbutt	Wattlecamp	Bunya Mountains	TOTAL
Estimates calculated on 2013 data	117	234	22	585	234	108	208	175	40	1,723
Landfill Destination	Wondai	Wondai	Kingaroy	Kingaroy	Kingaroy	Nanango	Nanango	Nanango/ Kingaroy	Nanango/ Kingaroy	

Note: These tonnages for the transfer stations have already been accounted for in the applicable landfill disposal figures in Table 4 above.

The Kingaroy Waste Facility had a weighbridge installed in the 2011/2012 financial year utilising state government funds from the short lived Waste Levy. This is the only site within the South Burnett jurisdiction to have a weighbridge.

The Kingaroy site is fully supervised, which enables better control of, security and capture of waste data. Of the total seventeen (17) waste facilities only four (4) of these waste facilities are supervised. A further two (2) are fully automated with keypad activated gates and surveillance cameras monitoring the entire site.

Waste data collected at the Kingaroy and Nanango sites is electronically captured and then transmitted for central storage at the Kingaroy Regional Office. Other sites capture waste disposal data based upon volumetric estimates. The active landfill areas at the four (4) major landfill sites are surveyed on a regular basis.

Table 6: Estimate of Waste Source categorisation for 2013/2014

Type		Tonnes	% of Total waste
Waste to Landfill	Waste collected from the kerbside 240L wheelie bins	9,000	29.91%
	Waste delivered directly to a disposal facility by domestic residents (Self Haul)	1,533	5.09%
	Public Place	101	0.34%
	Construction & Demolition	6,435	21.39%
	Commercial and Industrial	2,231	7.41%
	Total Waste to Landfill	**19,244**	**64.14%**
Reuse and Recycling	Clean fill	3,750	12.46%
	Green Waste	7,000	23.26%
	Concrete	40	0.14%
	Total Reused or Recycled	10,790	35.86%
	Total Waste & Resource Recovery Amounts	30,034	100%

Construction and Demolition

Segregated Construction and Demolition (C&D) waste including concrete, bricks and tiles is stockpiled at the Kingaroy Waste Facility. In the 2013/2014 financial year this stockpile of 6373m3 was crushed into reusable aggregate. This recycled aggregate is being sold commercially as well as being utilised internally by Council for drainage and road works (where applicable). The product must be stockpiled until a large amount is available in order to make it economically viable to bring in the mobile crushing units. This amount of construction waste/resource took some 10 years to accumulate. At other sites it is not feasible to stockpile this particular waste resource due to the small amounts received or lack of space available to stockpile. At sites where C&D is not stockpiled this waste is utilised, where possible, for the formation of the next new waste cell.

Green Waste

South Burnett Regional Council attempts to divert green waste from landfill. Green waste at the Kingaroy and Nanango waste facilities is stockpiled and turned into mulch, which is then provided free of charge to residents.

The economics of transforming green waste into mulch as a reusable resource is not viable at all waste facilities due to the volume of green waste received and in some case the remote locality.

A large mulching unit is required to be deployed in order to mulch the green waste material. The cost to mobilise this private plant is rather expensive and that is why Council first has to stockpile large quantities of the green waste before arranging to have it mulched. It is also a licence condition issued and administered by the State Government for some of our largest waste facilities that Council is not permitted to burn green waste.

The quality of the green waste mulch is rather low due to contamination of the green waste by residents. That is, residents do not generally bring in green waste free of any other contaminants. Residents put plastic, metal, polystyrene, cloth material, etc. in with their "green waste" loads hiding it beneath the bulk of the green waste. It is too costly to remove all of the contaminants. Council continues to encourage all contributors to the green waste stockpiles to ensure that they only bring in "clean" green waste.

A summary of green waste volumes diverted from landfill is shown below.

Table 7: Estimated Green Waste volumes (m3) diverted from Landfill

Landfill Location	Blackbutt	Cloyna	Hivesville	Kingaroy	Murgon	Nanango	Wondai	Total
Estimates Volume (m^3)	9,000	3,000	5,000	68,000	12,000	18,000	9,000	124,000

Scrap Metal

Council provides for the recovery of scrap metal as a resource at sites where it is viable to collect this material from. A summary of estimated tonnages of this resource is provided below:

Table 8: Scrap metal recovery tonnage

Waste Facility Location	Brigooda	Cloyna	Duron	Hlvesville	Kingaroy	Murgon	Proston	Wondai	Total
Total net tonnage per year	6	45	24	71	681	182	29	100	1,138

The South Burnett Regional Council enters into Agreements with scrap metal companies from time to time for the removal of this resource from its various waste facilities. Council's call for quotes process from competitors within the scrap metal industry, prior to entering any Agreement, ensures that it maximises its return.

Batteries

Table 9: Tonnes of batteries recycled

Waste Facility Location	Kingaroy	Murgon	Wondai	Total
Total tonnes recycled in 2013	5	0.25	0.073	5.323

The low tonnages experienced at the Wondai and Murgon waste facilities may be due to these sites being unsupervised and theft of this resource could be occurring. The batteries at the Nanango, Wattlecamp and Blackbutt waste facilities are still recycled, but are done so by the onsite contractors.

Waste Oil

Table 10: Estimated waste oil recovered

Waste Facility Location	Cloyna	Kingaroy	Murgon	Proston	Wondai	Blackbutt	Kumbia	Nanango	Memerambi	Total
Total Litres recovered per year	800	10,400	800	750	2,000	3,200	3,400	3,100	700	25,150

The waste oil is collected and removed by a licensed regulated waste transport company. Approximately 25 tonnes or 25,000 L of waste oil is recycled or reused per year.

Agricultural Chemical Drums

The South Burnett Regional Council actively participates in the drumMUSTER program. drumMUSTER is a national product stewardship program that is supported by agvet chemical manufacturers, industry stakeholders (which includes member and farming associations), state and local governments. This worthwhile initiative continues to divert many plastic and steel agricultural chemical drums from landfill.

Council with the assistance of the drumMuster recycled 3,225 agricultural drums during the 2013/2014 financial year. This is drastically down on previous years and may be linked to the less

than favourable weather and farming conditions experience during 2013/2014.

Council continues to encourage users of agricultural chemicals to avail themselves of this worthwhile and successful program. It is worthwhile to note that the disposal of the agricultural drums is at no further expense to the purchasers of these containers.

Table 11: Number of Agricultural Chemical Drums recovered and recycled

Financial Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Total number per year	6,351	2,963	5,106	9,187	10,417	5,682	14,209	8,843	3,325

Tyres

There is approximately 60 tonnes of tyres prevented from going to SBRC's Landfills per year. Tyres are deemed to be a "regulated waste" and their disposal must be tracked under the State Environment legislation. Tyres can only be freighted by a licensed regulate waste transporter to an approved disposal location.

Table 12: Types and number of tyres received at the various waste facilities within the South Burnett

Type of Tyre	Passenger	Light Truck	Truck	Other	With Rims	Total
Total net tonnage per year	2,197	1,775	380	479	227	5,058

3.4.2.2 Waste Facility Site Specifics Details

The specifics of each waste facility site are as follows:

Waste Facility - Luck Road KINGAROY

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Major Landfill & Transfer Station • 27m³ Skip Bin Transfer Station • Weighbridge • Landfill receives waste from domestic and commercial waste collection trucks direct • Reuseable items recovered through the "Recycle Shop" partnership	• Supervised by Contractor	• Domestic and Commercial • Limited hazardous waste	• Green waste • Scrap Metal and E-waste • Construction & Demolition waste (concrete, tiles & bricks) • Waste Motor Oil • Batteries • Tyres • Paint • Cardboard

Strengths/Benefits:

- Largest Waste Facility within the Shire
- Able to receive limited amounts of asbestos waste
- Weighbridge at site (provided under the then state government's waste levy funding arrangement)
- Fifteen (15) years of waste disposal capacity left
- Close to Kingaroy
- Good infrastructure
- Supervised and open seven (7) days a week from 8am to 5 pm
- Good sealed bitumen road access to site and all weather access on site (gravel)?
- Access to electricity and provision for water (rainwater tank) & sewerage (septic)

Weaknesses/Risks/Threats:

- Only fifteen (15) years of waste disposal capacity left. Need to start planning for further waste disposal options
- Access to site gets cut off when the Stuart River is flooded.
- Green waste coming in, particularly from domestic loads, is contaminated
- Continuation of cardboard recycling from contractor
- Not able to provide a lot of recycling options
- Size of site is limited. Not able to stockpile large quantities due to space restrictions
- Increased compliance required by the state government's environment department

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improve the quality of the green waste mulch and perhaps further value add (e.g. compost) and sell final end product.

Waste Facility - Kearneys Road KUMBIA

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m³ Skip Bin Transfer Station	• 6.00am to 6.00pm by automatic gate access with surveillance cameras operating	• Domestic waste only received to the skip bins	• drumMUSTER • Green waste • Scrap metal • Waste Motor Oil • Batteries

Strengths/Benefits:

- Good infrastructure
- Camera surveillance with automated gate access. Open seven (7) days a week from 6am to 6pm.
- Servicing large catchment area
- Local community generally looking after and using the facility well
- Provision for landfilling in a disaster/emergency
- Electricity connected
- Good sealed bitumen road access to site & all weather access around site (sealed bitumen/gravel)

Weaknesses/Risks/Threats:

- Distance to Kingaroy
- Limited Recycling options
- Green waste coming in is contaminated

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improving green waste bringing brought in so that it is "clean".

Waste Facility - Staines Road CHAPINGAH

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Transfer Station for local use only • 10m^3 Skip Bin Transfer Station	• Local domestic resident access only	• Domestic waste only received to the skip bins	• Nil

Strengths/Benefits:

- Provides a waste service to the western areas of the Shire
- Locals able to access at any time
- All weather gravel road access to site

Weaknesses/Risks/Threats:

- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Distance to Kingaroy
- Unsupervised while open. Potential safety implications.
- Not all weather access around transfer station site.
- Windblown litter due to open skips bins.
- No access to utilities – no electricity, sewerage or water connection close by
- Access to site is restricted in a flood.

Opportunities:

- Eliminate this site due to size, number of customers it services and catchment location or improve the current transfer station infrastructure

Waste Facility - Recreation Driven MEMERAMBI

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m³ Skip Bin Transfer Station	• Local resident access only via key system	• Domestic waste only received to the skip bins	• Aluminium Cans • Batteries • Glass • Waste Motor Oil • Scrap Metal

Strengths/Benefits:

- Good infrastructure
- Previously a clean and tidy waste facility
- Close to Kingaroy

Weaknesses/Risks/Threats:

- Vandalism
- Misuse of facility. (i.e., non-approved waste being received, commercial waste entering – perhaps residents giving their key or access to others in breach of the Key Agreement)
- Green waste coming in (this site was not taking green waste when supervised)
- Not able to provide a lot of recycling options
- Land leased from Department of Natural Resources
- Electricity connected
- Good sealed bitumen road access to site and all weather access on site (sealed bitumen).
- Access to site is restricted in a flood.

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Eliminate this site due to the close proximity to Kingaroy and because a kerbside waste collection service is already provided to the Memerambi township.
- Stop green waste from being received at this site.

Waste Facility - Charleston Road WONDAI

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Major Landfill and Transfer Station • 10m³ Skip Bin Transfer Station • Landfill receives waste from domestic and commercial waste collection trucks direct	• 6.30am to 5.00pm unsupervised. • Commercial (by arrangement) and Domestic Waste received	• Domestic and commercial • Limited hazardous waste	• Green waste • Scrap Metal and E-waste • Waste Motor Oil • Batteries • Clean fill • Waste Cooking Oil

Strengths/Benefits:

- One of the four (4) major landfills within the Shire
- Fourteen (14) years of waste disposal capacity left
- Close to the Wondai township
- Open seven (7) days a week. Open between 6.30am and 5.30pm
- Good sealed bitumen road access to site & all weather access around site (gravel)
- Capacity to deal with waste in a disaster/emergency/flood.

Weaknesses/Risks/Threats:

- Only fourteen (14) years of waste disposal capacity left. Need to start planning for further waste disposal options
- Unsupervised while open. Theft of scrap metal and other recyclable/reusable items occurring. Potential safety implications. Loss of commercial landfill fees.
- Green waste coming in is contaminated
- Limited recycling options provided
- Close to the next major landfill being Murgon.
- Increased compliance required by the state government's environment department
- Windblown litter due to open skips bins.
- No immediate access to utilities – no electricity, sewerage or water connections close by

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improve green waste bringing brought in so that it is "clean".
- Establish one transfer station/waste facility for the Wondai and Murgon area for the public to access. This could be a new site or one of the two (2) existing facilities modified.

Waste Facility - Oberles Road HIVESVILLE

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Rural Trench Landfill	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Green waste • Scrap Metal and E-waste • Clean fill

Strengths/Benefits:

- Close to the Hivesville township
- Locals able to access at any time
- Good sealed bitumen road access to site & all weather access around site (gravel)
- Capacity to deal with waste in a disaster/emergency/flood.

Weaknesses/Risks/Threats:

- Less than one (1) year of waste disposal capacity left.
- Unsupervised. Theft of scrap metal and other recyclable/reusable items occurring. Potential safety implications.
- Inappropriate disposal from time to time requiring clean up
- Green waste coming in is contaminated
- Limited recycling options provided
- Very close to the Proston waste facility
- Increased compliance required by the state government's environment department
- No access to utilities – no electricity, sewerage or water connection close by
- Windblown litter

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improve green waste bringing brought in so that it is "clean".
- Eliminate this site once it is full due to the close proximity to Proston or establish a Transfer Station.

Waste Facility - Beresford Street PROSTON

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m³ Skip Bin Transfer Station	• 6.00am to 6.00pm by automatic gate access with surveillance cameras operating	• Domestic waste only received to the skip bins	• Green waste • Scrap metal • Waste Motor Oil • Batteries • Clean Fill

Strengths/Benefits:

- Good infrastructure
- Camera surveillance with automated gate access. Open seven (7) days a week from 6am to 6pm.
- Close to the Proston township
- Local community generally looking after and using the facility well
- All weather access around site (gravel)
- Electricity connected to site at the automatic gates
- Capacity to deal with waste in a disaster/emergency/flood.

Weaknesses/Risks/Threats:

- Distance to Wondai
- Limited Recycling options
- Green waste coming in is contaminated.
- Increased compliance required by the state government's environment department
- Gravel road access up to landfill site from Proston township

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improving green waste bringing brought in so that it is "clean".
- Very close to the Hivesville waste facility

Waste Facility - Proston Road BRIGOODA

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Rural Trench Landfill	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Clean fill

Strengths/Benefits:

- Services a large catchment area as well as it servicing the western area of the Shire
- Locals able to access at any time
- Good bitumen road access to site.
- Capacity to deal with waste in a disaster/emergency/flood.

Weaknesses/Risks/Threats:

- Less than one (1) year of waste disposal capacity left
- Unsupervised. Potential safety implications.
- Distance to Wondai
- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Increased compliance required by the state government's environment department
- Not all weather access around site (gravel)
- No access to utilities - no electricity, sewerage or water connection close by
- Windblown litter

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Eliminate this site as it will have reached its disposal capability or establish a Transfer Station.

Waste Facility - Chinchilla Highway DURONG

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Rural Trench Landfill	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Clean fill • Scrap Metal

Strengths/Benefits:

- Services a large catchment area as well as it servicing the western area of the Shire
- Locals able to access at any time
- Good bitumen road access to site

Weaknesses/Risks/Threats:

- Less than five (5) years of waste disposal capacity left
- Unsupervised. Potential safety implications.
- Distance to Wondai & Chahpingah
- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Increased compliance required by the state government's environment department
- Not all weather access around site (gravel)?
- No access to utilities - no electricity, sewerage or water connection close by
- Capacity to deal with waste in a disaster/emergency/flood.
- Windblown litter

Opportunities:

- Introducing additional recycling prospects. (These howeer may not be self funding)
- Eliminate this site as it is close to Chahpingah or establish a Transfer Station.

Waste Facility - Chinchilla Highway HOME CREEK

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m³ Skip Bin Transfer Station	• Local resident access only via key system	• Domestic waste only received to the skip bins	• Nil

Strengths/Benefits:

- Services a large catchment area.
- Good road (sealed bitumen) access to site and all weather access on site (sealed bitumen) for public area.

Weaknesses/Risks/Threats:

- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Unsupervised. Potential safety implications.
- Vandalism of locks
- No access to utilities - no electricity, sewerage or water connection close by
- Capacity to deal with waste in a disaster/emergency/flood
- Windblown litter
- Access to the loading and unloading area is not all weather.

Opportunities:

- Eliminate this site due to its proximity to the Wondai waste facility
- If retain site, introduce additional recycling prospects. (These however may not be self funding)

Waste Facility - Borchert Hill Road MURGON

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Major Landfill and Transfer Station • 10m³ Skip Bin Transfer Station • Landfill receives waste from domestic and commercial waste collection trucks direct	• 6.30am to 5.00pm unsupervised • Commercial (by arrangement) and Domestic Waste received	• Domestic and commercial • Limited hazardous waste	• Green waste • Aluminium Cans • Scrap Metal and E-waste • Waste Motor Oil • Batteries • Clean fill

Strengths/Benefits:

- One of the four (4) major landfills within the Shire
- Fifteen (15) years of waste disposal capacity left
- Close to the Murgon township
- Open seven (7) days a week. Open between 6.30am and 5.30pm
- Good road (sealed bitumen) access to site & all weather access around site (gravel)?

Weaknesses/Risks/Threats:

- Only fifteen (15) years of waste disposal capacity left. Need to start planning for further waste disposal options
- Unsupervised while open. Theft of scrap metal and other recyclable/reusable items occurring. Potential safety implications. Loss of commercial landfill fees.
- Green waste coming in is contaminated
- Limited recycling options provided
- Close to the next major landfill being Wondai.
- Increased compliance required by the state government's environment department
- Windblown litter due to open skips bins.
- No immediate access to utilities – no electricity, sewerage or water connections close by

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Green waste bringing brought in "clean".
- Establish one transfer station/waste facility for the Wondai and Murgon area for the public to access. This could be a new site or one of the two (2) existing facilities modified.

Waste Facility - Cloyna West Road CLOYNA

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Rural Trench Landfill	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Clean fill • Scrap Metal • Waste Motor Oil

Strengths/Benefits:

- Locals able to access at any time
- Good road (sealed bitumen) access to site & all weather access around site (gravel)?
- Capacity to deal with waste in a disaster/emergency/flood

Weaknesses/Risks/Threats:

- Less than five (5) years of waste disposal capacity left
- Unsupervised. Theft of scrap metal and other recyclable/reusable items occurring. Potential safety implications.
- Distance to Murgon
- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Increased compliance required by the state government's environment department
- Anecdotal evidence to suggest that facility being utilised by persons outside of the South Burnett.
- Close to neighbouring property residence.
- Vandalism and unscrupulous person(s) setting fire to the landfill
- Windblown litter.
- No immediate access to utilities – no electricity, sewerage or water connections close by

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Eliminate this site or establish a Transfer Station

Waste Facility - Finlay Road NANANGO

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Major Landfill with simple front end transfer station • Landfill receives waste from domestic and commercial waste collection trucks direct	• 7.30am to 4.30pm supervised by Contract. • Commercial and Domestic Waste received	• Domestic and commercial • Limited hazardous waste	• Green waste • Aluminium Cans • Scrap Metal and E-waste • Waste Motor Oil • Batteries • Clean fill • drumMUSTER

Strengths/Benefits:

- Second largest of the four (4) major landfills within the Shire
- Able to receive limited amounts of asbestos waste
- Fifteen (15) years of waste disposal capacity left
- Close to Nanango
- Supervised and open seven (7) days a week from 8am to 5 pm
- Good road (sealed bitumen) access to site & all weather access around site (gravel)?
- Electricity connected to gatehouse and provision for water (rainwater tank) and sewerage (portable toilet)

Weaknesses/Risks/Threats:

- Only fifteen (15) years of waste disposal capacity left. Need to start planning for further waste disposal options
- Not able to provide a lot of recycling options
- Size of site is limited. Not able to stockpile large quantities due to space restrictions
- Increased compliance required by the state government's environment department
- No immediate access to utilities – no electricity, sewerage or water connections close by
- Windblown litter
- Access to the landfill via road network is cut off when flooding.

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)
- Improve the quality of the green waste mulch and perhaps further value add (e.g. compost) and sell final end product.
- Establish Transfer Station

Waste Facility - Kingaroy Cooyar Road MAIDENWELL

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Small Bulk Bin Transfer Station for local use only	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Nil

Strengths/Benefits:

- Close to Maindenwell
- Locals able to access at any time
- Good road (sealed bitumen) access to site & all weather access around site (gravel)?
- Weaknesses/Risks/Threats:

Weaknesses/Risks/Threats:

- Unsupervised. Potential safety implications.
- Noise from transfer station impacts upon neighbouring houses.
- Due to distance, cost & small volumes of recyclables not able to provide any recycling options.
- Size of site is limited – space restrictions
- No immediate access to utilities – no electricity, sewerage or water connections close by
- No capacity to deal with waste in a disaster/emergency/flood

Opportunities:

- Eliminate this site due to its size and also because a kerbside waste collection service is already provided to the Maidenwell township; or
- Relocate the existing facility and/or establish a new/upgraded Transfer Station
- Introducing additional recycling prospects. (These however may not be self funding)

Waste Facility - D'Aguilar Highway BLACKBUTT

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m³ Skip Bin Transfer Station	• On site Supervisor Contractor 8.00am-5.00pm Thursday to Monday.	• Domestic waste only received to the skip bins	• Aluminium cans • Batteries • Clean fill • Scrap metal & e-waste • Glass • Waste Motor Oil • Green waste

Strengths/Benefits:

- Close to Blackbutt
- Supervised and open Thursday to Monday from 8am to 5 pm
- Good infrastructure.
- Electricity connected to main shed and provision for sewerage (portable toilet) & water (rainwater tank)
- Good road (sealed bitumen) access to site & all weather access around site (gravel)
- Capacity to deal with waste in a disaster/emergency/flood

Weaknesses/Risks/Threats:

- Not able to provide a lot of recycling options
- Size of site is limited. Not able to stockpile large quantities due to space restrictions
- Distance to Nanango.

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)

Waste Facility - BUNYA MOUNTAINS

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Very small Bulk Bin Transfer Station for local use only	• Local domestic resident access only	• Domestic waste only permitted to be received to this site	• Nil

Strengths/Benefits:

- Close to the Bunya Mountains community
- Locals able to access at any time
- Good road (sealed bitumen) access to site & all weather access around site

Weaknesses/Risks/Threats:

- Unsupervised. Potential safety implications.
- Due to distance, cost & small volumes of recyclables not able to provide any recycling options
- No capacity to deal with waste in a disaster/emergency/flood
- No kerbside waste collection service provided in this National park and community area
- Electricity close by, but not connected, but no sewerage or water connection to the area.

Opportunities:

- Introducing additional recycling prospects. (These however may not be self funding)

Waste Facility - D'Aguilar Highway WATTLECAMP

Site Specifics	Site Management	Approved site use	Recycling facilities provided
• Transfer Station only • 27m^3 Skip Bin Transfer Station	• On site Supervisor Contractor 8.00am-5.00pm Wednesday, Saturday & Sunday	• Domestic waste only received to the skip bins	• Scrap Metal • Batteries • Waste Motor Oil

Strengths/Benefits:

- Close to the Wattlecamp community
- Good road (sealed bitumen) access to site & all weather access around site (gravel)
- Some capacity to deal with waste in a disaster/emergency/flood?

Weaknesses/Risks/Threats:

- Not able to provide a lot of recycling options
- Size of site is space restricted.
- Distance to Kingaroy/Nanango
- No immediate access to utilities – no electricity, sewerage or water connections close by

Opportunities:

- Eliminate the site as a kerbside waste collection service is provided to the Wattlecamp community or upgrade the existing Transfer Station; or
- Introduce additional recycling prospects. (These however may not be self funding)

3.4.2.3 WASTE FACILITY OPENING HOURS

The opening hours of the existing waste facilities are as outlined in the table below:

Table 13: Summary Table of the Existing Waste Facility Opening Days/Hours

Location	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Total
Kingaroy	8.00am to 5.00pm supervised. Commercial & Domestic Waste received							**63hrs**
Kumbia	6.00am to 6.00pm by automatic gate access with surveillance cameras operating							**84hrs**
Memerambi	Local resident access only via key system							**Unlimited**
Chapingha	Local resident access only							**Unlimited**
Wondai	6.30 am to 5.00pm unsupervised. Commercial (by arrangement) and Domestic Waste recevied							**73.5hrs**
Hivesville	Local resident access only							**Unlimited**
Proston	6.00am to 6.00pm by automatic gae access with surveillance cameras operating							**84hrs**
Brigooda	Local resdient access only							**Unlimited**
Durong	Local resident access only							**Unlimited**
Home Creek	Local resident access only via key system							**Unlimited**
Murgon	6.30am to 5.00pm unsupervised. Commercial (By arrangement) and Domestic Waste received							**73.5hrs**
Cloyna	Local resident access only							**Unlimited**
Nanango	7.30am to 4.30pm supervised. Commercial and Domestic Waste received							**63hrs**
Maidenwell	Local residents access only							**Unlimited**
Blackbutt	8.00am to 5.00pm	Closed	Closed	8.00am to 5.00pm	8.00 to 5.00pm	8.00am to 5.00pm	8.00am to 5.00pm	**45hrs Supervised**
Bunya Mountains	Local Residents only							**Unlimited**
Wattlecamp	Closed	Closed	8.00am to 5.00pm	Closed	Closed	8.00am to 5.00pm	8.00am to 5.00pm	**27hrs Supervised**

3.4.2.4 WASTE FACILITY DISPOSAL AND RECYCLING OPTIONS

The table below summarises the various recycling opportunities that presently exist at the current waste facilities:

Table 14: Summary Table of the various Recycling Options Available at the Waste Facilities

	Opening Hours	Blackbutt	Chahpingah	Brigooda	Cloyna	Durong	Hivesville	Home Creek	Kingaroy	Kumbia	Maidenwell	Memerambi	Murgon	Proston	Nanango	Wattlecamp	Wondai	Bunya Mountains
		Open 8.00am - 5.00pm Thur - Mon Domestic & Commercial waste only	Local residents only Domestic waste only	Local residents only Domestic waste only	Local residents only Domestic waste only	Local residents only Domestic waste only	Local residents only Domestic waste only	Locked facility Local Residential waste only	Open 8.00am - 5.00pm everyday Domestic, Commercial & Industrial	Locked facility - Keypad Access Local Residential waste only	Local residents only Domestic waste only	Locked facility Local Residential waste only	Open 6.30 am -5.00pm everyday Domestic, Commercial & Industrial	Locked facility - Keypad Access Local Residential waste only	Open 7.30am to 4.30pm everyday Domestic, Commercial & Industrial	8.00am -5.00pm Wed, Sat & Sun Local Domestic waste only	Open 6.30am -5.00 pm everyday Domestic, Commercial & Industrial	Local residents only Domestic waste only
Recyclable - Free Disposal	Aluminium Cans	✓							✓			✓	✓		✓			
	Batteries (car/truck)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Cardboard & paper								✓									
	Clean fill	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓		✓	
	Cooking oil								✓				✓		✓		✓	
	E waste (computers, games, TVs etc)	✓		✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	
	Glass	✓										✓		✓				
	Motor oil	✓			✓		✓		✓	✓		✓	✓	✓	✓	✓	✓	
	Scrap metal	✓		✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	
Waste - Fee for Disposal	Asbestos								✓						✓			
	Commercial & Industrial waste	✓							✓				✓		✓		✓	
	Construction & demolition waste								✓				✓		✓		✓	
	Household hazardous waste								✓				✓		✓		✓	
	Paint								✓									
	Plastics – milk & softdrink bottles, soft plastics	Recycling arrangements pending - This waste is presently treated as general waste.																
	Tyres								✓						✓			
No Fee	Commercial Green waste (clean vegetation)								✓				✓		✓		✓	
	Domestic General waste	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Domestic Green Waste (clean vegetation)	✓			✓		✓		✓	✓			✓	✓	✓		✓	

RECYCLABLE WASTE	All recyclable material must be left in the designated area Recyclable material must be free of contaminants e.g. glass bottles to be washed
FEES APPLY	Asbestos Construction & Demolition Waste Commercial & Industrial Waste Household Hazardous Waste Paint Tyres
NO FEES APPLY	Green Waste (clean vegetation only) Domestic General Waste
MULCH KINGAROY & NANANGO	Green waste mulch is available to the public free of charge every Monday (excluding public holidays) between 10am and 12pm at Kingaroy. The Nanango Landfill Contractor will load vehicles for a fee. Special arrangements can be made for truck loads - Please contact Council on 4189 9100 if you require this service. For Health and Safety reasons, it is mandatory for Council to load the mulch into trailers.

3.4.3 Grease Trap and Liquid Waste Services

Grease Trap, Septic Tank and Oily Water Waste is presently disposed of at specific liquid waste disposal sites within the old designated Kingaroy, Nanango and Wondai Shire Council areas.

These particular waste streams are collected by private state licensed contractors in approved tankers. The South Burnett Regional Council has no involvement in the collection of this waste. Council merely provides a disposal service.

The present disposal solutions for liquid are not necessarily considered sustainable in the long term. The method of treatment and disposal that is in place presently was only designed to deal with small volumes and initially its focus was on septic tank waste. Environment and plumbing legislation in subsequent years required grease traps and oil separators to be fitted to certain commercial business premises so that greasy and oily water would not be discharged to the local government sewerage system. These other two liquid wastes, namely grease trap and oil water, subsequently needed to be disposed of and had to be accommodated within the existing or slightly modified liquid waste disposal systems. A multitude of rural residential subdivisions in the "recent" past throughout the South Burnett has also seen the volumes of septic tank waste increase.

Table 15: Estimated liquid waste disposal volumes

Waste Facility Location	Oily Water	Grease Trap	Septic Tank	TOTAL
Total Mega Litres disposed of per year	112	777	929	1,818

3.5 LEGACY LANDFILLS

The South Burnett Regional Council has presently identified twenty two (22) old closed landfills, which had been operated by the previous local governments prior to amalgamation. See Appendix 2 for the locality map of the old closed landfill sites. These old landfills referred to as legacy landfills were closed many years before amalgamation, in fact most of them would have easily predated the Environmental Protection Act 1994.

There was little to no environmental licence conditions or state controls on these sites when they were closed or abandoned by the previous administrations. However, they are considered the responsibility of the South Burnett Regional Council. The Department of Environment and Heritage Protection (DEHP) is requiring that the South Burnett Regional Council ensure that these legacy sites are suitably covered over (i.e., capped) to make sure that they are not adversely impacting upon the surrounding environment.

The South Burnett Regional Council has submitted a draft timetable for the "restoration" of these old legacy waste disposal sites to DEHP See Appendix 3 for an outline of the proposed timeline for these legacy sites.

4 STRATEGY DEVELOPMENT

4.1 STRATEGY GOALS

The South Burnett Regional Council has reviewed its present Waste Management situation as well as the regulatory environment in which its waste services exists and has also proposed a preferred position for waste management into the future. This strategic waste management planning function is outlined in the following sections of this document.

Council has had to weigh up the pros and cons of the various possible strategic models moving forward along with the financial restrictions facing a small regional local government. Council believes that it has decided upon a measured and achievable compromise between waste management where cost is no limit and what is an affordable and practical level of service. The philosophy of continuous improvement has been an aspect of consideration during the waste planning process.

In order to move forward towards the new proposed waste management position a number of strategic goals have been developed based upon the abovementioned analysis, which has been strongly influenced by the level of service to be provided to the community.

4.2 LEVEL OF SERVICE

The South Burnett Regional Council has reviewed what its current level of service to the community is and how it can best continue to service the community's waste management needs and expectations. Defining a level of waste management service requires consideration of:

- **Waste Collection** [e.g, Will Council provide a kerbside collection service? If so, what waste collection service will it provide (waste only or recycling also or green waste as well)? What will be the type of waste collection container (bag, rigid box or 60L waste bin or 120L, 240L or 360L wheelie bin), frequency (how often will the service be provided?)]
- **Resource Recovery and/or Waste Treatment** [e.g., Is the collected waste resource going to undergo a resource recovery or treatment process prior to disposal (go through a Recycling Recovery Facility or a waste to energy plant)]
- **Types of waste facilities and what services will be required at those waste facilities** [e.g., Landfill, Transfer Station or Materials Recovery Facility. What degree, type of services or recycling opportunities will be supported at those sites?]
- **Customer travel time to waste facilities**
- **Waste facility site supervision**
- **Waste facility opening hours**

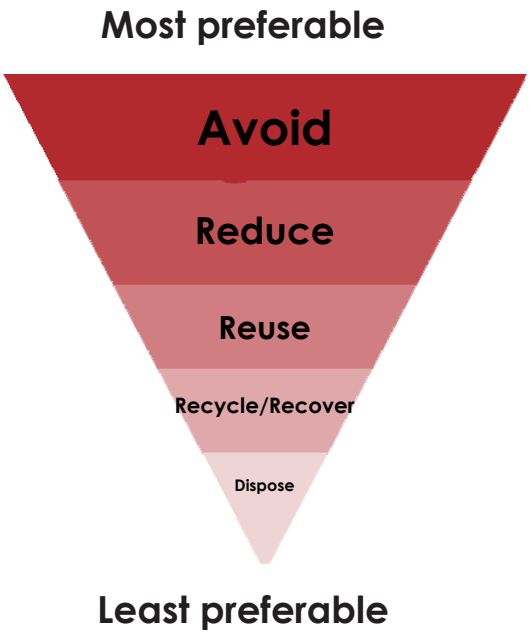
The higher order facets of waste management, namely waste avoidance, waste minimisation and reuse can impact upon a set level of service. Therefore, it is important to understand and decide what higher order waste hierarchy initiatives, if any, are going to be proactively introduced as part of any waste strategy and try to forecast how these will influence the established waste management practices and the types of waste to be managed.

4.3 WASTE REDUCTION & RESOURCE RECOVERY

4.3.1 Waste Hierarchy

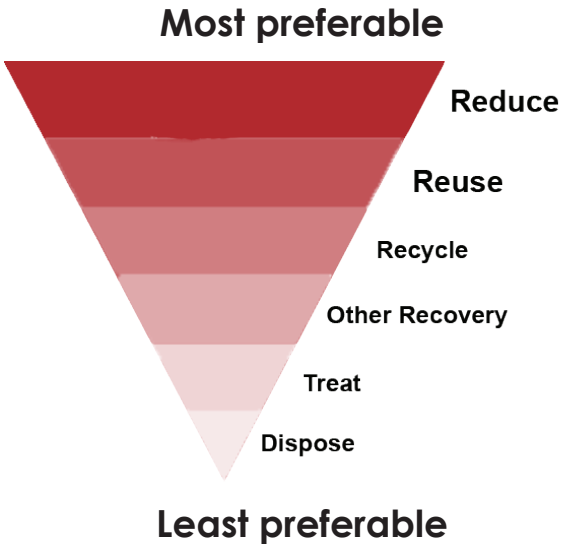
The concept of the "Waste Hierarchy" is internationally accepted. The Waste Hierarchy model outlines the preferred options for dealing with waste (see Figure 2 below).

Figure 2: Waste Hierarchy Model



The Queensland Government has taken this concept and expanded on it introducing the concept of the "Waste and Resource Management Hierarchy" in the state government's Waste Reduction and Recycling Act 2011 (see Figure 3 below).

Figure 3: Queensland's Waste and Resource Management Hierarchy Model



The Waste and Resource Management Hierarchy espouses an additional step, namely treating the waste before disposal, which includes reducing the hazardous nature of waste. They have also separated Recycle and Recovery seeing them as separate steps in the process.

Each option within the hierarchy models is effectively ranked as to how favourable it is from an environmental perspective. The environmental expectation is that when considering waste management of any degree the first consideration must be to avoid the generation of this waste in the first place. If this not possible, the next choice is how can the generation of this waste be reduced or minimised. If this cannot be done, or there is still some residual waste, then the next decision is can the waste be reused. If after applying this concept there is still waste remaining can its value as a resource be recovered. That is, can it be recycled or utilised as an input to another process rather than disposed of as an output or can its inherent value be recognised some other way instead of just disposing of it (e.g. waste to energy). The treatment step as mentioned before may involve a process to make a waste substance less hazardous such as fixation so volatile leachable compounds within the waste are effectively bound up thus reducing the mobility of those previously hazardous substances. The final step in the Waste Hierarchy process is disposal.

The Waste Hierarchy has been a guiding principle throughout this strategic waste planning exercise.

The state government's Waste Reduction and Recycling Act 2011 was mentioned earlier and one of the provisions under this Act is that all local governments must adopt a Waste Reduction and Recycling Plan. The production of this Waste Management Strategy document endeavours to also fulfil the requirements for a Waste Reduction and Recycling Plan. To this end, this publication should be construed to also be the South Burnett Regional Council's Waste Reduction and Recycling Plan.

4.3.2 Resource Recovery

The South Burnett Regional Council recently entered into a new kerbside waste collection contract, which commenced on 1 July 2014. Prior to this new waste collection contract the Council was operating under a mix of contract and day labour carried over from before amalgamation. The South Burnett Regional Council has been keen to have one system across the whole region.

The previous Nanango Shire Council Local Government area was the only local authority to have a kerbside recycling service via a split 240L wheelie bin system, which provided for both the disposal of general waste and the recovery of recyclable items such as aluminium and steel cans, plastic containers, paper and cardboard.

Research has shown that the contamination rate of split bins compared to a two bin system, where there is a separate bin for general waste and a separate bin for recyclables, is higher. Nanango's split bin recycling data is shown below.

Table 16: Nanango Split Bin Recycling Data by financial year (Tonnes)

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Total Recyclables (tonnes)	334	309	258	286	294	363
% Contamination	8%	11%	12%	11%	15%	6%

Leading into the preparation for this present waste collection contract Council was keen to see kerbside recycling introduced across the South Burnett. The major drivers for a kerbside recycling collection was in order for Council to be able to:

- meet the State Government's waste reduction and recycling targets, whether under the old "Reduction and Recycling Strategy 2010–2020" or the new Queensland Waste Avoidance and Resource Productivity Strategy (2014–2024); and
- implement sustainable waste management practices; and
- satisfy a key Community Plan outcome, namely to implement recycling initiatives throughout the region; and
- provide uniformity across the South Burnett Regional Council

If the South Burnett Regional Council was to have any hope in being able to meet the State Government's now voluntary waste reduction and recycling targets then kerbside recycling would need to be implemented.

A waste audit conducted in the South Burnett region in 2012 identified that almost half (48%) of the waste in a domestic wheelie bin placed out for collection contained recyclable items, including plastic bottles, aluminium cans, cardboard and paper. All of these products are able to be recycled.

Council had been informed, during consultation when developing the Community Plan, that recycling was a high priority for the Region. However, if Council was going to incorporate kerbside recycling as part of its new waste collection contract, this was going to be a major change for the South Burnett community. Therefore, Council believed that it was necessary to engage with the community in order to gauge their position on the matter. To this end, the South Burnett Regional Council undertook a survey of all residents who currently were provided with a kerbside waste collection service.

The kerbside collection survey included questions about a two bin recycling service (one for general waste and the other for recycling) and a three bin system incorporating an additional green waste collection.

About 40% of the 13,486 surveys were returned. This is an extremely high return rate considering that normally a good return rate would be around 10%. There was obviously a lot of interest from the community in this particular matter.

Of those who responded about 31% were interested in Council implementing a two (2) bin system (general refuse and recycling) while only 7% were interested in Council introducing a green waste service [three (3) bin system].

Although some residents responded with a 'no' to a kerbside recycling service [two (2) bin system], over two-thirds (68%) indicated that they would like a recycle bin, but were concerned about the cost of the service.

Based on this feedback Council cautiously went to tender requesting prices for a one (1) [general refuse only service] and a two (2) bin system [general refuse and recycling].

Council after great deliberation and consideration of the financial impost upon ratepayers as well as the present and future additional costs associated with a reduction in state and federal funding it was reluctantly decided not to proceed with kerbside recycling, at this time. Council has not decided indefinitely to not have a kerbside recycling service, but rather for now at least in the short term it will not be establishing a kerbside recycling collection.

Council has however committed itself to continue to explore the possibilities and options of expanding and/or introducing recycling opportunities at the various waste facilities across the South Burnett, in particular at least at the four major waste facilities of Kingaroy, Murgon, Nanango and Wondai. To this end, the South Burnett Regional Council continues to be in discussions with the Cherbourg Aboriginal Shire Council (CASC), who recently commissioned their own Material Recovery Facility (MRF).

The South Burnett Regional Council and CASC have entered into a Memorandum of Understanding (MoU), which seeks to outline the manner of responsibilities which the two parties would be accountable for in such a recycling partnership. Applications have been made under some funding opportunities, which if successful, would be able to assist the South Burnett Regional Council and CASC in moving closer to realising additional recycling options initially at South Burnett Regional Council's four major waste facilities.

It is also important to note that Council has already implemented a number of resource recovery initiatives at some of its waste facilities in order to minimise the amount of waste going to landfill. For example, construction and demolition waste is presently stockpiled at the Kingaroy waste facility, where it is eventually converted into recycled aggregate and able to be reused. Green waste is segregated at many landfills and diverted from being buried. The next extension to this activity is to try and improve the contamination rate experienced in the green waste stockpiles so that value adding activities such as composting can be undertaken and the final product sold. Batteries, waste motor oil, waste cooking oil, scrap metal and agricultural drums are other examples of existing resource recovery practices.

4.3.3 Waste Avoidance, Reduction & Reuse

As Council will presently not be implementing a kerbside recycling service in the short term the other aspect that it is now focusing is on is the higher level order principles of the Waste and Resource Management Hierarchy, namely Waste Avoidance, Waste Reduction and Reuse.

To this end, Council's waste management education program will be concentrating on resource conservation, waste minimisation and reuse strategies. Education campaigns will be targeted at the general community as well as to the business sector and the schools.

The South Burnett Regional Council will also be seeking to increase the community's participation in the "Recycle Shop" initiative. The existing model in Kingaroy seems to be working well and beneficial to all partner stakeholders. Therefore, Council will also be investigating the feasibility and community interest to establish additional recycle shop precincts throughout the South Burnett. The feedstock for such recycle shops will come from the local landfill(s) in the area where the new enterprises may be located.

4.4 WASTE FACILITY NETWORK PLANNING

Waste facilities represent a key part of the waste management system. The type, number and location of facilities will impact on the overall waste management cost and levels of service and therefore it is important to get the mix right.

Upon amalgamation the South Burnett Regional Council inherited a seventeen (17) existing waste facilities. An evaluation of the existing suite of waste facilities was necessary to determine if this inherited mix of waste facilities was right for the South Burnett (instead of what might have been acceptable to the other four local government areas prior to amalgamation) or whether a realignment was needed.

When planning for an efficient and cost effective waste facility network there are a number aspects to consider:

4.4.1 Travel Time to Waste and/or Recycling Facility

The generally accepted travel time service levels within the local government waste industry to a waste and/or recycling facility is:

- 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.

This level of service "standard" provides a guide to helping determine the appropriate number and location of waste facilities for a local government jurisdiction. This National guideline is also helpful in moderating community expectations. For example, everyone doesn't want to travel very far to go to a waste facility, but is that a reasonable expectation? If money wasn't

a consideration perhaps this would not be such an issue. However, in local government resource constraints are a reality and so Council simply cannot provide a waste facility 5-10 minutes from every customer. It is just not practical or financially possible. This benchmark measure of travel time provides some rationale and robustness in the waste facility network planning process and well as providing a defence when waste facilities are identified as needing to close.

Each inherited waste facility has been mapped and the corresponding travel time calculated. This travel time is represented by a concentric circle around the waste facility locality. Each concentric circle signifies a 20 kilometre radii, which corresponds to an approximate 30 minute maximum travel time. The intention is to minimise the overlap of the concentric circles, while still endeavouring to provide enough locations that meet the expected service levels.

The South Burnett Regional Council's present waste facility coverage provides some 99.5% of the South Burnett properties with access to a waste facility with a travel time of not more than 30 minutes (See Appendix 6). This is a good outcome, however when looking at the coverage graphically there is some suggestion, because of the large amount of overlap, that perhaps the current mix of waste facilities is over servicing the South Burnett community.

The location of waste facilities must take account of population centres and geographical sub-regions. Designing the optimum transfer station network also requires alignment with landfill disposal sites, which may also need to be accessed by customers. This is therefore an ideal opportunity during the development of the waste management strategy to consider and design a future waste facility network suited specifically for the South Burnett.

The other side of the travel considerations to a waste facility is the travel distance required to transport/transfer the waste to its final processing or disposal destination. This aspect of the waste planning process is important to consider when determining is a certain site or locality the right place for a waste facility as well as deciding exactly what type of waste facility to be established.

4.4.2 Site Supervision

Waste management facilities by nature can expose people to health and safety risks. Inappropriate placement of waste at sites can render recycling materials unrecyclable, create additional safety risks as well as resulting in extra expense to clean up and dispose of the waste correctly.

Supervision of a site provides a greater degree of control and helps to reduce on site risks as well as ensuring that proper disposal practices occur. Ideally at least one person should be present while a waste facility is open.

Site supervision can also be achieved via automation and surveillance cameras, however this form of supervision is more of a passive control mechanism. It does not provide any direct control at the time, but its application provides for a retrospective response. It's a cheaper form of supervision in the medium to long term and enables a way of tracking and recording people's behaviours whilst on site. If they have done something inappropriate then Council can search back through the visual recordings and should be able to identify the perpetrator and follow them up for damages/ costs.

Supervision does come at a cost, but this cost is offset by the beneficial outcomes and regulatory compliance achieved.

The South Burnett Regional Council presently has some four (4) of its waste facilities supervised by on site Contractors. There is no day labour staff presently utilised to supervise any waste facilities.

Council has two (2) of its waste facilities fully automated with camera surveillance.

4.4.3 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 environmental licensing requirements to secure, only receive certain waste for disposal and to adequately supervise waste disposal activities Council must consider the operating costs for all sites.

Council needs to find a balance between hours that its waste facilities are open and what level of supervision is provided against the competing demand for compliance with state licensing conditions, under which Council is legally bound to adhere to. The desired result is to provide opening days and hours applicable to the usage the facility receives.

Another generally accepted local government waste industry benchmark is for sites which predominately have residential clients having less than 5,000 visitors per year to be open for approximately 12 hours per week. This provides normally for the waste facility sites to be open for a half day on Saturday and Sunday and another half day during the week sometime. Waste facility sites in excess of 5,000 visitors per year are assessed on an individual basis.

4.4.4 Type of Facilities and Services

A waste facility can be anything from a:

- landfill (simple rural trench design to a large lined best practice landfill);
- transfer station (ranging from a simple 2 or 3m3 bulk waste bin enclosure to a 10 or 27m3 skip bin walled structure or up to a large facility that can take bulk commercial waste and has the capability to load and compact the waste into a long haul transport vehicle/trailer);
- resource recovery facility (where the separation and processing of collected recyclables is carried out), some other resource recovery facility (such as a waste to energy plant) to a;
- waste treatment facility (e.g. fixation or composting).

The South Burnett Regional Council has an abundance of transfer stations and landfills and the intention is to progressively close the minor landfills and utilise transfer stations and transition to the larger regional landfills and ultimately one super landfill, which will service all of the South Burnett. By eventually only having one landfill there would be associated operating cost savings. This transition to one super landfill however will take up to fifteen (15) years plus to achieve.

Landfills are strategic assets with defined lives, identified by well researched and calculated Closure Plans. The defined life of a particular landfill can be increased through the landfill owner's ability to influence an increase in recycling and/or a reduction in the amount of waste going to landfill.

It is the available airspace capacity within a landfill that has the intrinsic value associated with the asset, not the landfill infrastructure or the buried waste, unless electricity generation from gas production is involved/considered.

Landfill sites operate under a state issued "environmental registration/licence", which includes operational requirements and specifies a cap on the volume of waste that is permitted to be disposed of at a particular landfill per year.

The approval process for a new landfill is extremely protracted and difficult. One of the major considerations when endeavouring to establish a new landfill is trying to find a suitable location due to strict environmental and planning requirements and local community resistance. This places great importance on maximising the life of existing landfill assets. Landfill site selection, acquisition, planning, approval and development can take anywhere from 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 can also represent a financial liability where closure requirements are not

planned and where costs and ongoing monitoring have not been considered and funded. It is necessary to factor in whole of life costs when calculating the cost to establish and operate a new landfill. These costs must be incorporated into the waste disposal charges for the landfill.

A common misconception in the community is that new waste treatment technologies will remove the need for landfill. There are no examples of resource recovery processing plants or alternative waste treatment technologies present or emerging on the known horizon which remove the need for landfill all together. These abovementioned technologies may reduce the volume of waste needing to be landfilled, but there is still a percentage of waste outputs that still need to be landfilled.

4.4.4.1.1 Transfer Stations

A waste transfer station exists to:

- amalgamate smaller loads of waste into larger more efficient loads for transfer off-site;
- provide a safer customer interface alternative than a landfill;
- provide customers with a permanent waste "disposal" site, which has less of an environmental footprint and price tag (capital and operational) compared with a landfill; and
- provide opportunity for the collection of reusable and recyclable items.

Transfer stations are long term waste management assets, generally being located within a clearly defined user catchment area.

Any prospective new transfer station site should allow for sufficient space and be designed with some flexibility in mind in order to permit the site to be developed and change over time as the community grows or waste management practices and solutions change.

Major transfer stations are considered to be those facilities that will accept large volume waste from small vehicles 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. These large transfer stations also generally accept waste and recyclables from domestic and commercial customers. The design of these major transfer stations usually incorporates machinery to push/load waste into large transfer vehicles.

Minor transfer stations are facilities that only accept domestic and smaller commercial vehicles, generally vehicles up to 4.5 tonne gross vehicle mass (GVM).

Small transfer stations are facilities that only accept waste from domestic sources/vehicles.

It is unlikely that weighbridges will be provided at minor and small transfer stations due to the associated capital and operational costs. At sites where no weighbridge exists waste disposal is estimated/calculated as a price per cubic metre (m3). The weight of waste removed from a transfer station is normally captured at the landfill, particularly where a weighbridge is installed.

There are many different transfer station designs around, but generally speaking all of the designs can be summarised into two types of facility designs. One design allows for waste to be deposited by the customer directly into a waste bin or the other sort provides for the waste to be deposited onto a floor area for sorting prior to loading and transfer.

4.4.4.1.2 Resource Recovery

Customers self-transporting waste typically need recycling facilities for green waste, steel, cardboard, reusable items, oil, batteries, construction and demolition waste and household hazardous waste. These recycling facilities may be ideally located at and existing transfer station or landfill waste facility site.

There are also dedicated Material Recovery Facilities (MRF's) where kerbside collected recyclables are sorted and consolidated for sending to markets. These entities are large enough in their own right to be located on a site specific to and expressly suited to this type of activity.

Some Councils also have designated organic and/or green waste processing and composting

sites, which due to their potential for odour issues need to be located appropriately.

Construction and demolition waste sorting facilities where items including concrete, timber and steel are segregated and processed or consolidated for sending to markets is another example of a resource recovery activity that can be site specific.

Federal legislation is attempting to facilitate an increased collection and reprocessing of some types of waste such as used e-waste (computers and TV's). However, South Burnett Regional Council's experience to date with this particular initiative is that private contractors focus exclusively on the larger populated centres. South Burnett Regional Council will continue to adopt a watching brief of these types of programs and will endeavour to participate where able and viable to do so.

Mature markets exist for many recyclable items (e.g., scrap steel, plastic, cardboard and paper, waste oil and batteries), but the only ones that seem to be economically viable in a regionally distance challenged and smaller local government situation, such the South Burnett, are scrap steel, waste oil and batteries.

4.4.4.1.3 Waste Treatment Facility

Waste treatment facilities such as composting and incineration and fixation for hazardous waste substances and alternative waste treatment technologies (e.g., waste to energy) normally require a large feedstock or a large critical mass in order for them to be economically viable. In regional Queensland unfortunately there is not the population base sufficient to support such initiatives presently.

There has been some promising suggestions from the waste to energy industry to modularise the concept on a small scale so that small to medium sized communities could potentially access this sort of waste treatment system. The price tag is still predicted to be extremely high and there are no functioning or working prototypes of waste to energy plants servicing the needs of small local government as yet. So, unfortunately the South Burnett Regional Council's position on this particular matter continues to be a watching brief. The waste management strategy however has been developed with some degree of flexibility so that if and when such technology becomes available to regional local governments that Council has the ability to modify its existing infrastructure to take advantage of waste technology advances.

5 SOUTH BURNETT REGIONAL COUNCIL'S STRATEGY

The waste planning process has established a number of key strategic goals for the waste management area. A number of critical actions have subsequently been identified, which need to be completed in order for these strategic goals to be achieved. The required actions listings also contain items of legislative compliance or key areas needing to be managed. Each of these action items has been prioritised and a proposed timeline allocated. There are six (6) Strategy Goals as outlined below:

5.1 WASTE AVOIDANCE, MINIMISATION AND REUSE

Strategy Goal 1 – Provide Community Waste Education.

Description	Provide waste avoidance, minimisation and resource recovery education services designed to increase awareness of resource conservation, diversion of waste away from landfill and recycling opportunities. Provide information to the community about the various waste facilities and what services are available.

The success of achieving good waste management outcomes is heavily reliant on the users being informed and educated about how they can actively choose to avoid generating waste and what resource recovery options are available to them.

Customers need to know how the various waste facilities operate and what they need to do in order to access those facilities. Education of householders and business operators is therefore a key component of any waste management program.

The proposed education program will target:

Households

Householders require information and advice about how the South Burnett Regional Council's 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 will include details about home composting, worm farming, waste avoidance, reuse and recycling.

Schools

Teachers and students are a key component for waste education. It is anticipated that the waste education program will include a general waste management information brochure, a teacher resource kit, a student information kit and other "In school" waste education materials about sustainable waste management.

Businesses

Business and industry will require specific information about the services available in the region. The industry specific education program should include advice and support on:

How the various waste facilities operate and what they need to do to access those facilities

Cleaner production

Government support programs

Optional waste audits and 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 is run annually. The focus of these campaigns is community participation and environmental awareness rather than waste diversion. The education role is extended to other community organisations to provide information and advice as required.

Actions Required		By When	Measures and Targets
1.1	Deliver a Community Waste Education Program	Commence by 30 June 2015	Community members including residents, schools, businesses and community groups have access to waste education resources that provide advice and assistance to enable informed decisions to be made about improving waste management practices and performance within the South Burnett.

5.2 WASTE COLLECTION SERVICES

Strategy Goal 2 – Provide cost effective, environmentally responsible & efficient waste collection operations.

Description	Waste collection services shall be value for money, operated efficiently and have minimal (to no impact) upon the environment.

The collection of general waste within the South Burnett, via a kerbside 240L wheelie bin, is now delivered under one contract. The contract commenced on 01/07/2014 and expires on 02/07/2022. This expiry date is similar for other Wide Bay Burnett Regional Organisation of Councils Inc (WBBROC) in order to facilitate the possibility of one large region wide collection contract in the 2022/2023 financial year. Discussions on the possibility of such a region wide arrangement are continuing. A decision on whether the WBBROC member Councils wish to proceed with a joint region wide waste collection contract will need to be made by mid 2019 (see section 3.4.1.1 240L WHEELIE BIN WASTE COLLECTION for detailed explanation of the preparation timeframes).

Actions Required		By When	Measures and Targets
2.1	Establish one waste collection contract for the whole South Burnett for the kerbside collection of general waste via a 240L wheelie bin to domestic and commercial clients within the designated waste collection areas. Provide an option for kerbside recycling also, which will be implemented subject to cost and community desire and capacity to pay. Ensure that the waste collection vehicles meet best practice emissions standards.	Before 30 June 2014	Completed
2.2	Manage the new waste collection contract.	Ongoing	Collection services are delivered in accordance with contract terms and conditions.

2.3	Commence arrangements to establish the next waste collection contract not less than three years prior to the expiry of the existing contract.	Medium Term	Continue to contribute to the Waste and recycling Advisory Committee (WRAC) in the Wide Bay Burnett Regional Organisation of Councils Inc. (WBBROC) with a view to helping to facilitate a decision as to whether or not WBBROC and the South Burnett Regional Council should proceed with a region wide waste collection contract by no later than mid 2019. If WBBROC does not proceed with the development of a region wide waste collection contract then the South Burnett Regional Council shall commence its own arrangements to prepare for its next waste collection contract.

5.3 WASTE TRANSFER AND DISPOSAL FACILITIES

Strategy Goal 3 - Provide an appropriate 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.

Some changes will need to be made to the existing waste facility network. See Council's proposed Waste Management capital works program in Appendix 7.

Actions Required		By When	Measures and Targets
3.1	Ensure that the generally accepted industry best practice service level for access to a waste facility is applied within the South Burnett.	Short Term	Less than 5% of properties will have to travel more than thirty (30) minutes in order to access a waste facility.
3.2	Establish a transfer station at the following waste facilities: Hivesville Brigooda Durong Cloyna	Short Term	To be installed by 30/6/2015.
3.3	Investigate possible alternative locations for the existing Maidenwell Transfer Station. If a suitable site is found then establish a new transfer station at this new location and close the existing site.	Short Term	Initial investigation to be undertaken by 30/6/2015.
3.4	Upgrade the Wattlecamp transfer station	Short Term	To be installed by 30/6/2015.

3.5	Establish the Nanango Waste facility transfer station	Medium Term	To be installed by 30/6/2020.
3.6	Extend the current Kingaroy transfer station (subject to demand).	Long Term	To be installed by 30/6/2021.

Strategy Goal 4 – Provide responsible management of waste facilities

Description	Provide waste facilities that are well designed and operated in an efficient and environmentally responsible manner which also meets customer expectations in relation to service quality, cost, recycling and waste reduction opportunities.

In order for the efficient and environmentally responsible management of Council's waste facilities some landfill sites will close.

The capture of waste data at all sites needs to be improved for reporting purposes and to ensure that any future decisions in relation to the waste facilities are well informed.

Waste facilities by nature can expose people to health and safety risks. Also, inappropriate placement of wastes can increase operational costs. Appropriate supervision of site activities is preferred and shown to reduce risks and to ensure proper disposal practices occur. Council will regularly review all waste facility operations for appropriate levels of supervision and security and where feasible sites will be supervised when open.

Old Closed legacy landfills will need to be appropriately rehabilitated.

Actions Required		By When	Measures and Targets
4.1	Effectively close and cap the following rural trench landfills when they have reached their maximum capacity: Hivesville Brigooda	Short Term	Carry out closure, capping and rehabilitation works.
4.2	Effectively close and cap the following rural trench landfills once a transfer station is operational: Durong Cloyna	Short Term	Carry out closure, capping and rehabilitation works.
4.3	Regularly review the opening days and hours of all waste management facilities.	Short Term	Opening times shall be determined subject to site user access volumes, type of waste(s) received, local community expectations and financial operating constraints.
4.4	Review all waste facilities for appropriate levels of supervision and security.	Short Term	Where feasible waste facilities are to be supervised when open.
4.5	Continue to rehabilitate old closed legacy landfills as per the proposed timetable for restoration of old legacy landfills (see Appendix 3)	Long Term	Rehabilitating the old closed legacy landfills in accordance with the proposed time schedule.

4.6	Implement processes to identify and capture waste data for all waste disposed of at Council waste disposal sites as per state legislative requirement.	Short Term	The necessary waste data required from all applicable Council waste facilities is captured, quantified and reported to the state government as stipulated.
4.7	Install wind barriers to the following transfer stations: Kumbia Home creek	Long Term	Install wind barriers by 2020/2021.
4.8	Provide alternative disposal solutions for grease trap, septic and oily water liquid wastes.	Short Term	Establish provision for the new Sewerage Treatment Plant to deal with grease trap and septic tank waste. Establish infrastructure to be able to store oily water, which will then be transported for final processing/disposal at an approved treatment facility.

Strategy Goal 5 - Provide landfill air space to meet the regions long term waste disposal needs

Description	Investigate what feasible options exist for future waste disposal for the waste needs of the South Burnett beyond the next 15 years. As landfilling will most likely be a part of the total waste disposal solution then identify (potential) landfills outside of the South Burnett or potential landfill sites within the South Burnett. Cause adequate landfill capacity to be developed and maintained in order to continue to provide for the waste demands of the South Burnett.

Future availability of landfill airspace is crucial for continued region sustainability and growth. It is important to have a minimum volume of approved landfill airspace available at all times. As a guide the South Burnett Regional Council should be endeavouring to maintain fifteen years of approved waste disposal capacity, which includes long term contracts for access to landfill air space or adequate and suitable land holdings for landfilling, appropriate state government approvals/licences in place and satisfactory levels of funding for the development of the required waste disposal cells.

Actions Required		By When	Measures and Targets
5.1	Continue discussions with the Wide Bay Burnett Regional Organisation of Councils Inc (WBBROC) in relation to the possibility of a combined regional waste disposal facility for member Councils in the Wide Bay Burnett area.	Short Term	A decision is reached as to whether it is in the South Burnett Regional Council's best interests to pursue a combined arrangement within the next two years.

5.2	Investigate the long term waste disposal options for the region including: Options to extend the four major landfills, namely Kingaroy, Murgon , Nanango and Wondai Establishing a major transfer station within the South Burnett in order to bulk up waste for transport and disposal outside of the South Burnett region. Establishing a new major regional landfill within the South Burnett Alternative Waste Treatment Technologies (e.g. Waste to energy) Identify possible existing or proposed landfill sites outside of the South Burnett (possibly within adjoining Council areas) who would be interested in receiving waste from the South Burnett and entering into a long term waste disposal arrangement/ contract.	Short to Medium term	A minimum of fifteen (15) years of approved access to landfill air space to be maintained at all times. Determine which is the most cost effective and provides the most benefit to either continue to provide landfilling within the South Burnett or to transport waste to another shire for disposal.

5.4 RESOURCE RECOVERY

Strategy Goal 6 - Provide opportunities to reduce waste to landfill

Description	Council will continue to provide alternatives to landfilling. Council will also investigate ways of expanding existing resource recovery activities, while also seeking to introduce new landfill diversion initiatives.

Waste Transfer Stations and Landfills - General Recycling

Investigate the feasibility of being able to expand the recycling services presently provided at all of Council's Waste facilities, most particularly at the four major waste facilities of Kingaroy, Murgon, Nanango and Wondai.

Kerbside Recycling

Council shall periodically review its decision to not implement a kerbside 240L fortnightly recycling service. Should circumstances substantially change such that it becomes appropriate/necessary then the decision relating to kerbside recycling will be reconsidered.

Green Waste

Green waste is garden waste such as grass clippings or cuttings and pruning's from trees, shrubs and other vegetation.

Council presently segregates green waste from landfill. Green waste at major Council waste facilities is mulched for reuse, while swmall green waste stockpiles at some of Council's waste facilities are still permitted to be burned.

Mulch, which is processed green waste, is reliant on local or regional markets for reuse. One of the major restrictions in being able to provide a commercially competitive mulch product is because of the level of contamination presently experienced due to users of waste facilities not adequately separating their green waste and keeping other waste items out of the green waste stockpile. If the green waste feedstock could be kept clean then Council could realistically charge for the mulch product or it could value add (i.e., compost the mulched product) to realise a greater revenue for the sale of this higher end product.

Recycle Shop

The South Burnett Regional Council partners with a local community group to provide a recycle Shop in Kingaroy. Items which still have some value are able to be diverted from landfill and resold back to the community. It is Council's intention to expand the present Recycle Shop model to other areas within the South Burnett.

Community Education

Council's waste education program targets the diversion of organic waste through home composting or worm farming. Residents and businesses will also be encouraged to try and avoid generating the waste in the first place through requesting them to think about how they purchase items and whether packaging can be minimised, eliminated or reused.

The Community Education program also seeks to promote the resource recovery opportunities that exist at the Council's waste facilities.

Construction and Demolition Waste (C&D)

This waste type generally includes concrete, bricks, tiles, timber, soils, sand and metal. Provision is presently made at certain waste facilities for segregated C&D waste to be stockpiled and when there is a sufficient amount a contractor comes and pulverises the C&D waste into recycled aggregate for reuse, internally and externally.

Actions Required		By When	Measures and Targets
6.1	Investigate the feasibility of being able to expand the recycling services presently provided at all of Council's Waste facilities, most particularly at the four major waste facilities of Kingaroy, Murgon, Nanango and Wondai.	Short term	Residents and businesses have access to waste facilities that accept clean separated reusable and recyclable items.
6.2	Periodically review if kerbside recycling should be introduced.	Medium Term	If circumstances substantially change Council will reconsider its kerbside recycling decision.
6.3	Continue to divert green waste from landfill and where necessary and/or practicable to recycle it. Investigate and where appropriate implement measures to improve the cleanness of green waste coming into the Council's Waste facilities for recycling. If green waste levels of contamination can be reduced to an acceptable level, investigate the feasibility of value adding (i.e., composting) to the mulched green waste product in order to make a commercially saleable compost product.	Short Term	Green waste stockpiles at the various Council waste facilities are "clean". Investigate the feasibility of composting the clean green waste within the South Burnett
6.4	Continue with the current Recycle Shop in Kingaroy. Ascertain the interest in and feasibility of establishing other Recycle Shops within the South Burnett.	Short term	If adequate interest and support exists then proceed to establish additional Recycle Shops at appropriate locations in the South Burnett.
6.5	Organic waste diverted from the 240L general waste disposal wheelie bin to home composting or domestic worm farms.	Medium to long term	A reduction in the volume of organic waste being deposited in the 240L general waste disposal wheelie bin on the 2012 waste audit data.
6.6	Continue to provide for the recycling/reuse of construction and demolition waste.	Ongoing	Construction and demolition waste is diverted from landfill, where practicable.
	Continue to adopt a watching brief on alternative technologies to see if any of these developments can be incorporated into the South Burnett Regional Council waste management program.	Ongoing	Regularly review the latest developments in the alternative waste management industry to see if any of the processes can be applied to waste management in the South Burnett.

5.5 SUMMARY OF STRATEGY GOALS AND ACTION PLAN

Strategy Goal		Actions Required		By When
1	Provide community waste education.	1.1	Deliver a community Waste Education Program	Commence by 30 June 2015
2	Provide cost effective, safe, environmentally responsible & efficient waste collection operations.	2.1	Establish one waste collection contract for the whole South Burnett for the kerbside collection of general waste via a 240L wheelie bin to domestic and commercial clients within the designated waste collection areas. Provide an option for kerbside recycling also, which will be implemented subject to cost and community desire and capacity to pay. Ensure that the waste collection vehicles meet best practice emissions standards.	Completed
		2.2	Manage the new waste collection contract.	Ongoing
		2.3	Commence arrangements to establish the next waste collection contract not less than three years prior to the expiry of the existing contract.	Medium Term
3	Provide an appropriate network of waste transfer and disposal facilities.	3.1	Ensure that the generally accepted industry best practice service level for access to a waste facility is applied within the South Burnett.	Short Term
		3.2	Establish a transfer station at the following waste facilities: Hivesville Brigooda Durong Cloyna	Short Term
		3.3	Investigate possible alternative locations for the existing Maidenwell Transfer Station. If a suitable site is found then establish a new transfer station at this new location and close the existing site.	Short Term
		3.4	Upgrade the Wattlecamp transfer station	Short Term
		3.5	Establish the Nanango Waste facility transfer station	Medium Term
		3.6	Extend the current Kingaroy transfer station (subject to demand)	Long Term

5.5 SUMMARY OF STRATEGY GOALS AND ACTION PLAN (CONT...)

Strategy Goal		Actions Required		By When
4	Provide responsible management of waste facilities	4.1	Effectively close and cap the following rural trench landfills when they have reached their maximum capacity: Hivesville Brigooda	Short Term
		4.2	Effectively close and cap the following rural trench landfills once a transfer station is operational: Durong Cloyna	Short Term
		4.3	Regularly review the opening days and hours of all waste management facilities.	Short Term
		4.4	Review all waste facilities for appropriate levels of supervision and security.	Short Term
		4.5	Continue to rehabilitate old closed legacy landfills as per the proposed timetable for restoration of old legacy landfills (see Appendix 3)	Short Term
		4.6	Implement processes to identify and capture waste data for all waste disposed of at Council waste disposal sites as per state legislative requirement.	Short Term
		4.7	Install wind barriers to the following transfer stations: Kumbia Home creek	
			Provide alternative disposal solutions for grease trap, septic and oily water liquid wastes.	Short Term
	Provide landfills to meet the regions long term waste disposal needs.		Continue discussions with the Wide Bay Burnett Regional Organisation of Councils Inc (WBBROC) in relation to the possibility of a combined regional waste disposal facility for member Councils in the Wide Bay Burnett area.	Short Term
			Investigate the long term waste disposal options for the region including: Options to extend the four major landfills, namely Kingaroy, Murgon , Nanango and Wondai	

5.5 SUMMARY OF STRATEGY GOALS AND ACTION PLAN (CONT...)

Strategy Goal		Actions Required		By When
			Establishing a major transfer station within the South Burnett in order to bulk up waste for transport and disposal outside of the South Burnett region. Establishing a new major regional landfill within the South Burnett Alternative Waste Treatment Technologies (e.g. Waste to energy) Identify possible existing or proposed landfill sites outside of the South Burnett (possibly within adjoining Council areas) who would be interested in receiving waste from the South Burnett and entering into a long term waste disposal arrangement/contract.	Short to Medium term
6	Provide opportunities to reduce waste to landfill.	6.1	Investigate the feasibility of being able to expand the recycling services presently provided at all of Council's Waste facilities, most particularly at the four major waste facilities of Kingaroy, Murgon, Nanango and Wondai.	Short term
		6.2	Periodically review if kerbside recycling should be introduced.	Medium Term
		6.3	Continue to divert green waste from landfill and where necessary and/or practicable to recycle it. Investigate and where appropriate implement measures to improve the cleanness of green waste coming into the Council's Waste facilities for recycling. If green waste levels of contamination can be reduced to an acceptable level, investigate the feasibility of value adding (i.e., composting) to the mulched green waste product in order to make a commercially saleable compost product.	Short Term
		6.4	Continue with the current Recycle Shop in Kingaroy. Ascertain the interest in and feasibility of establishing other Recycle Shops within the South Burnett.	Short Term
		6.5	Organic waste diverted from the 240L general waste disposal wheelie bin to home composting or domestic worm farms.	Medium to long term
		6.6	Continue to provide for the recycling/reuse of construction and demolition waste.	Ongoing
		6.7	Continue to adopt a watching brief on alternative technologies to see if any of these developments can be incorporated into the South Burnett Regional Council waste management program.	Ongoing

6 STRATEGY IMPLEMENTATION

The South Burnett Regional Council's Waste Management Plan has provided six strategic goals along with a number of action items in order to achieve the Council's vision for waste management into the future.

The timeframes for implementation of the action items is provided in section 5.5 of this strategic document.

7 STRATEGY CONSULTATION

This Waste Management Strategy had been open to public comment for a minimum period of 28 days. All feedback and comments that were received from this consultation period were considered in order to develop this final version of the Waste Management Strategy.


SOUTH BURNETT
REGIONAL COUNCIL
We love our country lifestyle
J.J Richards
& Sons Pty Ltd
Waste Collection

APPENDICES

APPENDICES


Department of Environment and Heritage Protection
I take a drink bottle with me so I can fill it up with tap water
I put my food scraps in our backyard compost bin instead of the garbage
We share resources with other local businesses to reduce costs and waste
We are helping to develop our industry's action plan to recover more waste
We are using recycled goods in the manufacture of our products
We are thinking of new ideas and developments to make sure we treat waste as a valuable resource
Waste–Everyone's responsibility
Queensland Waste Avoidance and Resource Productivity Strategy (2014–2024)
Great state. Great opportunity.
And a plan for the future.
Queensland Government

Appendix 1: Queensland Waste Avoidance and Resource Productivity Strategy 2014 – 2024 – Strategy Framework (cont…)

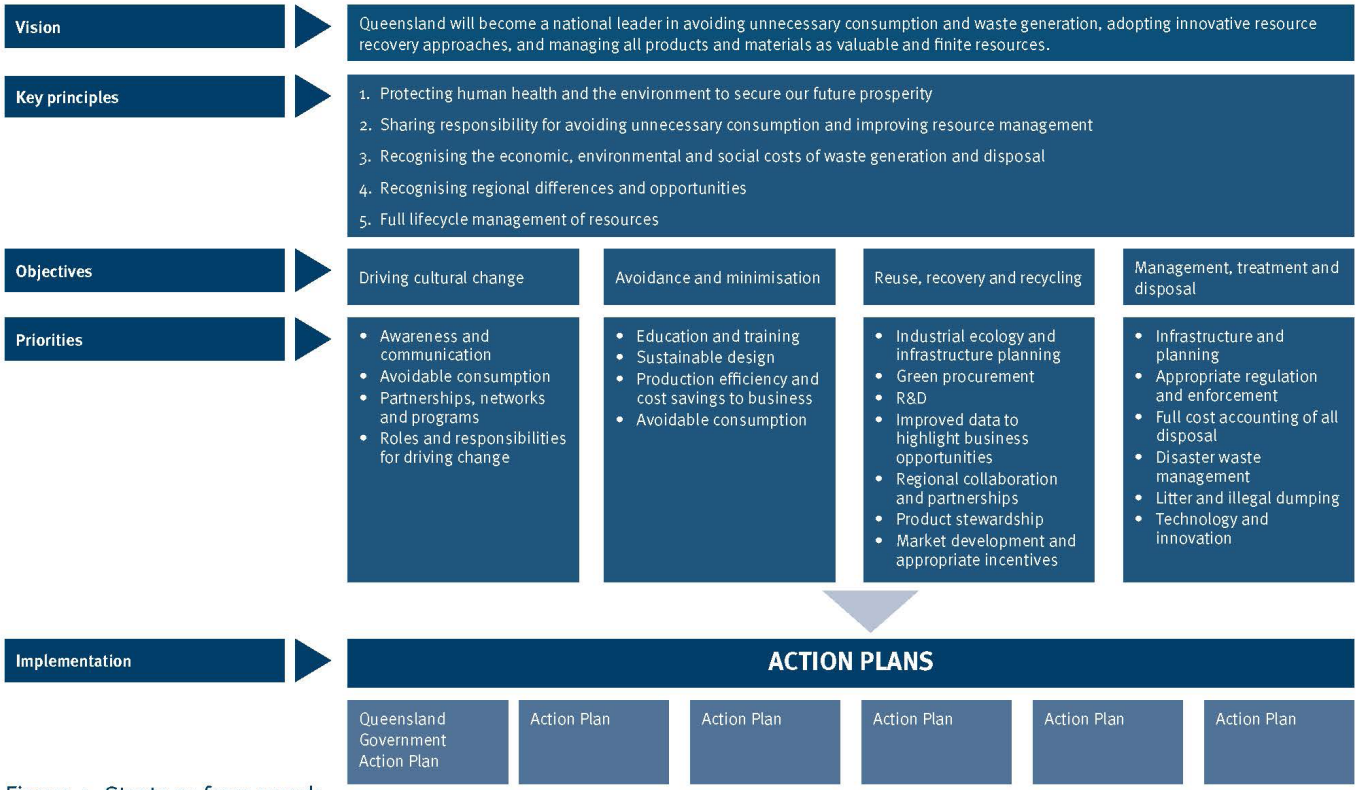
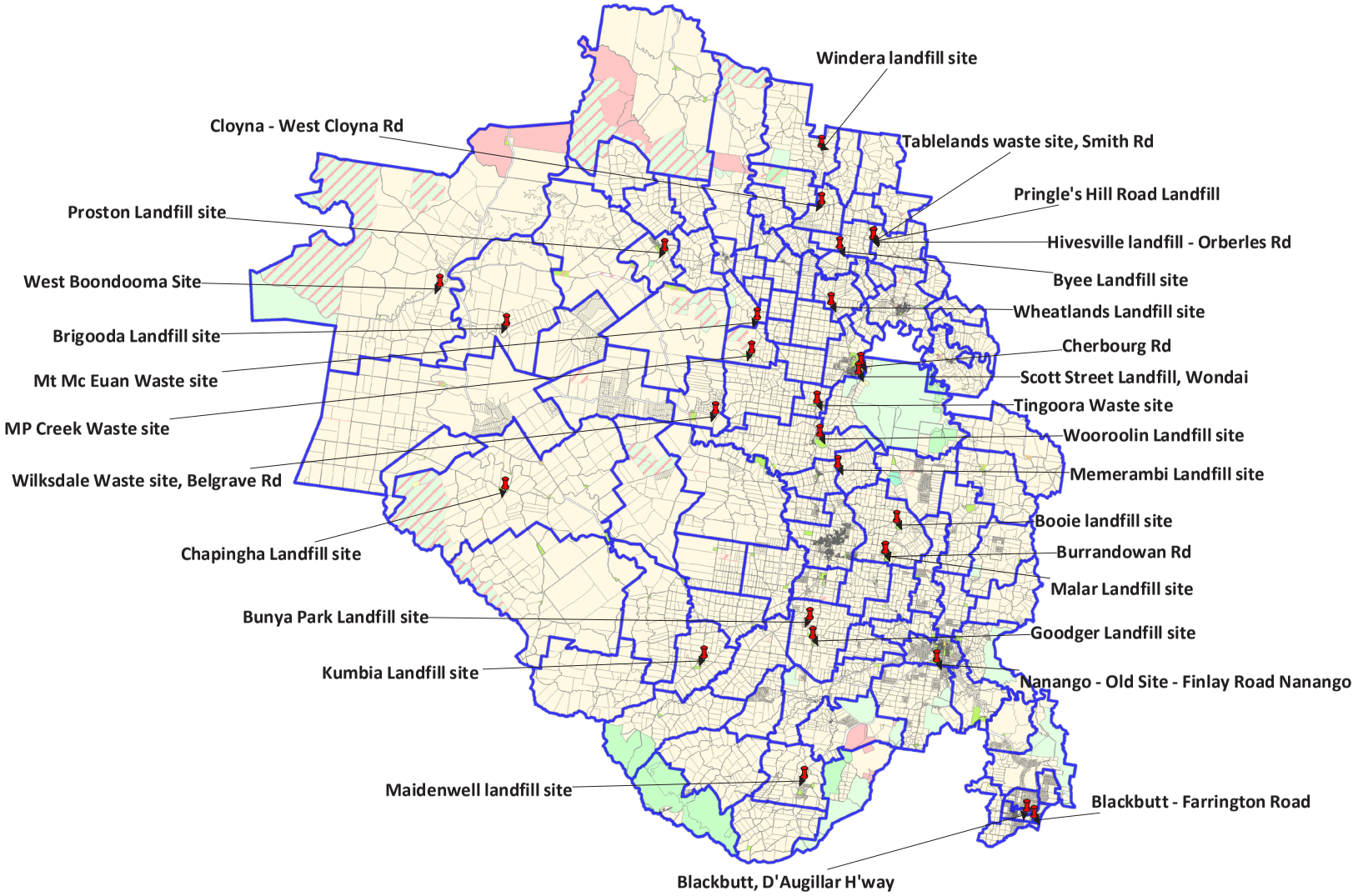


Figure 1: Strategy framework

Appendix 2: Old Landfill Sites Map

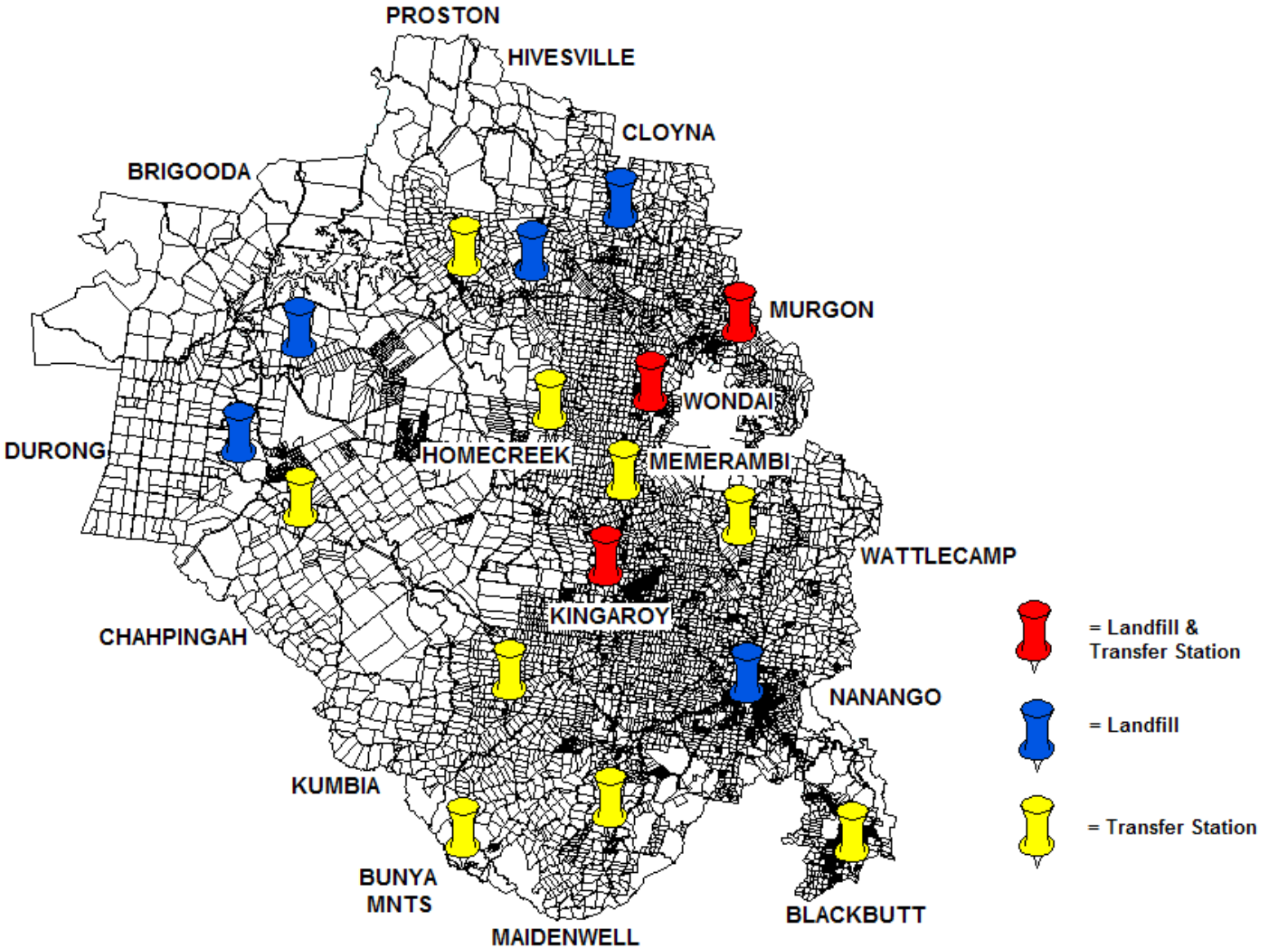


Appendix 3: Proposed timetable for restoration of old legacy landfills

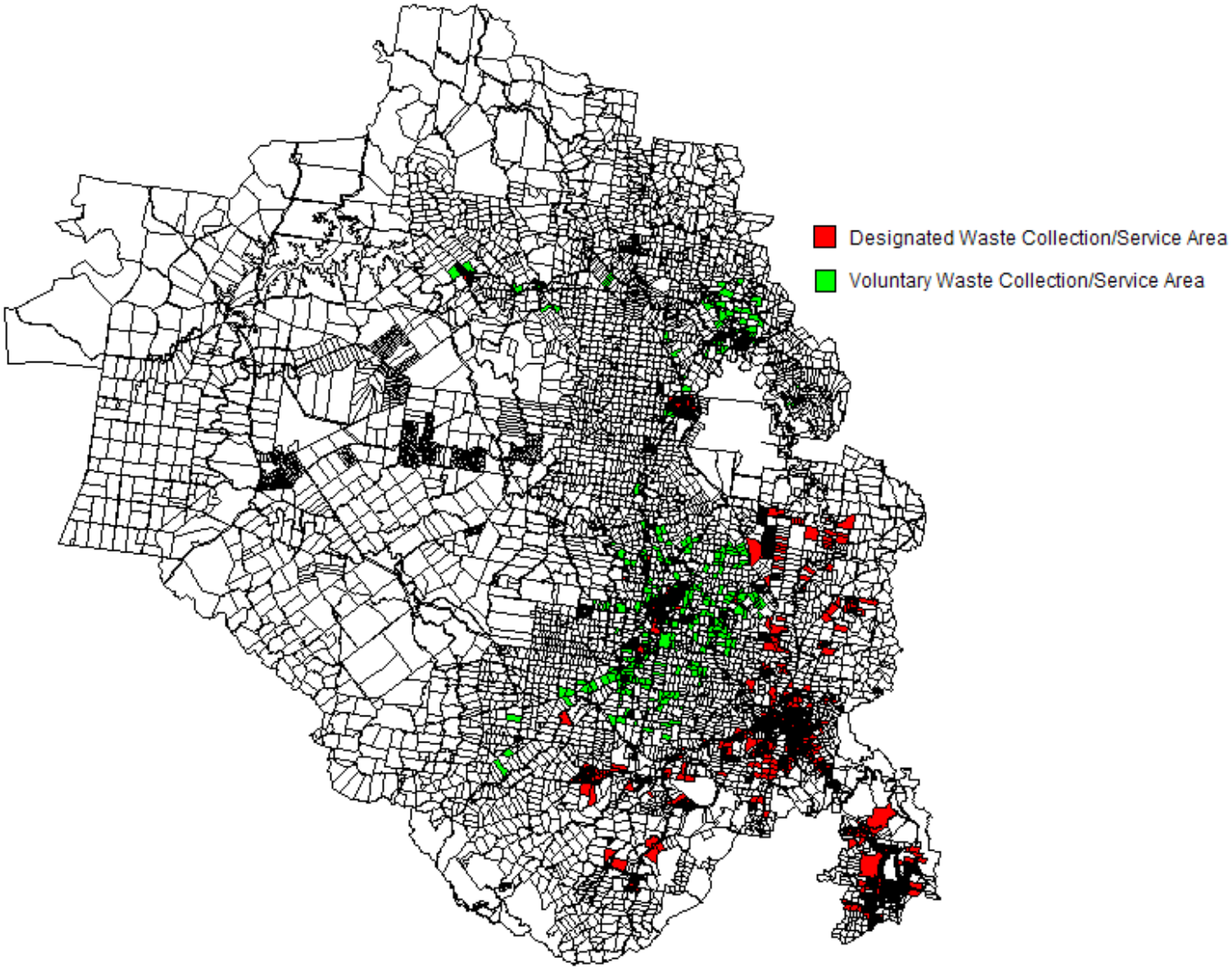
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Tingoora Waste Site	Tingoora										
Goodger Landfill		Goodger									
Wooroolin Wetlands		Wooroolin									
Burrandowan Rd						Burrandowan					
Kumbia Landfill										Kumbia	
Scott St Wondai											Scott
Windera Tip											
Memerambi Tip Site											
Blackbutt, D'Augillar H'way											
Chahpingah Refuse Tip											
Maidenwell Refuse Tip											
MP Creek											
Bunya Mountains Tip											
Blackbutt, Farrington											
Proston Landfill Site											
Mt McEuen Refuse Tip											
Wheatlands Disposal Site											
Wilksdale Refuse Tip											
Malar Refuse Tip											
Old Wondai, Cherbourg Rd											
Booie Refuse Tip											
West Boondooma											

2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
	Windera									
	Memerambi									
		B'butt, D'Aug								
			Chahpingah							
			Maidenwell							
			MP Creek							
			Bunya Mtns							
				B'butt, Far						
				Proston						
				Mt McEuen						
					W'lands					
						Wilksdale				
								Malar		
									Wondai	
										Booie
							Boondooma			

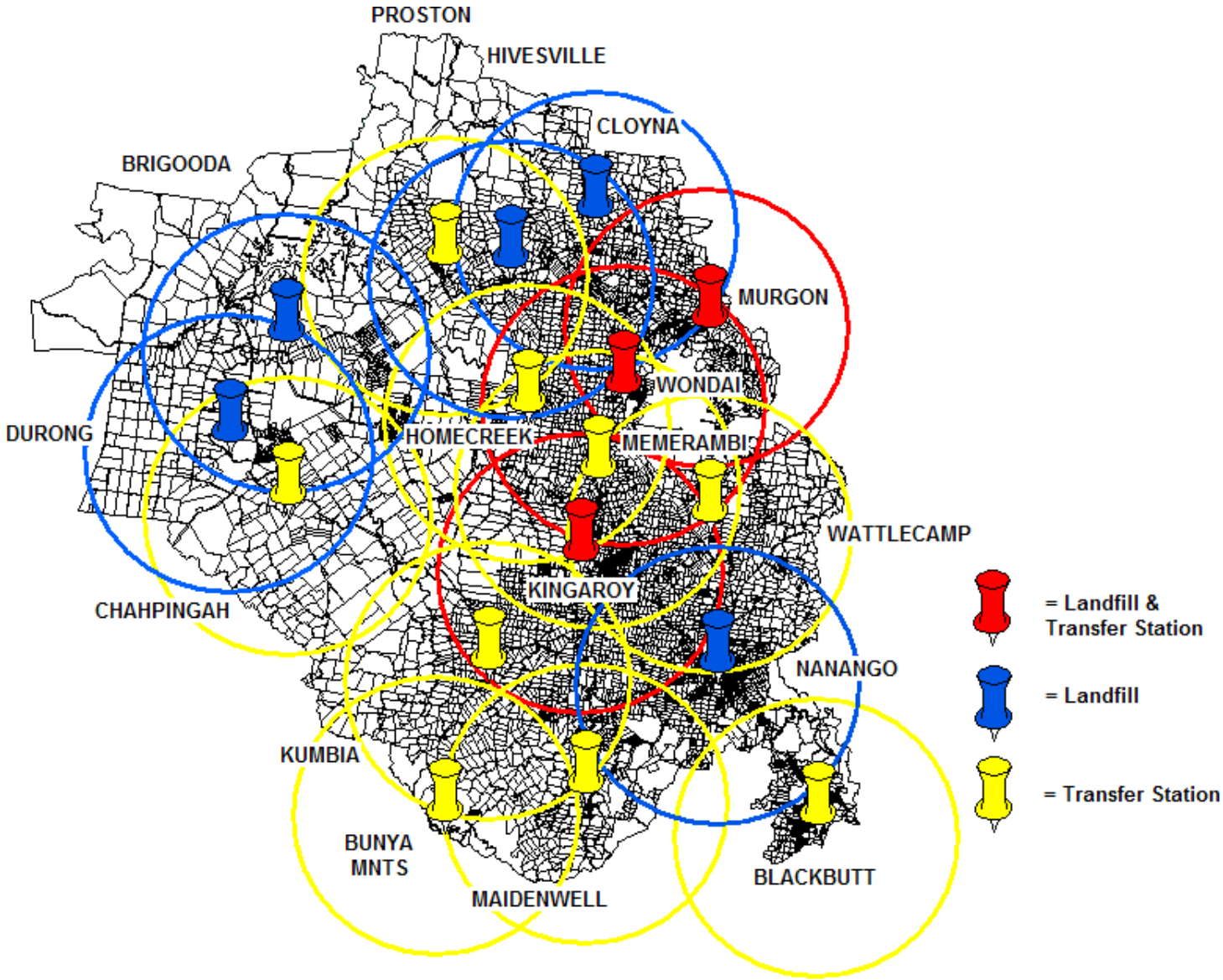
Appendix 4: Current waste facility locations



Appendix 5: Designated Waste Collection/Service Area



Appendix 6: Travel Time Map for Existing Waste facility Locations



Appendix 7: Proposed Waste Management Capital Works Program for 2015-2022

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Hivesville	Closing old landfill & capping. Establishing new Transfer Station						
Wattlecamp	Upgrading existing Transfer Station						
Cloyna	Closing old landfill & capping. Establishing new Transfer Station						
Brigooda	Closing old landfill & capping. Establishing new Transfer Station						
Durong	Closing old landfill & capping. Establishing new Transfer Station						
Kingaroy							Current Transfer Station extension
Maidenwell	Establishing new Transfer Station or upgrading existing						
Blackbutt		Replacement of existing Skip Bins					
Nanango					Establish/upgrade Transfer Station Facility		
Home Creek	Replacement of existing Skip Bins						
Memerambi	Replacement of existing Skip Bins						
Kumbia			Replacement of existing Skip Bins				

Waste Management into the Future

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