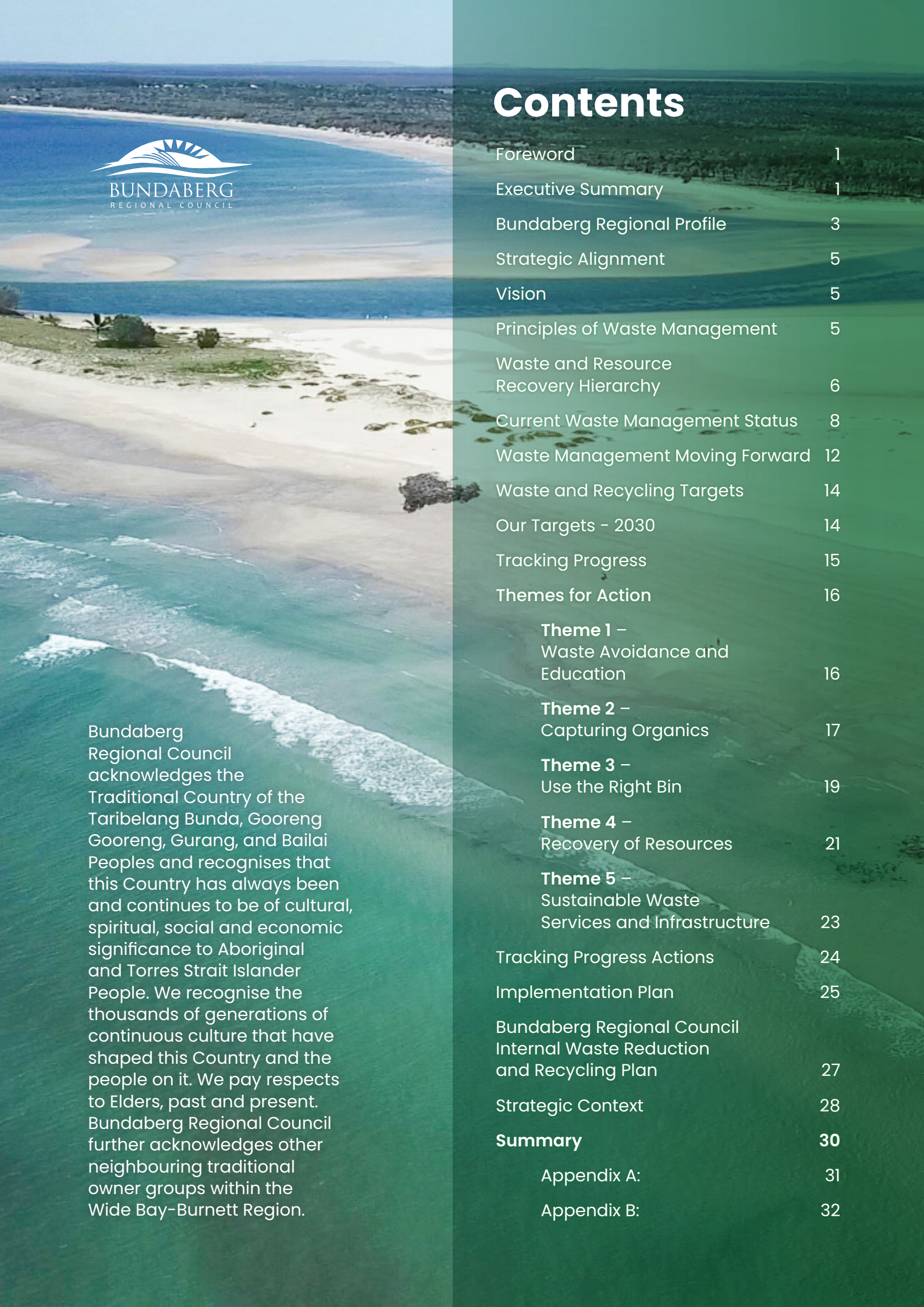
Bundaberg Region

Waste Reduction and Recycling Plan

2023 - 2030

BUNDABERG
REGIONAL COUNCIL



Contents

Bundaberg Regional Council acknowledges the Traditional Country of the Taribelang Bunda, Gooreng Gooreng, Gurang, and Bailai Peoples and recognises that this Country has always been and continues to be of cultural, spiritual, social and economic significance to Aboriginal and Torres Strait Islander People. We recognise the thousands of generations of continuous culture that have shaped this Country and the people on it. We pay respects to Elders, past and present. Bundaberg Regional Council further acknowledges other neighbouring traditional owner groups within the Wide Bay-Burnett Region.

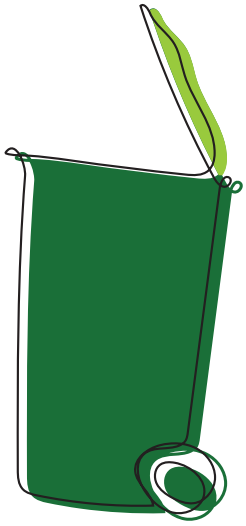
In October 2023,

a FOGO bin

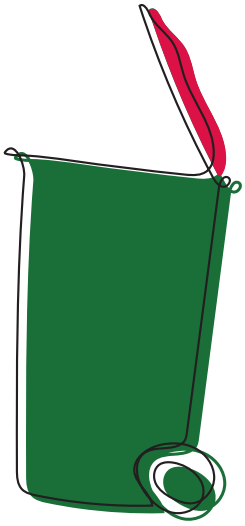
is being introduced

to **some households**
as **part of a trial**.

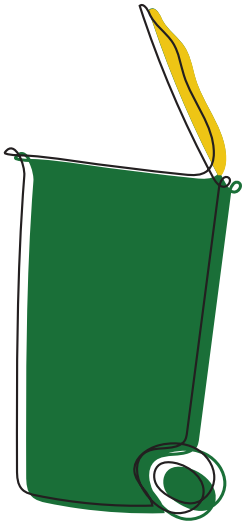
Food
Organics
Garden
Organics



Residents participating in the trial will receive a **lime green lidded FOGO bin** for the disposal of food organics and garden organics.



Council is progressively introducing a **red lidded bin** for residual waste which aligns with the Australian standard. Many residents will know this bin as their standard waste bin.



The **yellow lidded recycling bin** remains the best place to dispose of recyclable goods as we work towards minimising waste to landfill.

Council is committed to reducing landfill waste.

Foreword

Waste is one of the biggest challenges we face as a region and this plan is all about reducing our waste footprint through some simple but important practices and interventions.

Waste avoidance is the first priority however, repair and re-use will become more important features to reduce the loss of finite natural resources.

The key focus is to encourage residents to use the right bin and ensure waste is going into the correct bin to reduce the amount of waste going to landfill.

We also know that over half of what currently goes in the red lidded residual waste bin could be kept out of landfill, either through recycling in the yellow lidded bin or by using the proposed FOGO (Food Organics and Garden Organics) green lidded FOGO bin scheduled to commence in 2026.

An area that requires significant expansion in activity over the life of the Waste Reduction and Recycling Plan is the enhancement of resource recovery activities at a household, business level as well as at Waste and Recycling facilities. The increase of and utilisation of Product Stewardship Schemes and Extended Producer Responsibilities will also drive greater resource recovery and circular economy outcomes.

This new Waste Reduction and Recycling Plan fits in with aspirational goals set by the Queensland Government for waste management and resource recovery.

This plan will encourage everyone in our region to reduce the amount of waste to landfill and increase the resources recovered to ensure the maximum economic, environmental and social benefits can be achieved.

Executive Summary

Bundaberg Regional Council's Waste Reduction and Recycling Plan outlines a clear path forward on how the Bundaberg Region community will move towards a zero-waste society. It incorporates actions for short and medium-term implementation to aim to achieve the 2030 aspirational waste reduction and recycling targets set by the Queensland Government of:

- reducing the amount of waste generated by residents by 15%
- increasing the amount of materials recycled to 60%
- increasing the amount of municipal solid waste diverted from landfill to 70%

The Wide Bay-Burnett Regional Waste Management Plan clearly identifies that our region's overall resource recovery target for 2030 is 60% which is considerably below the state target of 80% by 2030.

Similarly, the State target of increasing the amount of Municipal Solid Waste diverted from landfill to 70% by 2030 will not be achieved in the life of this Plan. The Municipal Solid Waste diversion target within this plan is 60% by 2030.

Currently, each Bundaberg Region household generates 725 kilograms of waste that is landfilled annually via their red lidded residual waste bin. The region's overall recycling rate from the yellow lidded household bins is only 15% of the materials collected.

The Queensland Waste Levy that is paid on household waste landfilled, to the Queensland State government, is forecast to cost the Bundaberg ratepayers an additional $27,000,000 over the next nine years to 2031/2032 and is a major driver of the proposed actions in the Waste Reduction and Recycling Plan with the aim of limiting the financial burden for residents and ratepayers.

The plan and the five themes identified below outline how Council will support the community and work collaboratively to create a circular economy for resources by:

- reducing recyclables lost through the red lidded residual waste bin
- the provision of a food organics and garden organics (FOGO) green lidded bin to a large proportion of the domestic households
- recovering more resources at their source or at waste and recycling facilities.

Waste Avoidance and Education

encourages waste avoidance reduction and re-use while promoting behavioural change through communication and education.

Capturing Organics Plans for the Future

with introducing a trial for Food Organics Garden Organics (FOGO) collection while creating opportunities for re-useable secondary high value products.

Use the Right Bin

uses educational and legislative levers to ensure residents and businesses use the right bin ensuring suitable materials are placed in each bin.

Recovery of Resources

involves the collegial fostering of relationships with other Councils, industry, and the State and Federal governments to establish and embed circular economy principles.

Sustainable Waste Services and Infrastructure

ensures waste, recycling and recovery services are provided to the community as cost effective, safe and easy to use as possible while reducing waste to landfill.

Bundaberg Regional Profile

The Bundaberg Regional Council area is in the Wide Bay Burnett Region of southern Queensland, about 350 kilometres north of the Brisbane CBD. The Bundaberg Regional Council Local Government Area is bounded by the Gladstone Regional Council area in the north, the Coral Sea in the east, the Fraser Coast Regional Council area in the south-east, and the North Burnett Regional Council area in the south-west and west.

Bundaberg is thought to be named from:

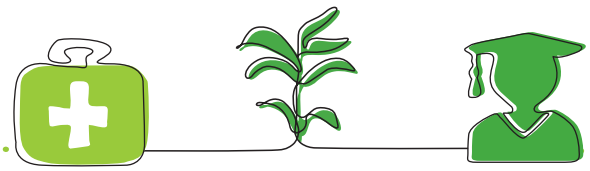
'bunda' ↑ the Aboriginal word, meaning 'important man'

'berg' ↑ the German suffix meaning 'mountain'

Bundaberg is emerging as **one of Australia's best regional communities to invest and live**.

Serving the largest resident population outside of South-East Queensland, **Bundaberg's economy is growing faster than the state and national averages.**

With over $4.5 billion in capital projects under planning or construction, Bundaberg Region's spirit of innovation will ensure the region becomes Australia's best regional community.



Building from a strong and diversified economic base in **health, education** and **agriculture**, the region is now looking for new investment in ag-tech, advanced food, bioproducts and defence, along with other sectors.

Bundaberg also has untapped potential locked away in its natural resources, its agricultural lands, its booming **tourism industry**, along with **port** and **airport** infrastructure.

Bundaberg is considered the

food bowl capital of Australia.

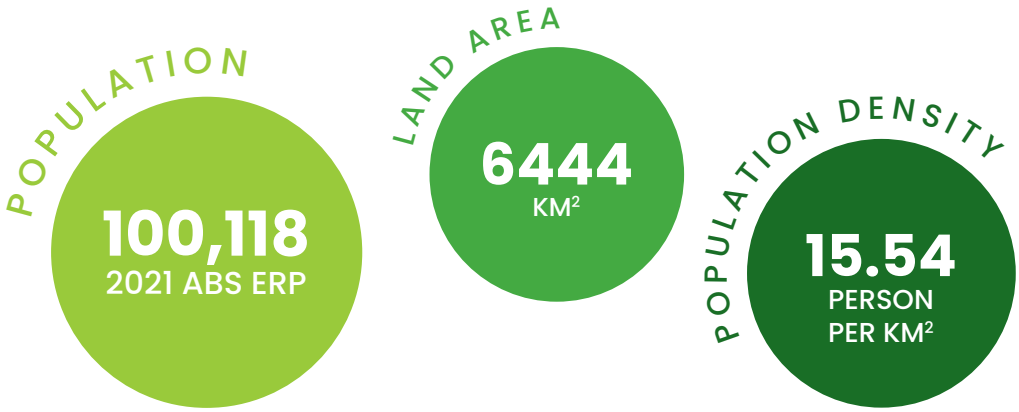
The region is internationally recognised by iconic Australian brands such as:

- Bundaberg Rum
- Bundaberg Sugar
- Bundaberg Brewed Drinks

to name a few innovative companies that call Bundaberg home.

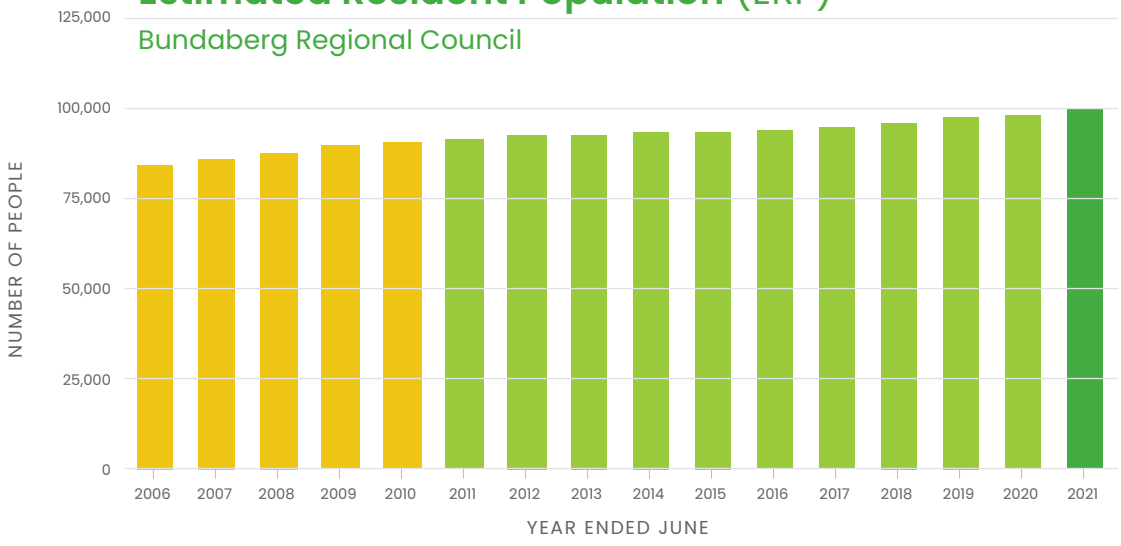
Important statistics

as at 30 June 2021



Estimated Resident Population (ERP)

Bundaberg Regional Council



Source: Australian Bureau of Statistics, Regional Population Growth, Australia (3218.0) Compiled and presented by .id (informed decisions)

Vision

The Bundaberg Region will transition toward a zero-waste and circular economy to promote waste avoidance, reuse and recycling where possible. Where possible suitable residual waste will be used to generate energy rather than being landfilled.

This approach will generate jobs and economic activity in the Bundaberg Region and will move away from a linear waste disposal system of make, take and dispose. Wherever possible recovered resources will be utilised within the Bundaberg or Wide Bay regions.

Strategic Alignment

This plan joins with other key strategies and plans that guide Council.

The strategic context while the Waste Plan was developed included:

1. 2030 Agenda for Sustainable Development/United Nations Sustainable Development Goals/Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable
2. National Waste Policy 2018 and Action Plan 2019
3. Queensland Waste Management and Resource Recovery Strategy 2019
4. Bundaberg Regional Council Corporate Plan 2021-2026

Principles of Waste Management

The Waste Management Principles outlined in the **Waste Reduction and Recycling Act 2011** will guide the department in Waste Management decisions:

- The polluter pays principle – all costs associated with minimising the amount, containing, treating and disposing of waste; and rectifying environmental harm caused by waste should be borne by those who generate the waste;
- The user pays principle – all costs associated with the use of a resource should be included in the prices of goods and services that result from the use;
- The proximity principle – waste and recovered resources should be managed as close to the source of generation as possible; and
- The product stewardship principle – there is a shared responsibility between all persons who are involved in the life cycle of a product for managing the environmental, social and economic impact of the product.

Waste and Resource Recovery Hierarchy

If not managed waste can have significant impacts on the environment, affecting the water we drink, the air we breathe and the natural environment.

Waste in landfill represents a lost resource. It's a waste of the raw materials, energy and water that went into creating the once useful items that are now 'waste'.

Organic materials such as food and green waste in landfill are hazardous as they release methane as they break down greenhouse gas. Over half of household waste placed in red lidded residual waste bins is organic material and presents a large opportunity to reduce the impacts of landfill waste and to create nutrient rich soil products which is needed by our strong agricultural sector.

Waste avoidance and reduction are the most preferable management options as per the waste and resource management hierarchy below.

Council provides an extensive recycling service that is under-utilised by residents. Therefore, the Plan focuses on improving recycling so that only true residual waste that cannot be recycled is sent to landfill.

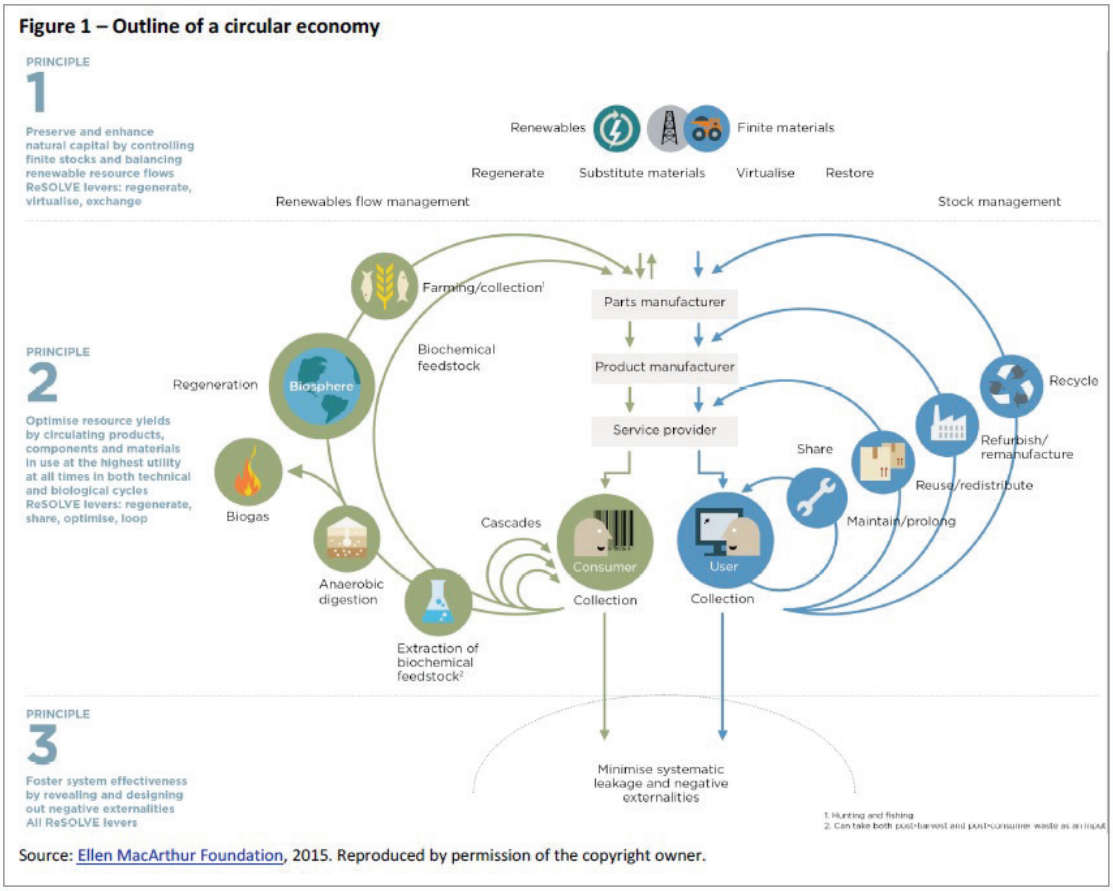
As the Bundaberg Region's population continues to grow, so too does resource consumption. Council is transitioning into a circular economy to help address these economic challenges by 'closing the loop' in resource consumption.

A circular economy model is the production and consumption of resources that seeks to keep resources in their highest value for as long as possible. This happens by extending the life cycle of materials through recovery and regeneration of materials into new products while extending the life cycle of products. Underpinning the circular economy model are three key principals:

1. Designing out pollution and waste
2. Products and materials are kept in use
3. Natural systems are regenerated

By aligning to the principals of circular economy, Council is also supporting the Queensland Government in the creation of jobs and a stronger economy to transition to a net zero waste and zero net emission economy by 2050.

Figure 1 – Outline of a circular economy



Source: Ellen MacArthur Foundation, 2015. Reproduced by permission of the copyright owner.

Source: https://www.stateoftheenvironment.des.qld.gov.au/circular-economy

The Plan summarises the direction for waste management that is generated from households, commercial and industrial premises and the construction and demolition sector.

The types of waste that are or may be managed and broadly addressed within this plan include:

- **Waste from households**
- **Comingled recyclables – paper, cardboard, plastics, steel, aluminium etc**
- **Food and garden organics**
- **Scrap metal**
- **E-waste and whitegoods**
- **Wood and timber**
- **Textiles and clothing**
- **Agricultural plastics such as trickle tape and mulch film**
- **Cardboard and paper**
- **Tyres**
- **Building materials including concrete and other masonry**
- **Clean soils, asphalt, muds and silts and rocks**
- **Paint cans, gas cylinders. Flares, EPIRBS, fire extinguishers etc.**
- **Bulky goods, furniture and mattresses**
- **Product Stewardship Scheme items, drumMuster, Paintback, Fluro cycle**

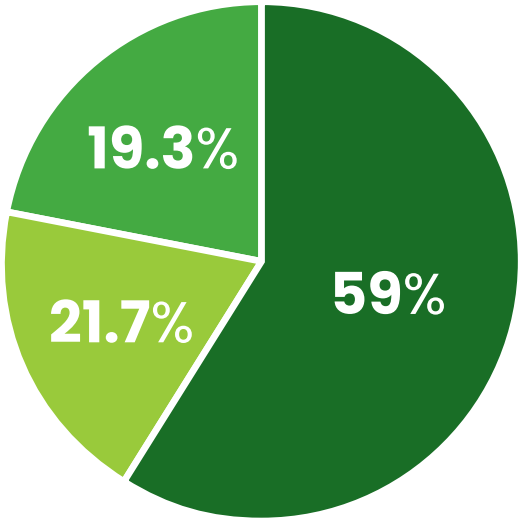
Current Waste Management Status

In 2021/22 the Bundaberg Regional Council managed over 94,500 tonnes of waste, recovering 25% of all waste received. Clean fill made up 26% of all materials received and is used for operational purposes at Council's landfills and is considered a valuable resource.

Waste collected from households and commercial premises through the kerbside service make up 59% of all waste landfilled, with the remaining 41% delivered directly to Council facilities by residential and commercial customers.

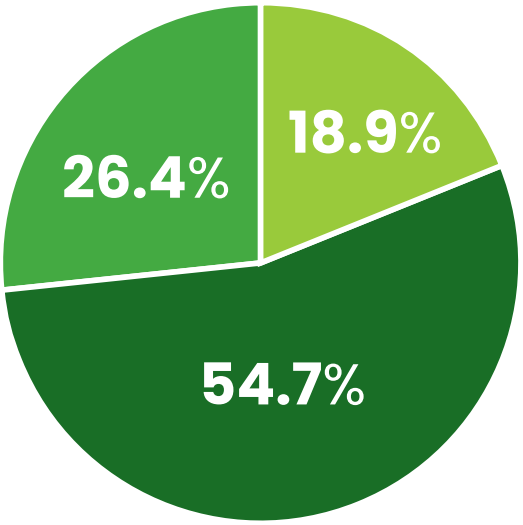
Waste landfilled by method

- Kerbside waste
  31,551 tonnes
- Front lift
  10,346 tonnes
- Self-haul
  11,605 tonnes



Waste recovered and landfilled 2021-22

- Recovered
  24,246 tonnes
- Clean earth
  33,914 tonnes
- Landfilled
  70,288 tonnes



The total waste landfilled is detailed in the table below.

Estimated waste tonnages 2021/22

Type	Waste source	Tonnes	% of waste to landfill	% of total materials handled
	Municipal solid waste	42,743	60.81	27.81
	Construction and demolition	6677	9.50	4.34
	Commercial and industrial	20,868	29.69	13.58
	Waste to landfill total	**70,288**	**100**	

The table below highlights the

Council and commercial recycling estimates for 2022/2023

and shows that a significant amount of recovery is occurring via the commercial sector.

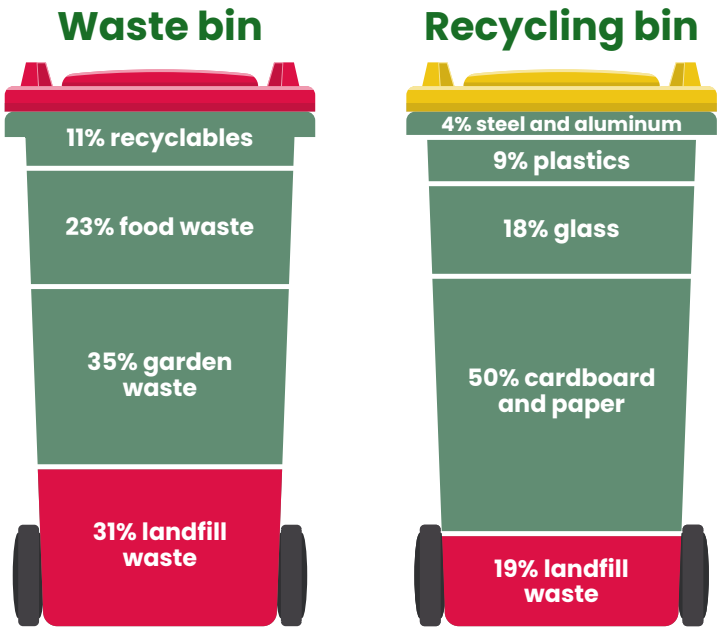
Private recycling and resource recovery estimates (tonnes) 2022/23

Type of resource	Council facilities	Commercial facilities	Total
Greenwaste	4,500	22,000	26,500
Steel	2,500	7,600	10,100
Concrete and bricks	3,500	10,000	13,500
MRF (Comingled & CRS)	7,600		7,600
Cardboard		6,700	6,700
Other materials including: Ag plastic, E-waste, Paint, Tip Shops etc	1,000		1,000
TOTAL	**19,100**	**46,300**	**65,400**

Approximately 69% of the waste from the residential red lidded bins currently disposed of to landfill could be diverted through composting or recycling. This would increase the lifespan of Council's landfills and provide economic opportunity by using those diverted materials as resources.

23% of material in red lidded residual waste bins is food organics, 35% is garden organics, 11% is recyclable materials and only 31% needs to be disposed to landfill.

19% of material in yellow lidded recycling bins should be placed in the red lidded residual waste bin. Reducing contamination in yellow lidded recycling bins will increase the value of recyclable materials.

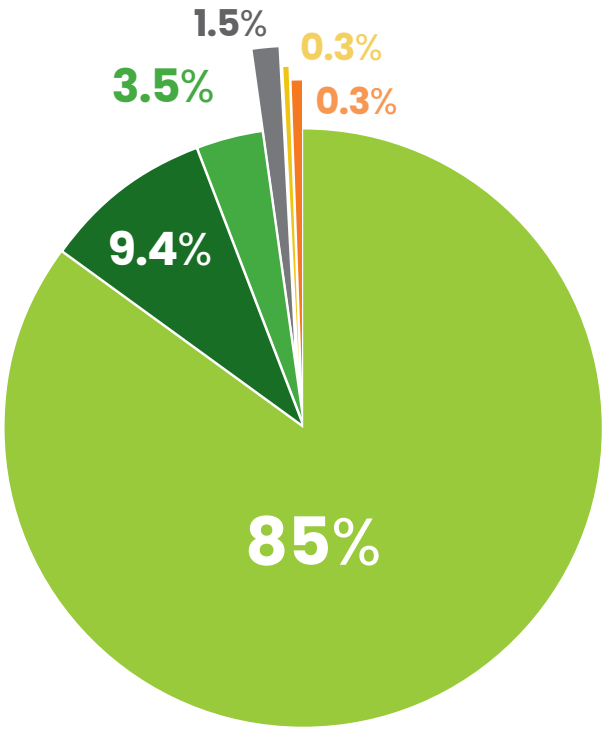


All eligible Bundaberg Regional residential waste services have access to a weekly 240 L red lidded residual waste bin and a fortnightly 240 L yellow lidded recycle bin service. Recyclables are collected by Council's in-house waste collection team and transported to the Materials Recovery Facility (MRF) which is operated by Impact Community Services which employs 27 supported workers with disabilities. The MRF is a low-tech facility that is operated to maximise employment available for the workers within the Impact team to enable them to have meaningful employment while providing an important service to the community. Much of the sorting of the recyclables is by hand.

Illegal Dumping

- **Mixed** 111.69 tonnes
- **Tyres** 12.33 tonnes
- **Mattresses** 4.62 tonnes
- **Green waste** 2 tonnes
- **Oil** 0.4 tonnes
- **Chemicals** 0.37 tonnes

Total = 131.41 tonnes
Number of loads = 494



Illegal dumping and littering produces a significant issue for the Bundaberg Region with 131 tonnes of illegal dumping and littering being disposed of to landfill in the 2021/22 year.

As of April 2023, we have five active landfills, seven transfer stations, one MRF and one waste collections depot in the waste facility network. The Landfills and transfer stations are located within very close proximity to the urban centres and are within a 20 minute drive for over 95% of residents. As can be seen below, the Bundaberg Region has significant landfill space for the next 30 years with the estimated life of each of the five landfills detailed.

Existing transfer stations and landfills

Waste facility	Landfill or transfer station	Estimated remaining landfill life	Estimated airspace m^3
University Drive	Landfill and transfer station	20 – 25 years	600,000
Qunaba	Landfill	5 – 10 years	300,000
Bundaberg Regional Landfill (Cedars Road)	Landfill	25 – 30 years	2,300,000
Meadowvale	Transfer station		
Avondale	Transfer station		
South Kolan	Transfer station		
Tirroan	Landfill (converting to transfer station)	5 – 10 years	5,000
Booyal	Transfer station		
Buxton	Transfer station		
Childers	Landfill (converting to transfer station)	5 – 10 years	5,000
Woodgate	Transfer station		

Childers and Tirroan Waste Facilities are currently being converted into transfer stations as there is limited airspace left in each of the landfills. A map highlighting the location of Council's Waste and Recycling Facilities is available in Appendix A.

There have been significant improvements in the efficiencies in the utilisation rate of waste disposed of at the landfills within the Bundaberg Region with the utilisation rate improving from 544 kg/m^3 in 2015 to 891 kgs/m^3 in 2022 as detailed in the below table.

Financial year approximate utilisation rate kg/m^3

All sites										
	2015	2016	2017	2018	2019	2020	2021	2022		% change from 2015
Annual fill rates m^3	120,215	117,583	121,045	94,909	99,569	101,213	87,535	86,992	↓	-27.6%
Total tonnage	65,424	73,345	72,924	81,430	77,424	67,642	69,477	77,538	↑	18.5%
Utilisation rate kg/m^3	544	624	602	858	778	668	794	891	↑	63.8%

Waste Management Moving Forward

The Bundaberg Region's population is estimated to increase from approximately 100,000 in 2022 to nearly 110,000 by 2030 – which is about 1% growth each year. The below table highlights the predicted changes in waste landfilled and that recovered currently and in 2023 both with the interventions within the plan and without.

Breakdown
Waste to landfill / material diverted from landfill

Waste to landfill	2021/22	Predicted by 2030 without intervention	Predicted by 2030 with interventions in plan
Municipal solid waste	44,000	48,400	38,000
Commercial and industrial Construction and demolition	32,000	35,200	33,500
Total landfilled (tonnes)	76,000	83,600	71,500
Material diverted from landfill	**2021/22**	**Predicted by 2030 without intervention**	**Predicted by 2030 with intervention**
Recycling bins	6,000	6,300	7,250
Organic waste (self-hauled and FOGO bins)	4,500	4,500	16,300
Other recycled materials and items including CRS	7,000	7,700	7,700
Waste to energy (outside the region)	0	0	3,200
Other recycled materials (commercial recyclers)	46,300	50,900	50,900
Total diverted (tonnes)	63,800	69,400	85,350
Total Tonnes	139,800	153,000	156,850

Total landfilled (% of waste)	54.36%	54.64%	45.58%
Total diverted (% of waste)	45.64%	45.36%	54.42%

This waste reduction plan proposes that approximately 63% of residents with a waste service be provided with, a yellow lidded recycling bin collected fortnightly – processed and sorted at a materials recovery facility, a green lidded FOGO bin collected weekly – composted at a local composting facility and a red lidded residual waste bin collected fortnightly – disposed of to landfill.

The remainder of residents be provided with, a yellow lidded recycling bin collected fortnightly – processed and sorted at a materials recovery facility and a red lidded residual waste bin collected weekly – disposed of to landfill.

The table below highlights the proposed changes projected for the 26,400 households Waste Services currently and in 2026 when the FOGO is proposed to commence with approximately 7,000 tonnes per annum of FOGO and 800 tonnes of recyclables to be diverted away from the red lidded residual waste bin

Projected changes to waste types collected for FOGO serviced households (26,400)

Waste	Component	2022 Current tonnes	2026 Current tonnes	Tonnes difference
Residual bin	Recyclables	2,090	1,562	- 528
	Food organics	4,446	2,044	- 2,402
	Garden organics	6,726	1,198	- 5,528
	Residual	5,738	5,748	10
Residual bin total		19,000	10,552	- 8,448
Recycle bin total	Recyclables	4,410	4,938	528
FOGO bin total	FOGO (collected)	0	12,144	12,144
	* FOGO (diverted from residual bin)	0	7,920	7,920
	Total combined	23,410	27,634	4,224

Waste and Recycling Targets

The Queensland State Government has the following long-term targets:

- 15% reduction in household waste per capita by 2030
- 70% of waste recovered and not in landfill by 2030
- 60% increase in recycling rates across all waste types by 2030

These targets are reductions based on 2018 baseline data and result in the following specific progressive targets for Council.

Our Targets - 2030

Below are Bundaberg Regional Council's waste reduction targets for households (per capita):

Waste reduction targets for households

	2018 baseline	2025 reduction target	2030 reduction target
State target		10%	15%
for Bundaberg Regional Municipal Solid Waste (MSW)*	1,531 kg	1,378 kg	1,301 kg

Waste diversion from landfill targets
(recovery rate as a percentage of total MSW generated)

	2018 baseline	2025 reduction target	2030 reduction target
State target		55%	70%
for Bundaberg Regional MSW*	33%	35%	60%

Recycling Rates
(as a percentage of total waste generated)

	2018 baseline	2025 reduction target	2030 reduction target
State target		50%	60%
for Bundaberg Regional MSW*	33%	55%	60%

*Municipal Solid Waste (MSW) includes residential wheelie bin waste, self-haul residual waste, public place bins, street sweepings, and waste from other Council activities.

Tracking Progress

A review of the Bundaberg Regional Council Waste Reduction and Recycling Plan will be completed every five years to ensure it remains current and relevant and will be updated as necessary.

A biennial report card of success measures will be prepared and will provide a feedback tool to the Bundaberg Region community.

Key success measures will include:

- Waste generation
- Kerbside recycling rate
- Waste facility recycling rate
- Recyclables lost in kerbside
- Recycling contamination
- Green waste lost in kerbside
- Food waste lost in kerbside
- Progress in implementation of FOGO service
- Progress in waste diversion by waste to energy
- Utilisation rate for landfill airspace
- Actions in waste avoidance

Themes for Action

Theme
1

Waste Avoidance and Education

The aims of waste avoidance and education is to encourage waste avoidance, reduction and re-use.

It also aims to educate all stakeholders including households, community groups, businesses and government agencies to actively reduce waste creation and maximise resource recovery and recycling of unavoidable wastes.

Waste avoidance, reduction and re-use will require all community members to make changes at home, work, school and at their workplaces. There must be a change in the way we live our lives to avoid the creation of waste in the first place.

The waste hierarchy prioritises waste avoidance, reduction and reuse over recycling and disposal. Council will lead by example in reviewing its operations to drive waste avoidance improvements. Council will also help the community and the business sector generally to make positive actions on waste avoidance, reduction, and reuse.

Education is the key element to any behavioural change in the management of waste. Council will provide information, support, and tools to assist with the transition to a zero-waste community by 2050.

Waste cannot continue to be viewed as something to be buried in the ground and instead all materials need to be considered a resource that can be re-used and repurposed into other products. It is intended for Council to have actions to:

- promote waste avoidance
- promote waste reduction and education
- support facilities that repair and recycle materials
- support charity recycling businesses such as thrift shops
- promote Council's tip shops.

Education is the key to promoting this behavioural change of waste avoidance, reduction and re-use. We will build upon the current waste and recycling communications and develop a Waste Reduction and Recycling Education Plan to communicate and educate Bundaberg Region residents into the future.

Council is committed to reducing the negative impacts of illegal dumping and littering. Council will continue to undertake compliance and enforcment actions to minimise the occurrence of illegal dumping and littering.

Theme
2

Capturing Organics

The aim of the capturing organics theme is to reduce the loss of organics to landfill to as close to zero as possible.

The priority is to recover food and garden organics from households via the proposed FOGO green lidded bin to most domestic residential premises within the Bundaberg Region. Currently approximately 58% of the material within the red lidded residual bin is either food or garden organics and this equates to approximately 17,400 tonnes of FOGO being landfilled annually via the weekly waste collection service in 2021/22.

Council will also partner with existing commercial composters and businesses to divert organics wherever possible away from Landfill. The focus on the avoidance of organic waste being created will be addressed via Council's participation in the statewide Love Food Hate Waste program.

Organic material in landfill breaks down and generates methane and carbon dioxide which are harmful greenhouse gases. The organic material also is a significant contributor to the creation of leachate which is a liquid pollutant within landfills that can gradually move over time into groundwater near the landfill. The composting of organic materials, assists agricultural businesses in the Bundaberg Region as compost is a valuable source of nutrients and microbial organisms, assists with reduction in water loss and creates a soil that is healthy and captures carbon in its profile.

Council has regularly received feedback from residents requesting a green waste or FOGO bin service as they see the benefits of such a service and/or have moved to Bundaberg and their previous Council offered such a service or third bin. The main reason that an organics service has not been provided to Bundaberg Region residents is the costs of collection and processing of the organic materials. With changes to the waste levy with regard to municipal solid waste, the costs of the Waste Levy are increasing, and the provision of an organics services is becoming more favourable. There, has also been a push at all levels of the community to rescue our carbon footprint and reduce the effects of global warming.

Food waste is a serious issue with approximately one in every five bags of food purchased being wasted and ending up in household wastes bins rather than being consumed. The National Food Waste Strategy sets an ambitious target of halving food waste by 2030.

Councils' four main strategies to reduce organics being landfilled are:

- the commencement of a weekly FOGO bin service in July 2026 to the majority of domestic households (subject to funding support from the State Government and a successful procurement process for the collection and composting allowing Council to make a final decision to proceed)
- promotion of the Love Food Hate Waste program
- supporting home and community composting initiatives
- partnering with Commercial organics composters and other businesses to maximise recovery and value of organics

A green lidded FOGO bin service would allow residents to place their food and green wastes in a green lidded FOGO bin for weekly collection. Council has endorsed a FOGO business case at its February 2023 Council meeting and is progressing with a FOGO trial of 1300 premises. Council is also moving forward with a procurement process for FOGO to commence in July 2026 for approximately 24,600 households.

The costs to implement and run a FOGO service are significant. As the costs of collecting and disposing of waste increases, collecting and processing FOGO is likely to become increasingly cost effective. Council will seek the support of the State Government to implement FOGO in our region without introducing an unreasonable financial burden upon our community. Changing the amount of food waste created in households will also be a priority for the theme.

A green lidded FOGO bin service would accept all food waste and garden waste in a new green lidded FOGO bin, and this bin would be collected every week. The red lidded residual waste bin would then, within the FOGO service areas, become a fortnightly service with the yellow lidded recycle bin being serviced on the alternate fortnight.

There is considerable confusion in the community about what items are compostable such as cardboard and timber forks etc. Council's approach is to limit items to be placed into the green lidded FOGO bin to only food waste and garden organics.

Timeline for potential commencement:

Dates	Actions
1/10/2023 to 1/12/2023	Council commences trial of 600 households with FOGO. The trial expands to 1300 households. Council commences an education campaign to the Community of the potential FOGO rollout in 2026
6/2023 to 5/2024	Council seeking funding support for the new FOGO bins, kitchen caddies and replacement costs for new red lids for residual waste at an estimated cost of $1,782,000 and an additional funding commitment from the State Government to subsidise the operational costs of the collection and processing of FOGO by $60 per property service for each of the first three years of the FOGO service at an estimated cost of $4,752,000.
6/2023 to 5/2024	Council seeks confirmation from the Department of Science and Environment that open windrow composting for FOGO is an acceptable composting technology for our region
5/2024 to 9/2024	Council decides to proceed with an Expression of Interest for a FOGO service starting in 2026 subject to successful State funding grant applications
10/2024 to 3/2025	Council tenders for separate FOGO processing and FOGO collection contracts for 10-year terms subject to successful state funding grant applications
5/2025	Council considers tenders received and decides to award tender for the processing of FOGO for a 10 Year contract and the collection of FOGO bin for a 10-year contract
7- 10/2026	Commence four month roll out of FOGO weekly 240 L, fortnightly 240 L residual, and fortnightly recycle 240 L services to 26,400 single dwelling and duplexes in selected areas
6/2026 to 12/2026	Commence educational campaign on FOGO weekly 240 L, fortnightly 240 L residual and fortnightly recycle 240 L services to 24,600 single dwelling and duplexes in selected areas

Theme
3

Use the right bin

The aim of the use the right bin theme is to ensure residents use their yellow, green, and red lidded bins correctly.

That is that only recyclables are placed in the yellow lidded recycle bin and that only food organics and garden organics are placed in the green lidded FOGO bin. Most importantly only residual materials are placed in the red lidded residual bin, therefore there should be no recyclables or FOGO materials in this bin.

Approximately 58% of the material in the red lidded residual bin is Food or Garden Organics from residents' houses and backyards. This is a tremendous loss of resources that are being disposed of to landfill.

Bundaberg Region residents are willing recyclers yet approximately 70% of what is in the red lidded residual bin could be kept out of landfill if the yellow lidded recycle bin was fully utilised or the organic material was composted either at home or disposed of via a commercial green waste composter.

With this much recyclable material going to landfill each year we are under-utilising landfill capacity and creating methane which is a greenhouse gas. This leads to a permanent loss of these materials from the environment and economy. This material could have been recycled and used to make new products for use or processed into high value composts which improve agricultural production and increase carbon storage and replacement into our region's carbon degraded soils.

In our region's yellow lidded recycle bins 19% of materials do not belong there. These contaminants include food scraps, garden organics, nappies and soft plastic bags. All recyclables collected in the yellow lidded recycle bin are transported to Council's MRF where Impact Community Services' workers hand sort the material with the assistance of some mechanical sorting equipment.

The use the right bin program can improve the quantity and quality of materials recovered for recycling. Since yellow lidded recycle bins were introduced in the 1990s in Bundaberg, Council together with Impact Community Services has been providing educational information and media coverage of the ways to recycle wastes. Council will continue to assist residents and businesses to ensure they use the right bin to maximise resources recovered and minimise waste to landfill.

Educational and legislative levers will both be used to maximise resources recovered and minimise any contamination and waste to landfill. Harmonising bin systems and messaging throughout the state will reduce

confusion and support Bundaberg Regional residents to use the right bin.

Council needs all residents to play their part by using the right bin. For example, in the red lidded residual waste bin there is currently approximately 1.5 kgs per week of recyclables per household which can easily be placed in the yellow lidded recycle bin instead and this would increase the volume of materials diverted from landfill.

Conversely approximately 0.75 kg per week of waste materials per household are being placed in the yellow lidded recycle bin that should be placed in the red lidded residual waste bin which contaminates and slows the recycling process and reduces the quality of the recyclables produced.

Bundaberg Regional Council and other local governments have established bin tagging where a tag is placed on any bin that has contamination. This tag provides direct feedback to the resident on specific incorrect items and this method has been found to be an effective tool in reducing the yellow lidded recycle bin contamination rates. Currently, this process is only undertaken in a limited fashion and a dedicated program is proposed to maximise recovery of resources and to minimise contamination.

Contamination can be identified via the collection truck cameras which identify both the residential premises and the contaminated bin or via visual inspection from bin auditors. For bins with obvious contamination the collection truck operator or the auditor can tag the bin as being contaminated and the bin will not be serviced until the contaminants are removed. Residents can contact Council if they need any future assistance or details of their contamination.

Residents are expected to use the right bin however for some residents there has been continuous contamination and these individuals will be managed through the Use the Right bin policy and Council's Waste Management Local Law to either achieve a basic level of compliance or otherwise be managed by the removal of their yellow lidded recycle bin and or green lidded FOGO bin.

Theme
4

Recovery of Resources

The aim of the recovery of resources theme is to ensure resources are kept within the economy for as long as possible and are not lost to landfill.

Council will work with all sectors to expand and improve Product Stewardship Schemesto embed circular economy principles. Council will support and seek to grow local resource recovery businesses to increase material recovered. Council will also actively recover resources at our waste and recycling facilities. A key part of the before mentioned Council improvement involves enhanced services and infrastructure focussed on resource recovery.

Council will apply circular economy principles to better manage and extract value from its recovered resources. Key materials include outputs from the MRF, timber pallets, rock, concrete, asphalt scrapping, steel, non-ferrous metals, E-waste, mattresses, engine and cooking oils, paint, tyres and mud/silts and street sweepings.

It has been identified that the Wide Bay Burnett Region would benefit from a Regional Glass Recycling Beneficial Reuse Facility. It is proposed to work with regional partners to establish a glass recycling plant within the Wide Bay Burnett Region.

The use of Waste to Energy Facilities outside of our region where appropriate to recover the energy from these materials. A focus will be on agricultural plastic mulch, residuals from resource recovery activities and residuals from a dirty MRF (Construction and demolition (C&D) and commercial and industrial (C&I) resource recovery facilities).

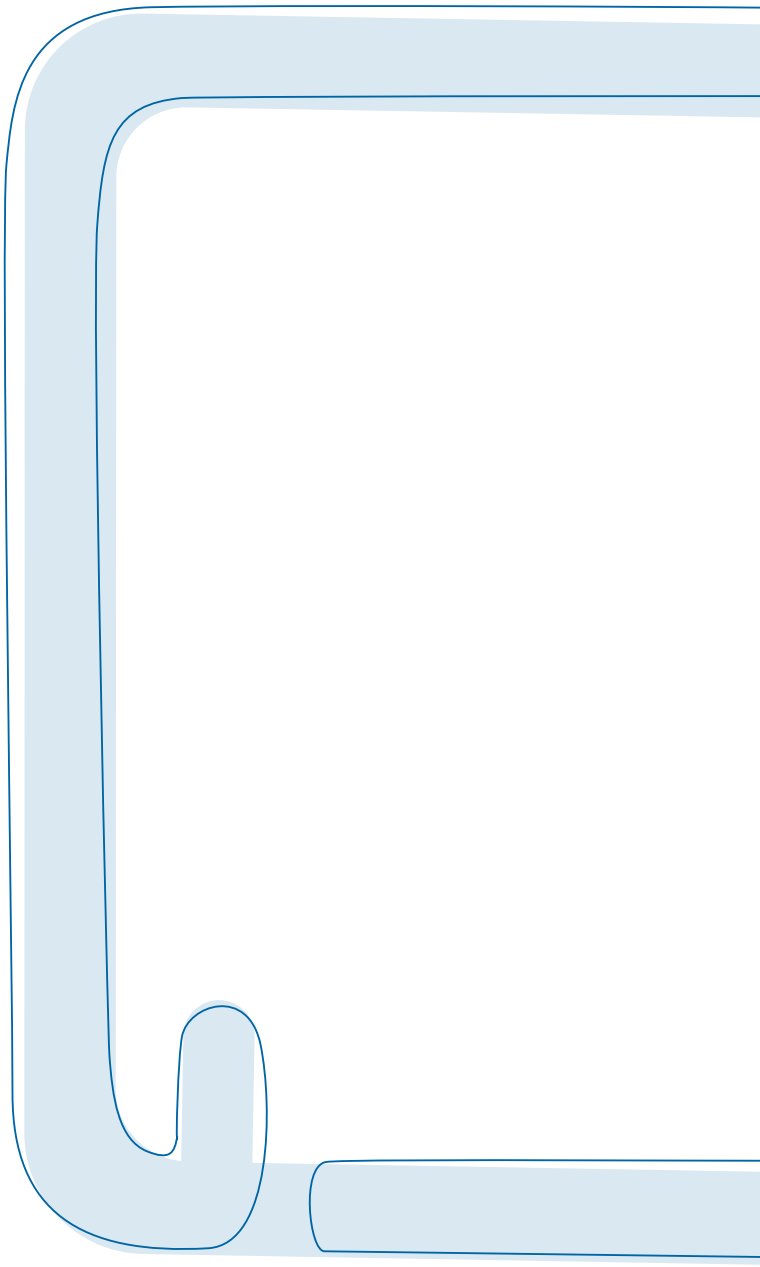
It is intended for Council to promote manufacturing and re-processing of recovered resources within the Bundaberg and Greater Wide Bay regions. Manufacturing is already one of Bundaberg's greatest strengths and there are significant opportunities, recycling infrastructure and reprocessing to add to this strong foundation.

The Department of State Development, Infrastructure, Local Government and Planning has a commitment to working with the resource recovery industry to harness the potential value of resources traditionally discarded and improve sustainability. To this end a recycling enterprise precincts "how to" guideline and location strategy have been published. The location strategy identifies the Bundaberg State Development area as a potential location for the establishment of a recycling enterprise precinct. A copy of the relevant sections of the location guide is included in Appendix B.

Council will actively work with the State Government and the private sector to establish a Recycling Enterprise Precinct within close proximity to the city of Bundaberg.

It is intended for Council to have actions to:

- promote and support current and future Product Stewardship Schemes
- support and seek to grow resource recovery activities within the private sector and Council's waste department
- investigate and promote the establishment of a dirty MRF (C&D and C&I Resource Recovery Facility) to be established in the Bundaberg Region
- investigate and promote the establishment of a recycling enterprise precinct in the Bundaberg Region
- Investigate options to use out of region waste to energy facilities for selected waste types.



Theme
5

Sustainable Waste Services and Infrastructure

The aim of the sustainable waste Services theme is to ensure that waste and recycling services provided to the community are cost effective, safe, easy to use and assist in achieving significant reductions in waste to landfill and increased resource recovery and recycling activities.

Existing infrastructure must also be maintained to ensure they continue to function, and their replacement is deferred as long as practical.

The additional or upgraded infrastructure will be included in Council's 10 year Waste and Recycling Capital Improvement Plan and Council's Master Plans for the three largest waste facilities being Bundaberg Regional Landfill, Bundaberg and Qunaba Waste Facililties.

The staged final capping of the Bundaberg and Qunaba Waste Facililties are an important infrastructure project that will be undertaken during the life of this plan. Upgrade and maintenance of the Material Recovery Facility at Bundaberg Waste Facility will also be a focus.

The Bundaberg Waste Facility will see improvements such as an in-bound and out-bound weighbridge and a new office building to house all Waste and Recycling administration and operational staff in one location.

The Qunaba Waste Facility is projected to have a Resource Recovery Facility, Transfer Station and Tip Shop Super Centre constructed in the life of this plan.

The Qunaba site may also include a dirty MRF (C&D and C&I Resource Recovery Facility), In-vessel Composting facility and new collections depot that will be included in the master plan for the site but may not be constructed during the life of the plan.

The Bundaberg Regional Landfill currently has a fill plan for the landfill that has an average maximum height of 20 m, it is proposed to increase this height to 50 m at its highest point to maximise the value of the landfill for the Bundaberg Region. Currently under the approved fill plan there is approximately 2,300,000 m^3 of airspace available whereas with the increase in height of the landfill 4,300,000 m^3 of airspace will be available or a doubling of the airspace. The increase in utilisation of the site will increase its remaining life from 25 years to 50 years (assuming FOGO and other resource recovery activities occur). The value of this in today's dollars is approximately $40,000,000 or $800,000 per annum based on capital savings of $20 per m^3 of airspace.

The details of the increase in Landfill Height and Volume are included in Appendix C. Council will need to change the court order for the landfill and the current environmental authority.

The Bundaberg Regional Landfill currently has a tonnage waste to Landfill limit of 50,000 tonnes per annum. This limit is insufficient to cater for the region's annual waste volumes needed to be landfilled once the Qunaba and University Drive landfills are filled. The 50,000 tonnes limit is to be increased to 100,000 tonnes per annum.

The Bundaberg Regional Landfill also has significant limits on the number and type of waste disposal vehicles that can utilise the facility each week. These limits reduce the efficiency of the region's waste transport system and adds significant additional costs and time delays to the waste transfer system. Additionally, this double handling of waste increases Workplace Health and Safety Risks and unnecessarily increases the waste transport systems carbon emissions. There are also a number of unnecessary operational requirements of the Bundaberg Regional Landfill which should be removed.

Council will have actions to:

- develop Master Plans for University Drive, Bundaberg Regional and the Qunaba Waste Facilities
- develop a ten year Capital Improvement Plan for Waste and Recycling Facilities
- continue with the staged Final Capping of the University Drive, Bundaberg Regional and Qunaba Landfills
- investigate the final capping of the Childers, Tirroan and Meadowvale Landfills
- undertake infrastructure improvements at University Drive, Bundaberg Regional and the Qunaba Waste Facilities
- proceed with the increase in final height and fill volume for the Bundaberg Regional Landfill
- proceed with the changes to the court order and environmental authority for the Bundaberg Regional Landfill that limits the tonnes of waste disposed, the type and number of waste transport vehicles per week and other unnecessary operational requirements that limit the facilitiy's use.

Council will plan and develop both waste infrastructure and services that will serve the community of the Bundaberg Region well into the future. Some infrastructure and services may be delivered via partnerships rather than directly by Council.

Tracking Progress Actions

The actions for each of these themes will be tracked on either a short-term or a medium-term basis

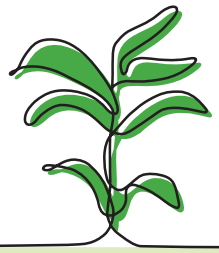
- Short-term will be from years one to three
- Medium-term will be from years four to seven.

It is intended for this document to be a living document with updates undertaken on a yearly basis to meet legislative requirements, industry developments and demographic changes to the region.

Implementation Plan

The below shows the **proposed actions for each of the five themes** Council has committed to aim towards meeting the 2030 waste reduction and recycling targets set by the Queensland Government.

Theme	Action	Term
	Definition: **Short** *Term – Years 1 – 3;* **Medium** *Term – Years 4 - 7*	
Waste avoidance and education	Develop on an alternate yearly basis an internal Waste and Recycling Biennial Report	Short
	Promote and develop partnerships with charity recycling businesses (thrift shops) and other community groups to maximise hiring, repair, re-use and recycling of materials and recovery of energy from waste	Short
	Promote the safe handling and disposal of hazardous items such as batteries, chemicals, gas bottles, flares, ammunitions etc. via methods other than disposal in waste bins	Short
	Develop a waste avoidance and education plan	Short
	Promote and develop the Qunaba Tip Shop into the main outlet for recovered goods for sale	Medium
	Consider the introduction of selected landfill bans on items that can readily be recycled or otherwise reprocessed such as concrete, e-waste, steel, oils, green waste, comingled recyclables, cardboard and paper etc.	Medium
	Consider a dedicated and funded program to promote the 9Rs of the circular economy: Refuse, Reduce, Resell/Reuse, Repair, Refurbish, Re-manufacture, Repurpose, Recycle, Recover Energy and Re-Mine	Medium
Capturing organics	Participation in the State Governments environmental and healthy lifestyle program - Love Food Hate Waste	Short
	Supporting home and community composting initiatives	Short
	The commencement of a weekly FOGO bin service in July 2026 to the majority of domestic households (subject to funding support from the State Government and a successful procurement process for the collection and composting allowing Council to make a final decision to proceed)	Medium
	Partnering with commercial organics' composters and other businesses to maximise recovery and value of organics	Medium
Use the Right Bin	Review Local Laws regarding Waste Management to allow effective actions to reduce contamination and maximise recovery	Short
	Complete a domestic kerbside waste and recycling audit every two years	Short
	Establish a waste audit and education program to monitor yellow lidded recycle and green lidded FOGO bins to reduce contamination and maximise waste diversion from landfill by providing direct feedback and information to residents when action is needed	Short
	Promote the Council's recycling waste collection service to businesses throughout the region to increase the number of recycling services with the intention of maximising recycling and minimising waste to landfill	Short
	Develop the use the right bin program and policy	Short



Theme	Action	Term
Recovery of resources	Promote and support current and future Product Stewardship Schemes	Short
	Investigate and promote the establishment of a recycling enterprise precinct in the Bundaberg Region	Short
	Investigate options to use out of region waste to energy facilities for selected waste types	Short
	Explore contracting out tip re-use shops function in the future	Medium
	Work with regional partners to establish a glass recycling plant within the Wide Bay Burnett Region	Medium
	Support and seek to grow resource recovery activities within the private sector and Councils' waste department	Medium
	Investigate and promote the establishment of a dirty MRF (C&D and C&I Resource Recovery Facility) to be established in the Bundaberg Region	Medium
Sustainable waste services and infrastructure	Review and update on a bi-annual basis the disaster sub-plan for waste and recycling	Short
	Develop Master plans for Bundaberg Regional Landfill, Bundaberg and Qunaba Waste Facililties	Short
	Develop a ten year Capital Improvement Plan for Waste and Recycling Facilities	Short
	Expand defined waste service area when road network is upgraded to increase the number of households able to access a waste and recycling service	Short
	Complete construction of Tirroan transfer station	Short
	Change the court order and environmental authority for the Bundaberg Regional Landfill to increase the tonnes of waste accepted to 100,000 tonnes per annum, increase the fill height to a maximum height to 110 AHD, remove limits on the number and types of waste disposal trucks able to use the site and other unnecessary limitations	Medium
	Upgrade the Material Resource Recovery Facility (MRF) at University Drive	Medium
	Continue with the Final staged Capping of the University Drive, Bundaberg Regional and Qunaba Landfills	Medium
	Investigate the final capping of the Childers, Tirroan and Meadowvale Landfills	Medium
	Undertake infrastructure improvements at University Drive, Bundaberg Regional and Qunaba Waste Facilities	Medium

Bundaberg Regional Council **Internal Waste Reduction and Recycling Plan** 2023 – 2030

Scope

Council's Internal waste to landfill for the 2021/22 year was 2781 tonnes from 1046 loads.

This Waste Reduction and Recycling Plan 2023-2030 (the Plan) has been developed by Bundaberg Regional Council to provide strategic goals and targets for waste management, while also ensuring that all legislative requirements and government objectives are met.

It will transition the department's waste management away from the current 'take-make-use-dispose' approach and create a new more circular system that keeps materials in use for longer, extracting the maximum value from them.

The plan will be actioned by:

- reducing the amount of waste created in the first instance
- maintaining, re-using and repairing products to extend their lives
- maximising the value of materials before energy can be recovered or they must be discarded.

This action plan applies to all areas of the Bundaberg Regional Council's operations.

Outcomes

Reducing the impacts caused by waste on the environment will help achieve the following outcomes:

- reduction in the amount of waste that goes to landfill, is littered or illegally dumped
- reduction in waste-related greenhouse gas emissions
- reduction in the long-distance transport of waste
- savings from avoiding unnecessary waste.

Data on each of these outcomes will be collected and recorded annually in the Queensland Waste Data System, as required by the Act.

Targets

A target to reduce waste to landfill by 2% per annum until 2030.

Actions for Bundaberg Regional Council

Action 1: Recycling better by the provision of cardboard recycling, comingled recycling and green waste recovery at all buildings and workplaces where practical

Action 2: Avoid waste in the first place through project planning and procurement

Action 3: Reducing waste in the workplace by design, planning and operational processes

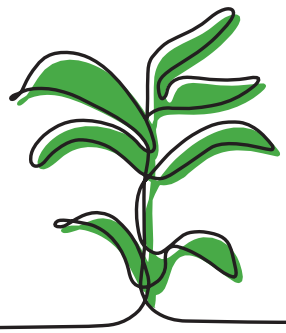
Action 4: Choosing to re-use or re-purpose items and materials will be a focus of operational activities and Council Intranet can play a key role in this process by matching waste producers internally with internal customer re-using items and materials

Action 5: Reducing printing via confirmation print services being adopted across Council's printers

Action 6: Making purchasing decisions that avoid waste and support recycled content

Action 7: Develop and implement an internal targeted waste education campaign to raise the profile of waste management and enact behaviour change

Action 8: Complete ten waste and recycling audits per annum of workplaces within Council



Strategic context

Global

United Nations Sustainable Development Goals

The United Nations 2030 Sustainable Development Goal 12 focuses on responsible consumption and production patterns.

Federal

Recycling and Waste Reduction Act 2020

Established a national framework to manage waste and recycling. It includes export bans on recyclable products and aims to stimulate economic activity and job creation while setting targets for waste reduction and increased recycling.

National Waste Policy 2018

Adopts five principles that support the vision of a circular economy where we maintain the value of resources for as long as possible. These include:

- avoid waste
- improve resource recovery
- increase use of recycled material and build demand and markets for recycled products
- better manage material flows to benefit human health, the environment, and the economy
- improved information to support innovation, guide investment and enable informed consumer decisions

National Waste Policy Action Plan 2019

Established targets and actions to implement the 2018 National Waste Policy to guide investment and national efforts to 2030 and beyond. Targets and actions focus on:

- export of waste plastic, paper, glass, and tyres
- waste generation and resource recovery rates from all waste streams
- use of recycled content by governments and industry
- problematic and unnecessary plastics
- organic waste sent to landfill
- data for industry and community decision making

National Food Waste Strategy 2017

Provides a framework to support collective action towards halving Australia's food waste by 2030

2025 National Packaging Targets

These targets apply to all packaging that is made, used, and sold in Australia and APCO is the organisation responsible for facilitating their delivery. Supported by Australian industry and government to deliver a new and sustainable approach to packaging, the 2025 targets are:

- 100% reusable, recyclable, or compostable packaging
- 70% of plastic packaging being recycled or composted
- 50% of average recycled content included in packaging (revised from 30% in 2020)
- the phase out of problematic and unnecessary single-use plastics packaging

Australian Recycling Label

An evidence-based on-pack labelling system developed by APCO and Planet Ark provides easy to understand recycling information to improve recycling rates and reduce yellow bin contamination

National Plastic Plan 2021

A plan to address plastic waste at the source through prevention, take responsibility for our plastics through better recycling and address challenges of plastics in our homes and in our oceans and waterways. The RecycleMate App encourages people to find out what they can and can't recycle more easily

Recycling Modernisation Fund (RMF)

The RMF will generate over $600 million of recycling investment in new infrastructure to sort, process and remanufacture materials such as mixed plastic, paper, tyres, and glass

State	**Waste Reduction and Recycling Act 2011** All local governments are required to adopt a Waste Reduction and Recycling Plan that sets out clear guidelines and targets to meet the objectives under the Waste Reduction and Recycling Act. Information required includes: • population growth forecast • residential and commercial development • waste types and quantities handled • services and facilities in place to manage the various types of waste according to the waste and resource management hierarchy • an action plan to chart a course towards meeting the State's waste and resource management strategy goals and targets
	Waste Management and Resource Recovery Strategy 2019 A strategic plan for a better way of managing waste in Queensland by harnessing the potential value of resources that have traditionally been discarded. Key targets are: • 25 per cent reduction in household waste by 2050 • 90 per cent of waste is recovered and does not go to landfill by 2050 • 75 per cent recycling rates across all waste types by 2050
	Waste Disposal Levy 2019 The State Government introduced a waste levy in July 2019 to disincentivise disposal of waste to landfill. To protect ratepayers from rising disposal costs, the State has been reimbursing local governments for the levy fees incurred on household waste, however, this payment is set to reduce significantly over the coming years.
	Plastic Pollution Reduction Plan 2019 Identifies and prioritises actions, to help reduce plastic waste and reduce the amount of plastic in and entering the environment with a focus on economic opportunities to create a plastic circular economy through investment in plastic reprocessing, remanufacturing, market development and new products as alternative to plastic.
	Single-Use Plastics Bans The State Government banned single-use plastic bags in July 2018 and passed laws in December 2020 to ban other single-use plastic products, including straws, from 1 September 2021. Other single use plastic items are continually being reviewed for inclusion in the ban.
	Recycling Modernisation Fund A joint initiative of the Queensland and Australian governments providing $40 million in funding support for industry infrastructure expansions or upgrades to address gaps in the State's waste reprocessing capacity.
	Organics Strategy 2022-2032 Provides the overarching framework and action for improved management of organic materials along the organics supply chain and consumption chain.
	Organics Action Plan 2022-2032 Provides a clear roadmap for how Queensland plans to avoid generating organic waste, reduce the impacts of organic waste on the environment and communities, transition to a circular economy and build economic and market opportunity for the organics recycling industry.
Local	**Bundaberg Regional Council Corporate Plan 2021-2026** Our vision to build Australia's best regional community, our values to be a Council that is customer focused, respectful and prides itself on teamwork, leadership, sustainability, innovation, safety, and well-being. We communicate in an open and respectful manner.
	Our Infrastructure Development 2.2. Sustainable Essential Services Strategies 2.2.3 provide safe and efficient waste services to protect our community and environment. Performance outcomes waste services meeting industry and legislation standards.

Source: Wide Bay-Burnett Regional – Regional Waste Management Plan; Local Government Association of Queensland; Prepared by SLR Consulting Australia Pty Ltd; 620.31107-R04-v1.0

Source: Bundaberg Regional Council, 2021-2026 Internal Corporate Plan, p.10, 2.2.3

Source: Bundaberg Regional Council, Corporate Plan 2021-2026, p.2

Summary

Currently,
each Bundaberg Regional household generates
725 kilograms
of waste that is landfilled annually via their **red lidded residual waste bin**

The Bundaberg Region's overall
recycling rate
from its household bins is only
15%
of the materials collected

We know that households
dispose of recyclables and both food and garden organics
in the household
red lidded residual waste bins
that end up in landfill and these materials make up approximately
69% of the 20,700 tonnes
collected per annum

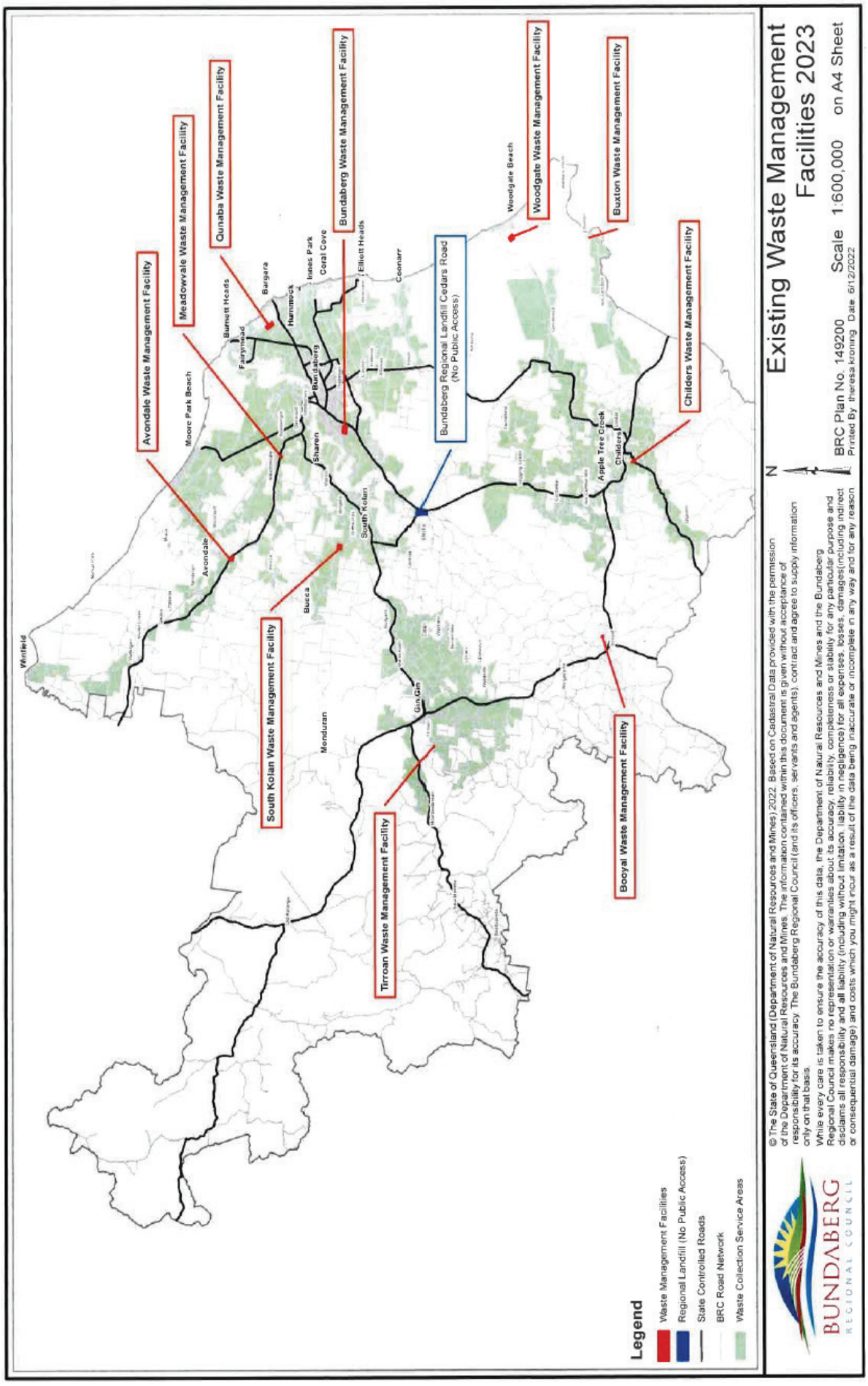
By simply recycling items
that can be placed in the
yellow lidded recycle bin
the community can increase its recycling yield at no cost
and this would equate to a
recycling rate of 22%
of the materials collected

The 17,300 tonnes of food and garden organics that are being landfilled from the residual waste bins are not sustainable and represent
58% of materials
collected in the **red lidded residual waste bin**

To move towards the state waste reduction and recycling targets this material must be recovered therefore it is proposed to commence a
weekly FOGO household bin collection service
to 26,400 households (63% of households) in July 2026.
This intervention is projected to
recover 40% of the materials that are currently being landfilled in the **red lidded residual waste stream**.

The plan and the **five themes** spoken about in this strategy support the community to work collaboratively to create a circular economy and **to build Australia's best regional community** by supporting the environment, our economy, our businesses and our community.

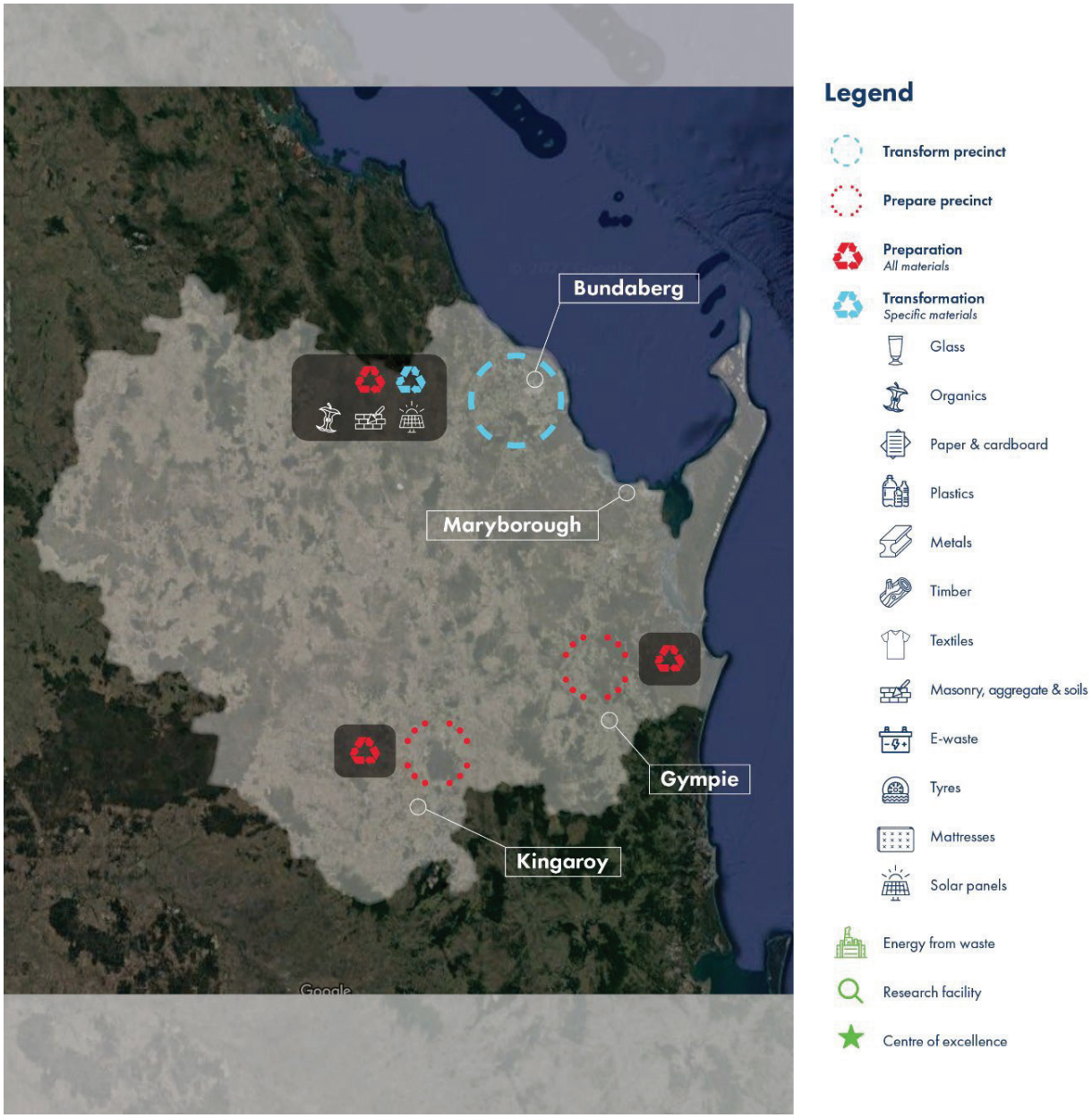
Appendix A

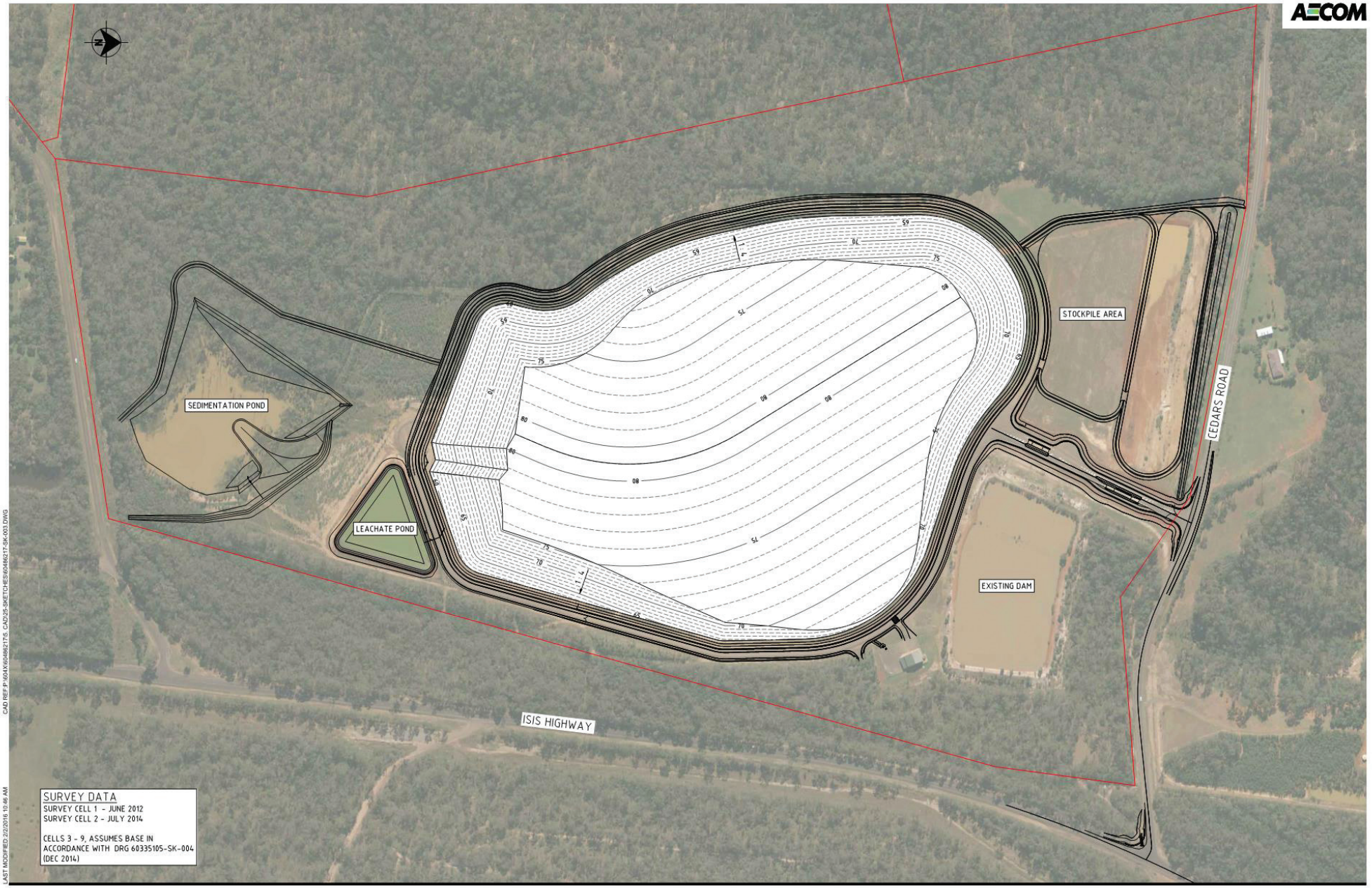

Avondale Waste Management Facility
Meadowvale Waste Management Facility
Qunaba Waste Management Facility
Bundaberg Waste Management Facility
Bundaberg Regional Landfill Cedars Road (No Public Access)
Woodgate Waste Management Facility
Buxton Waste Management Facility
Childers Waste Management Facility
South Kolan Waste Management Facility
Tirroan Waste Management Facility
Bocyal Waste Management Facility
Legend
Waste Management Facilities
Regional Landfill (No Public Access)
State Controlled Roads
BRC Road Network
Waste Collection Service Areas
N
Existing Waste Management Facilities 2023
BRC Plan No. 149200
Scale 1:600,000 on A4 Sheet
Printed By theresa kroning Date 5/12/2022
BUNDABERG
REGIONAL COUNCIL
© The State of Queensland (Department of Natural Resources and Mines) 2022. Based on Cadastral Data provided with the permission of the Department of Natural Resources and Mines. The information contained within this document is given without acceptance of responsibility for its accuracy. The Bundaberg Regional Council (and its officers, servants and agents), contract and agree to supply information only on that basis.
While every care is taken to ensure the accuracy of this data, the Department of Natural Resources and Mines and the Bundaberg Regional Council makes no representation or warranties about its accuracy, reliability, completeness or stability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages(including indirect or consequential damage) and costs which you might incur as a result of the data being inaccurate or incomplete in any way and for any reason

Appendix B

The Wide Bay Burnett (Wide Bay) SA4 region consists of six local government areas (LGA's) with major hubs consisting of Bundaberg, Gympie and Hervey Bay. Wide Bay has a population of 310,000 people forecast to increase to 360,000 by 2041 with the major centres set up to grow steadily. Key industries for Wide Bay include agriculture, forestry, and tourism.

There is potential to establish a recycling enterprise precinct in Bundaberg possibly using land in the State Development Area (SDA) near the Port. This could be used for processing organics, timber, building waste, glass, and textiles. This precinct would service materials from Wide Bay exclusively. All other waste streams, including metals, paper & cardboard and plastics should be transported to Brisbane and Gladstone for processing.



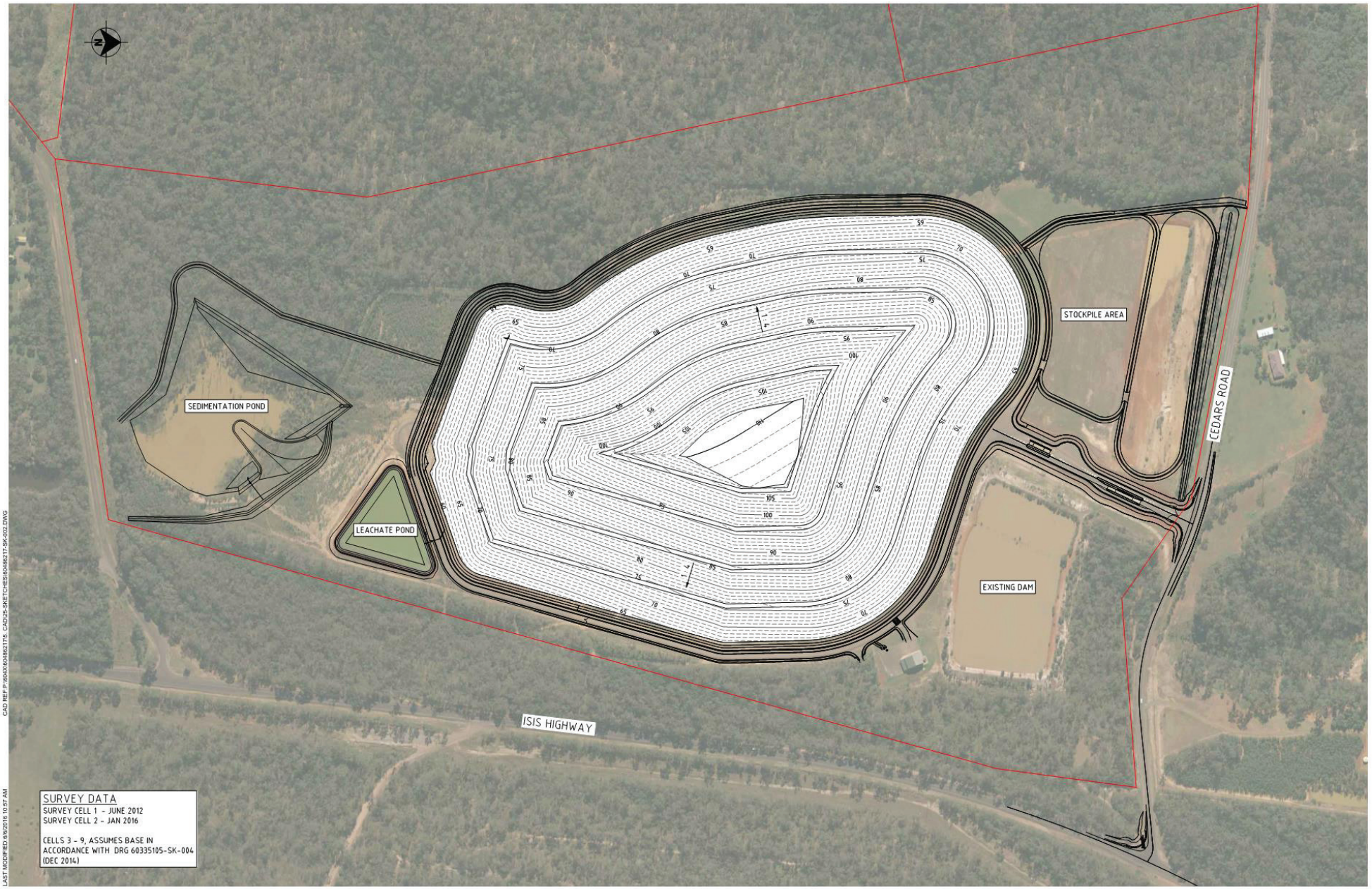


REV A
02.02.16

SCALE Z 1: 4000 (A3) 1: 2000 (A1)

DRAFT
NOT FOR CONSTRUCTION

BUNDABERG REGIONAL COUNCIL
CEDARS ROAD LANDFILL
CONCEPT UNDERSIDE OF CAP PROFILE - ORIGINAL OPTION RL 81 (OCTOBER 2013)
60486217-SK-003

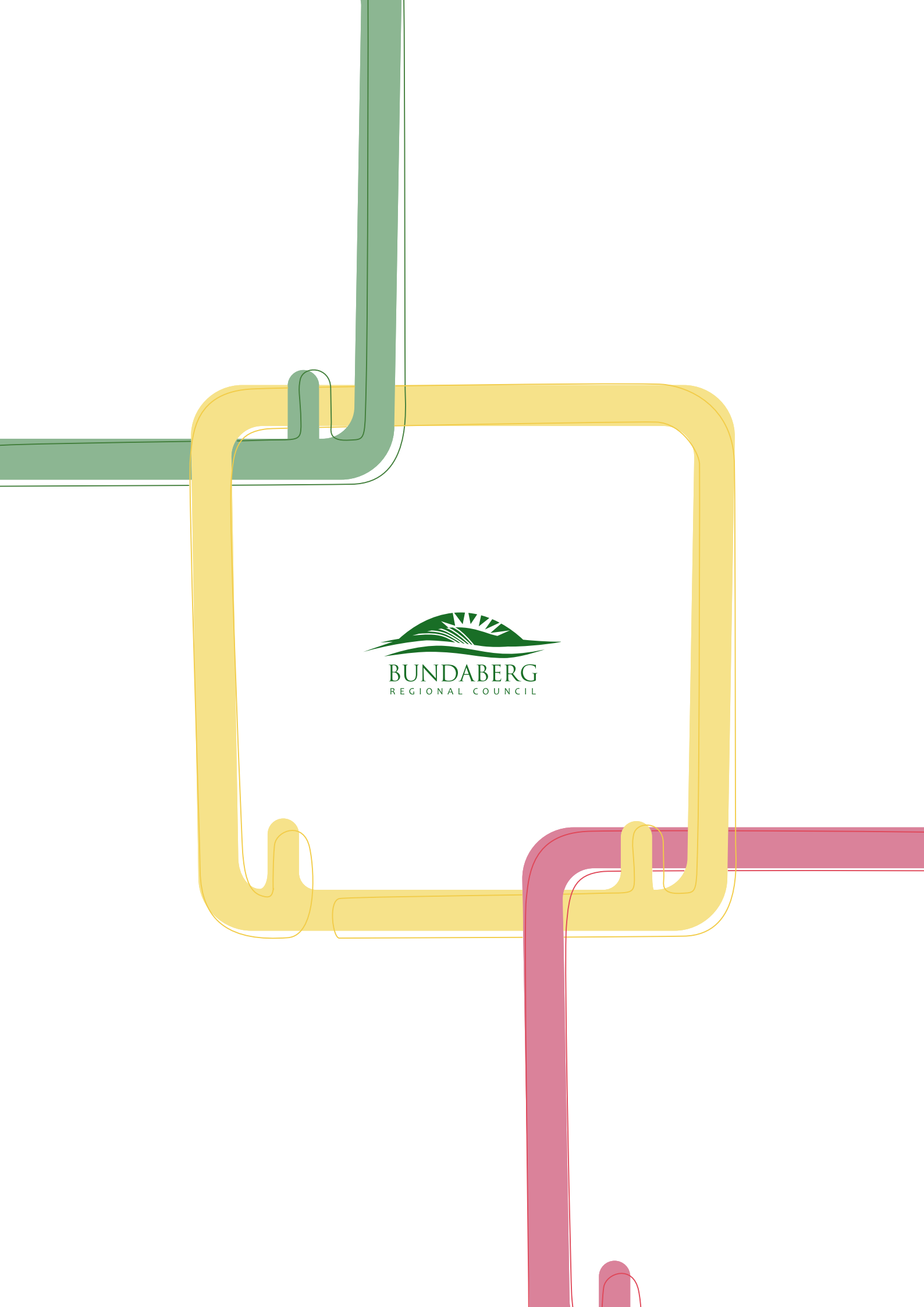


REV B
06.06.16

SCALE 2

NOT FOR CONSTRUCTION

BUNDABERG REGIONAL COUNCIL
CEDARS ROAD LANDFILL
CONCEPT UNDERSIDE OF CAP PROFILE - OPTION 2 MAX HEIGHT
60486217-SK-002


BUNDABERG
REGIONAL COUNCIL