NORTH BURNETT
REGIONAL COUNCIL

Waste Reduction & Recycling Plan 2021-2026

Adoption by Council

The North Burnett Regional Council Waste Reduction and Recycling Plan was adopted by Council at the General Meeting in Mundubbera on 28 July 2021.

Version: 2.1 Rev0

Copies of the Plan Name

Copies of the Waste Reduction and Recycling Plan are available free of charge electronically on council's website www.northburnett.qld.gov.au or can be viewed at any Customer Service Centre.

Contact Us

All written communication to be addressed to:

"The Chief Executive Officer"
North Burnett Regional Council
PO Box 390
GAYNDAH QLD 4625

Phone: 1300 696 272 (1300 MY NBRC)
Fax: 07 4161 1425
E-mail: admin@northburnett.qld.gov.au

Twitter: @NorthBurnettRC
Facebook: www.facebook.com/north.burnett.regional.council

ABN: 23 439 388 197

CONTENTS

INTRODUCTION

Waste management traditionally is a role of local government and has expanded from a public health function to encompass environmental and economically sustainable objectives demonstrated by responsible governance. The *Waste Reduction and Recycling Act 2011* requires local government to develop and implement a Waste Reduction and Recycling Plan (WRRP) and to review that plan every three years. This WRRP fulfils that obligation to consider:

- waste reduction and recycling targets;
- actions to improve waste reduction and recycling;
- details of current and proposed waste infrastructure;
- management and monitoring of local government performance; and
- continuous improvement.

North Burnett Regional Council first developed a Waste Management Strategic Plan in 2013 (Doc ID 354732) with a review undertaken in 2015 (Doc ID 729273). Many of the strategic goals of that plan have been realised including the identification and development of Mundubbera as a regional landfill that includes a weighbridge and new waste handling plant. Other landfills have transitioned to transfer stations. Recycling drop off centres at those sites for example e-waste and cardboard at selected facilities continue to be explored.

This Plan identifies strategic actions including waste targets, priority themes for action, expenditure and performance measures. These actions have been developed and identified throughout the document is response to key discussion points and community engagement.

REGULATORY FRAMEWORK

Waste management activities operate within a political and regulatory framework. Waste management policies are developed at all tiers of Government that influence legislation and local government funding including:

- *Waste Reduction and Recycling Act 2011;*
- *Environmental Protection Act 1994;*
- *Local Government Act 2019*;
- National Waste Policy;
- Queensland Waste Management and Resource Recovery Strategy;
- Wide Bay Burnett Regional Organisation of Councils Waste Strategy.

WASTE REDUCTION AND RECYCLING ACT 2011

The *Waste Reduction and Recycling Act 2011* contains a suite of measures to reduce waste generation and landfill disposal and encourage recycling. Amendments in 2019 enacted a new framework to modernise waste management and resource recovery practices in Queensland including a waste levy that aims to:

- reduce the amount of waste going to landfill;
- encourage waste avoidance;
- provide a source of funding to enable better resource recovery practices;
- provide certainty and security of feedstock for advanced technology;
- facilitate industry investment in resource recovery infrastructure.

Discussion 1: The North Burnett Regional Council is located within the waste levy zone. The Act includes a provision that all small landfills within the levy zone to have weighbridges by 2024. Council has recently installed waste transfer stations at half the capital and operational cost of a weighbridge. The transfer stations incorporate a 900mm safety rail in accordance with safety legislation and Australian Standards

Community feedback: The weighbridge designs are not user-friendly and do not accommodate for elderly or people with a disability.

Action 5.1: Council explore and options and pricing for the elderly and people with disabilities using waste facilities.

ENVIRONMENTAL PROTECTION ACT 1994

The objective of the *Environmental Protection Act 1994* is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains ecological processes (ecologically sustainable development). The *Environmental Protection Act 1994* and its subordinate legislation provide a range of tools including a licensing system for environmentally relevant activities, including waste management facilities.

Council obligations for landfills extend past their closure for a period of up to thirty years. Best practice dictates that costs associated with future landfill closure, monitoring and maintenance are included in current waste pricing.

Discussion 2: In recent times, there has been an increased attention by the Queensland Government in auditing landfills and ensuring licence conditions are achieved. This policy trend presents several challenges for regional and rural local governments that are required to achieve the same standard as larger Councils without the capacity nor economies of scale to deliver similar services.

Community feedback: Lobby State Government on the waste levy and markets for resource recovery.

Action 4.4: Council continue to audit waste facilities monthly and allocate sufficient budget for site management and rehabilitation.

Action 5.4: Council continue to work with the State Government and WBBROC partners on achievable resource recovery projects and waste reduction targets.

LOCAL GOVERNMENT ACT 2009

The purpose of *Local Government Act 2009* is to provide for the way in which a local government is constituted and the nature and extent of its responsibilities and powers and a system of local government in Queensland that is accountable, effective, efficient and sustainable. This *Local Government Act 2009* enables Council to charge rates, fees and charges for the services provided to its community.

Many local governments charge:

- Utility charges in rates for services including waste collection;
- A levy in rates for special purposes including environmental, waste or landfill to offset the legislative and operational costs; and
- Fees at the waste facility.

Often several pricing mechanisms are used concurrently to ensure a level of social equity together with a user-pay approach.

Discussion 3: Community perception exists that if they pay the landfill levy or rely on on-farm disposal, that they do not have to pay the landfill management levy or for waste delivered to a facility.

Community feedback: Strategies ranked in importance include education (67%), recycling drop off points (67%) plastic free events (47%), on-farm waste guidelines (33%) and home-based composting (20%). 67% of survey respondents were willing to pay for tyres and bulky wastes at their local waste facility however this reduced to 40% for domestic waste and 13% for green waste.

Action 2.4: That Council develop and implement a communication plan on waste pricing [Table 9 - 2.4].

Action 4.3: That Council develops an on-farm waste disposal guide[4.3].

Action 2.5: Council develops a guide for waste management facility use [Table 9 - 2.5].

NATIONAL WASTE POLICY 2018

The 2018 National Waste Policy provides a framework for collective action by businesses, governments, communities and individuals until 2030. The policy identifies five overarching principles underpinning waste management in a circular economy. These include:

1. Avoid waste;
2. Improve resource recovery;
3. Increase use of recycled material and build demand and markets for recycled products;
4. Better manage material flows to benefit human health, the environment and the economy;
5. Improve information to support innovation, guide investment and enable informed consumer decisions.

Discussion 4: The National Waste Policy 2018 identifies several strategies that may be implemented at a local level including knowledge sharing, education and behaviour change; sustainable procurement by government; plastic and packaging; reduce organic waste; and data and reporting.

Community feedback: Education and recycling drop off points were identified as important to 67% of respondents

Action 2.1: Council implement an education program to encourage changes in behaviour on waste.

Action 5.7: Council include recyclable content in procurement (e.g. recyclables in road construction).

Action 3.1. Council encourage plastic free events and food businesses.

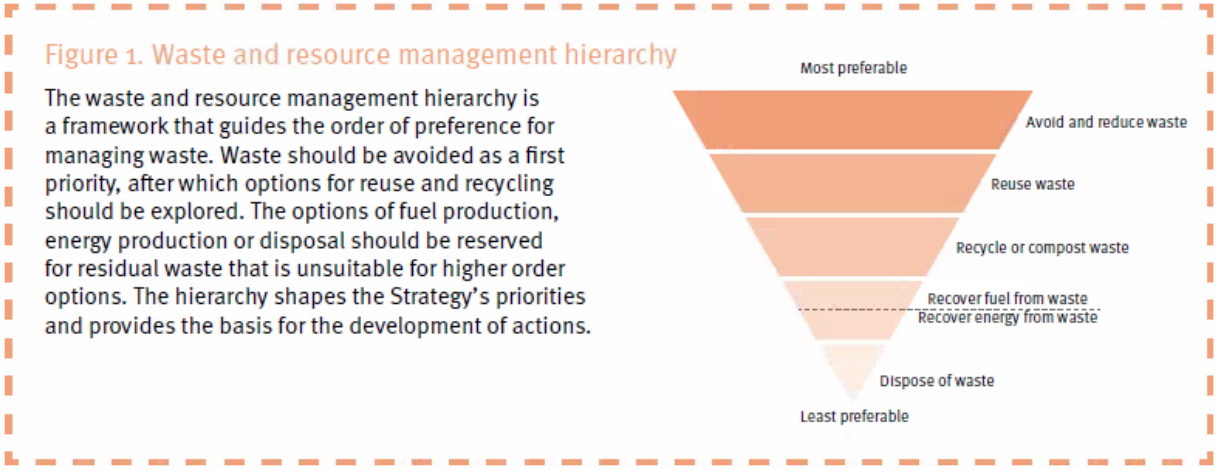
Action 3.3: Council encourage home based composting.

Action 1.3: Council continue to improve data collection and management of waste disposal and resource recovery.

QUEENSLAND WASTE MANAGEMENT AND RESOURCE RECOVERY STRATEGY

In 2019, the Queensland Government released the *Waste Management and Resource Recovery Strategy* providing a strategic framework for Queensland to become a zero-waste society, where waste is avoided, reused or recycled to the greatest possible extent. The strategy continues to build upon the waste and resource management hierarchy as a framework to guide the order of preference for managing waste, figure 1.

Figure 1: Waste and resource management hierarchy



Source: Queensland Government, 2019, Waste Management and Resource Recovery Strategy

Local government in many ways remains at the forefront of managing waste within the community. The Waste Management and Resource Recovery Strategy has several implications for local government, table 1.

Table 1: Strategic Priorities – Actions for local government

Strategic priority 1 – Reducing the impact of waste on the environment
▪ Support and contribute to targets and actions under *Litter and Illegal Dumping: A plan for Queensland.* ▪ Deliver litter and illegal dumping interventions within local communities and at targeted hotspots. ▪ Support delivery of waste education through existing networks. ▪ Improve or close redundant landfill facilities.
Strategic priority 2 – Transitioning to a circular economy for waste
▪ Optimise waste collection services. ▪ Improve community understanding about recycling and waste avoidance. ▪ Develop consistent messaging in delivery of services between councils.
Strategic Priority 3 – Building economic opportunity
▪ Collaborate with state government planning on provisions to optimise land use and transport planning. ▪ Take a regional approach to infrastructure planning and collaboration. ▪ Collaborate across councils to create economies of scale and meet multiple infrastructure needs. ▪ Invest in improved infrastructure and standards for council run facilities. ▪ Rationalise waste facilities.

Discussion 5: The Queensland *Waste Management and Resource Recover Strategy* is underpinned by the "circular economy" principle where waste is identified as a resource for use by commerce and industry.

Community feedback: Recycling options should be explored with more funding for waste education with a focus on school hubs.

Action 1.4, 5.6: Council embrace the circular economy principle and review its economic strategy to identify waste streams that be aligned to resources for local business.

Action 2.1: Develop and implement waste education program. Mundubbera State School will be chosen as a pilot hub project.

WBBROC WASTE STRATEGY

Wide Bay Burnett Regional Organisation of Councils (WBBROC) had also developed a Waste Management and Resource Recovery Strategy (2015-2020) (Doc ID 718169) to explore regional opportunities and collaboration in waste management. Strategy goals include:

1. Investigate Regional waste collection services.
2. Investigate opportunities of current landfills that meet the regions short- and long-term waste disposal needs.
3. Provide opportunities to reduce waste disposal to land fill.
4. Investigate opportunities for regional procurement of services / shared procurement.
5. Investigate regional landfills or alternate disposal options.
6. Investigate Landfill Rehabilitation Provisions.

Of the nominated strategic goals, success has been made in shared procurement such as landfill groundwater monitoring and specific studies. One such study explored regional landfill however the identified location would require subsidisation under an alliance model that progressed no further. Although the structure of WBBROC has recently changed, waste officers continue to network to identify regional opportunities.

CORPORATE PLAN

This WRRP aligns with Council's Corporate Plan 2021-2026 and vision for *"a prosperous future for generations built on a solid foundation of customer focused, efficient, and reliable service delivery".*

The Corporate Plan, *1: Essential Service Delivery* provides that:

1.1. Deliver services deemed essential by the Queensland Audit Office.

1.2 Deliver services legislatively required of Council.

WASTE PROFILE

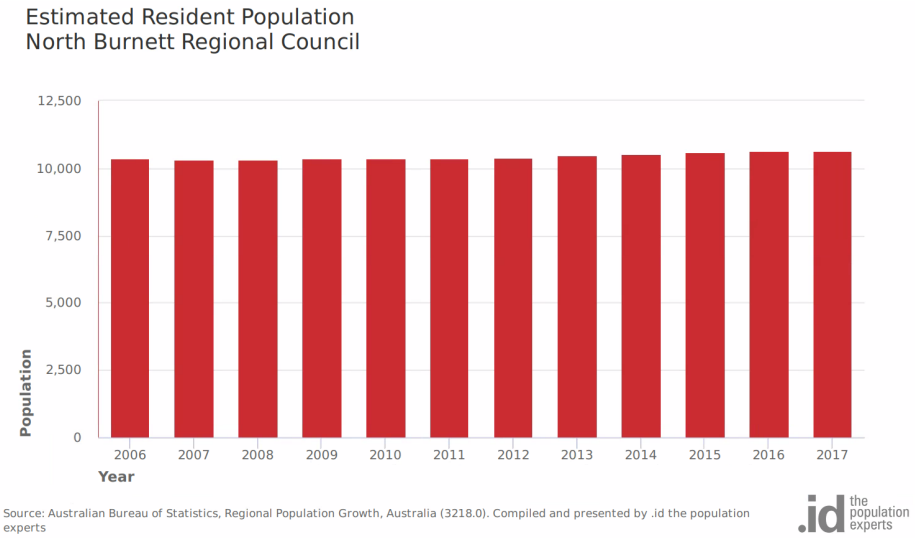
POPULATION

The population of North Burnett in the 2017 was just over 10,000 people and has remained steady over the past decade, Figure 2. Residents are dispersed across the local government area with many residing in towns. Table 2 summarises the population by division.

Table 2: Estimated 2017 Population by Division

Division	Population
1. Monto & District	1,731
2. Eidsvold & District	1,469
3. Mundubbera & District	2,152
4. Gayndah & District	1,992
5. Mount Perry & District	1,660
6. Biggenden & District	1,661

Figure 2: North Burnett Population



The North Burnett is characterised by an older population with the median age of forty-two which is higher than the regional and State average. Twenty-six percent (26%) of the population live in lone person households. Most of the community reside in detached housing as only three percent (3%) live in medium and high-density housing. Despite an aging population, there are only approximately 33 infirm household collection services. This may increase in coming years.

Discussion 6: Should older residents and single person households be afforded the option of having a smaller 140L bin? Should families who actively recycle be financially rewarded by having the option of a smaller bin?

Community feedback: Only 27% of respondents supported a smaller bin.

Action 2.6: Council continue to explore the introduction of an optional 140L bin service at a lower price than the 240L bin service to encourage resource recovery activities.

ECONOMY

The North Burnett area is predominantly rural, with townships at Gayndah, Biggenden, Eidsvold, Monto, Mount Perry and Mundubbera. Several small villages are located between settlements. Rural land is used largely for agriculture, particularly forestry, cattle grazing, citrus and crops. Mining is also an important industry with a gold mine near Mount Perry and a Siltstone quarry at Eidsvold.

Economic growth has been stable in line with population. Only commercial and regulated waste types have been relatively stable, figure 3. Commercial and industrial waste accounts for 31% of waste, figure 4. Household waste has continued to grow despite a stable population.

Figure 3 – Waste types (tonnes)

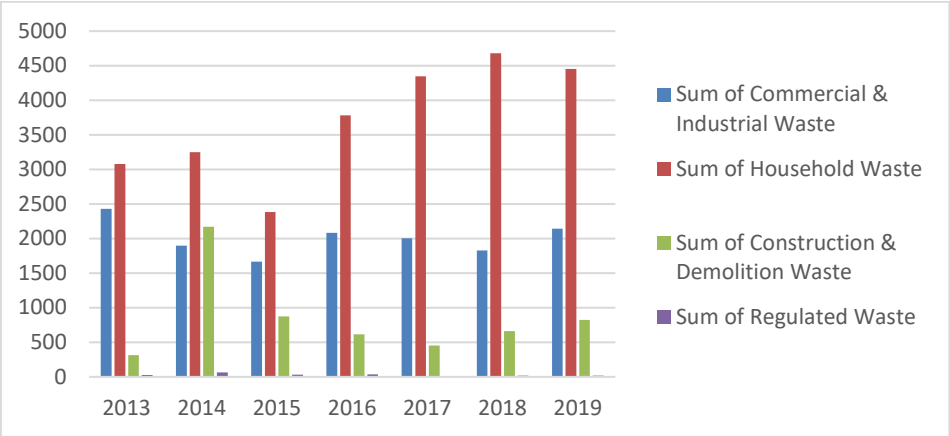
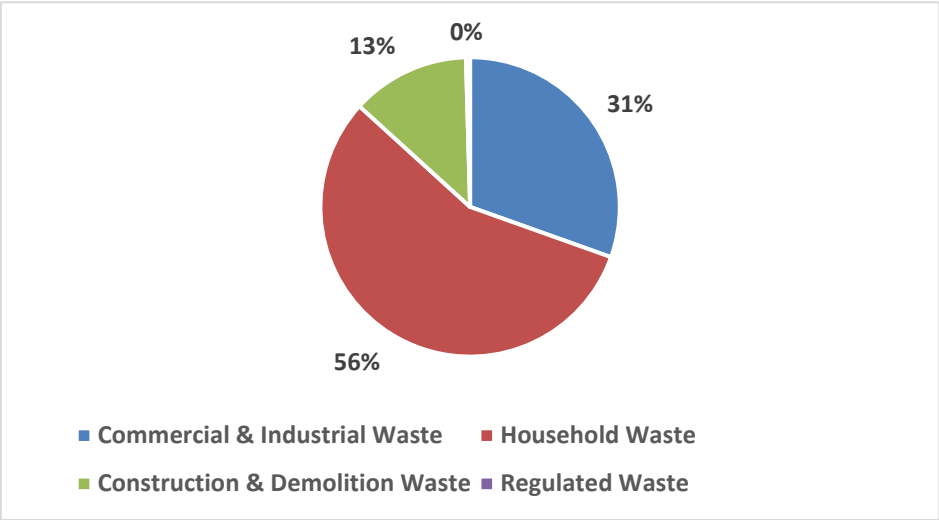


Figure 4 – Waste type (2013-2019 average)



Discussion 7: Despite stability in the population and economy, the volume of household waste has trended higher in recent years as highlighted in figure 3.

Community feedback: Education and recycling programs were ranked highly by respondents.

Action 1.1, 1.3: Council continue to improve data management and maintain information on recycling.

Action 2.1: Council develop a household education program on waste avoidance and reduction.

WASTE COLLECTION

There are 6,914 properties within the local government area. Of these, 4,237 are provided with a waste collection service with approximately 3202 domestic and 1035 commercial services each week. The cost of kerbside collection is more than $0.7M per annum.

Kerbside recycling has not been implemented in the North Burnett. Anecdotal evidence from neighbouring local governments is that kerbside recycling experiences high contamination rates. The cost of conducting a kerbside recycling program complimented by a sorting facility and subsequent transport to market would be estimated to be more than $1M per annum.

Discussion 8: Community sentiment suggests a desire for recycling; unfortunately, there is a cost that the community may not be willing to pay. A commonly held principle to reduce contamination and increase recycling is “separation at the source” meaning that waste avoidance and resource recovery should start in the home or business.

Community feedback: 73% of respondents supported an affordable system of supplying crates to enable separation at the source. 67% of respondents would use recycling drop off points.

Action 2.4: Council continue to explore community recycling opportunities that are cost neutral and which meet community expectations.

Action 4.5: Council explore markets or receivable points for recyclables.

Action 3.3, 3.4: Council develop tools to enable separation of recyclables and other resources at the point of source (e.g. household).

The current kerbside waste collection contract has been extended to June 2024. Opportunities for regional services will be explored with WBBROC to determine whether economies of scale can be realised.

STREET LITTER

There are 183 park and street bins collected each week, table 3. The cost for park and street litter collection is approximately $73,000 each year.

Table 3: Park and street litter collection

SUBURB	WEEKLY
ABERCORN	1
BAN BAN SPRINGS	12
BIGGENDEN	15
BINJOUR	7
COOMINGLAH	4
EIDSVOLD	31
GAYNDAH	30
MONTO	41
MOUNT PERRY	20
MULGILDIE	3
MUNDUBBERA	19
	183

Discussion 9: Although the Department of Transport and Main Roads reimburses the cost for bin services at rest areas, the cost of the street and park services equates to 0.4% of general rates and levies. The number and location of bins, table 3, is disproportionate to the scale of the community. Several park bins are often used by travellers (grey nomads) during winter. Unfortunately, street bins are often used by residents to dispose excess domestic waste. Given the high costs for street litter bin collection and increased legislative penalties for littering, a review of street litter and public place recycling could be conducted.

Action 2.2: Council in conjunction with Chamber of Commerce and community groups, review street litter options including public place recycling.

RESOURCE RECOVERY

In lieu of kerbside recycling, Council had opted for recycling drop off points at waste management facilities. Markets for resources fluctuate considerably depending upon international policies (e.g. China National Sword prohibiting imports of plastics) and State initiatives (e.g. Container Refund Scheme).

Recycling in rural and regional areas often run at a financial loss given low commodity prices, transport distance and labour cost. For example, in 2017, Council at one landfill received $4K revenue for cardboard however the cost to sort, bale and transport the resource was more than $12K. In addition, baling activities represent a level of workplace safety and opportunity cost associated with effective site supervision.

Discussion 10: Resource recovery is a developing industry. Opportunities may arise for local initiatives but may be constrained by bureaucracy and cost. Council may be required to assist new business ventures in resource recovery.

Action 5.5: That Council develop an Entrepreneurial Incubator Program to enable the establishment of new resource recovery business. Such a program may include waiver of town planning fees and rating concessions.

Resource recovery drop-off facilities currently in the North Burnett are listed in Table 4.

Table 4: Resource Recovery Facilities

	Biggenden	Eidsvold	Gayndah	Monto	Mount Perry	Mundubbera
e-waste	✓	✓	✓	✓	✓	✓
Car batteries	✓	x	✓	✓	✓	✓
Engine oil	✓	x	✓	✓	✓	✓
Cardboard	✓	✓	✓	×	×	✓
Scrap steel	✓	✓	✓	✓	✓	✓

Tyres	✓	✓	✓	✓	✓	✓
Gas cylinders	✓	✓	✓	✓	✓	✓
Green waste Mulch	✓	✓	✓	✓	×	✓
DrumMuster	✓	x	✓	✓	✓	×
Glass	×	×	×	×	×	x
Community containers for change	✓	✓	✓	✓	✓	✓

Discussion 11: Effective tools are necessary to enable waste avoidance and segregation of recyclables at the point of source; i.e. the household.

Community feedback: 73% of respondents supported an affordable system of supplying crates to enable separation at the source. 67% of respondents would use recycling drop off points.

Action 3.3, 3.4: Council explore community interest and pricing for the supply of crates and/or composting systems to enable household to avoid waste or segregate recyclables for delivery to a resource recovery centre.

WASTE FACILITIES

Council has six (6) active waste facilities within the region, table 5. There are also number of historic landfills that Council has identified which are programmed for formal closure. Council has secured Queensland Government funding (60%) towards the construction of transfer stations at four (4) sites.

Table 5: Waste Facilities

Waste Facility	Location	Hours Open/Week	Current Use	Future strategy	Cost	Timeline
Biggenden	Old Coach Rd	12	Transfer Station	Capping	$1,232,000	2022/23-24
Eidsvold	Hollywell Rd	12	Transfer station	Boundary Alignment Capping	$150,000 $204,000	2025/26 2035/36
Gayndah	Rifle Range Rd	12	Transfer Station	Capping	$1,416,000	2027/28-29
Monto	34 Langs Rd	12	Transfer Station	Capping	$1,032,000	2030/31-32
Mount Perry	Gayndah Mt Perry Rd	17	Transfer Station	Capping	$368,000	2021/22
Mundubbera	Middle Boyne Rd	32	Landfill	Regional Landfill Transfer station Capping Closure & Capping	$6,500,000 $100,000 $739,200 $2,144,000	2021/22-34 2021/22 2025/26 2071/72

Council's future capital commitment to landfill capping and restoration is approximately $8M. Landfill licence requirements for leachate collection and gas management is expected to be $6.5M over the next decade. Post landfill closure operational costs of $150,000 annually is estimated to for monitoring and remediation works.

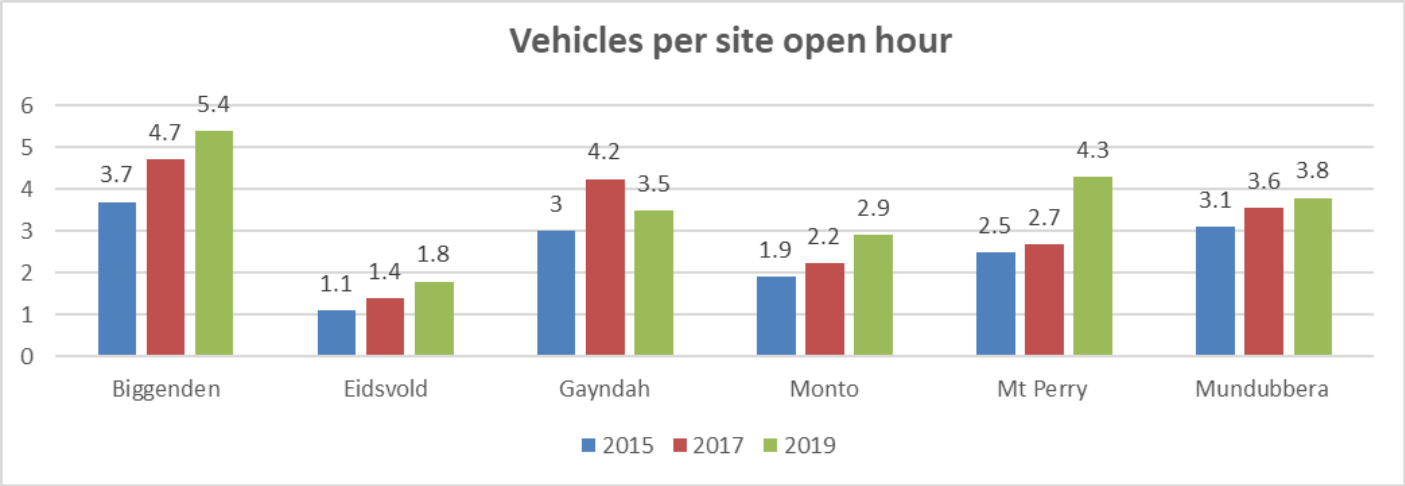
Transport services for bulk waste services from transfer stations and delivered to Mundubbera will cost approximately $240K per annum. This cost is offset by an expected reduction of $100K in waste levy as all waste to landfill will be weighed rather than deemed.

Discussion 12: To comply with maximum driver hours, all weekly household waste collected by Council Contractor will have to be delivered to Mundubbera. This means that any dumping at Monto will have to be discontinued.

Action 5.1: Monto and immediate surrounds can be serviced in a single day if Wuruma Dam was excluded from the run. This would mean that Sunwater or Council would have to self-haul waste to a waste facility.

Weekly operating hours for waste facilities are nominated in Table 5. A level of community expectation exists that waste facilities will be open when it is most convenient. Regardless of population and range of opening hours, the number of vehicle movement are approximately four (4) per hour, figure 5. The annual operational cost to operate six (6) waste facilities across the local government area is $811,000 (2018/19 financial year). This amount does not include waste collection or regional wide expenses including Queensland Waste Levy, environmental licensing and monitoring. Labour costs at Council managed facilities account for 41% to 75% of costs. Council will continue to monitor and review all site data and manage costs in line with community expectations. Unsupervised sites as used by other local governments will be explored.

Figure 5: Waste facility averaged vehicle movements per open hour



Discussion 13: Given the low number of vehicle movements per hour and high labour costs, should opening hours be reduced or can technology enable remote access (e.g. pin access or licence plate recognition). Remote access may be particularly useful for business operators.

Community feedback: Reduced opening hours were generally accepted by 45% of respondents with hours needing to cater for both weekday and weekend access. Business needs are also to be considered.

Action 2.3: Council monitor and review waste facility data including cost and investigate unsupervised waste facility models.

WBBROC has explored opportunities for one (1) or more regional landfills to service the Wide Bay Burnett Regional. Based on population and quantity of waste generated, a centralised facility would be located approximately 194km from the North Burnett. The cost of waste transport would be prohibitive unless Council was financially subsided. Attention has now moved to potential for energy from waste (EfW) and to determine the feasibility of appropriate technologies and cost for the region.

LOCAL GOVERNMENT OPERATIONS

In addition to managing waste, Council is also a generator through its own operations, Table 6.

Table 6: Waste streams from local government operations

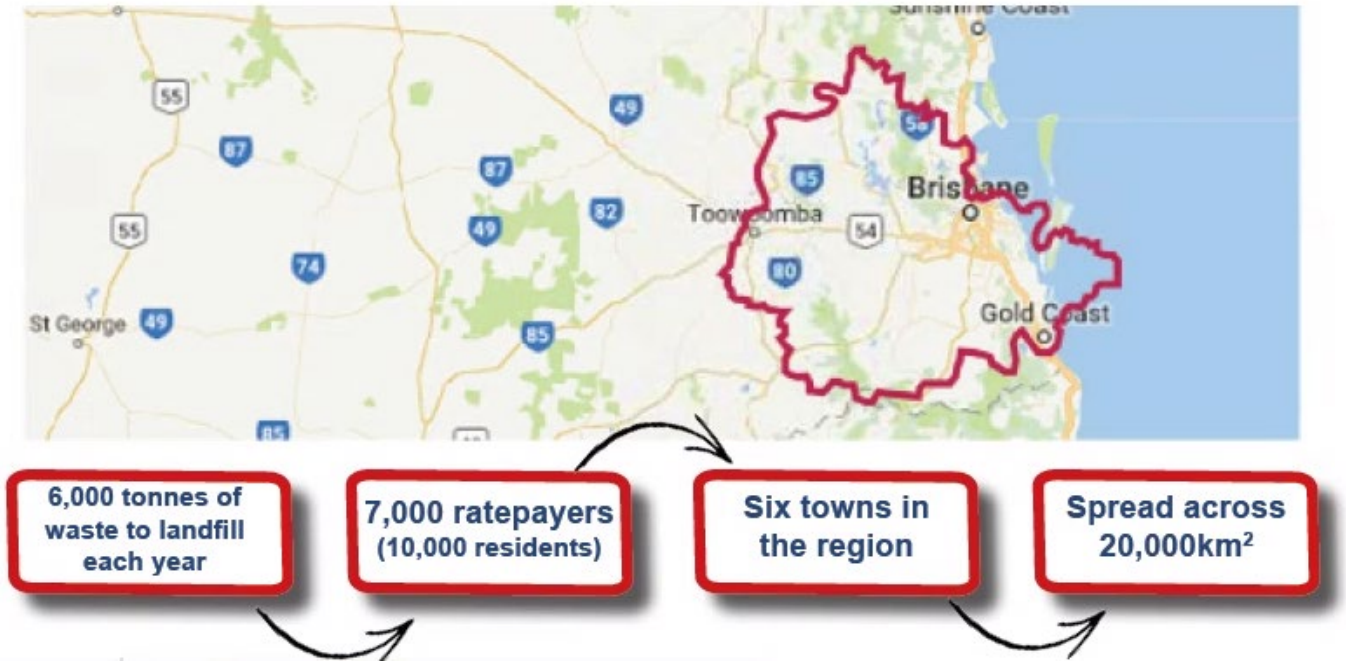
Waste stream	Council function	Current practice	Opportunities
Street litter	Park and gardens	All waste to landfill	Public place recycling
Greenwaste	Parks and gardens	To waste facility for mulching	On-site mulching and re-use in parks
Bio solids	Wastewater	Stockpiling	EfW (if available)
Concrete	Civil works	Stockpile and landfill cell wall construction	Concrete crushing and reuse
Engine Oil	Fleet	Recycled	
e-waste	ICT / Facilities	Ad-hoc	e-waste recycling
Cardboard	All	Landfill	Cardboard recycling
Other Commercial Wastes	All	Landfill	Waste stream analysis

COST

THE CHALLENGE

The population of the North Burnett is decentralised across a large geographic area the size of South East Queensland, figure 6. Landfilling approximately 6,000 tonnes of waste per annum, the waste footprint for North Burnett is less than 1% of that for the entire State. Council does not have the economies of scale for a cost-efficient waste management system in comparison to highly populated or centralised local governments.

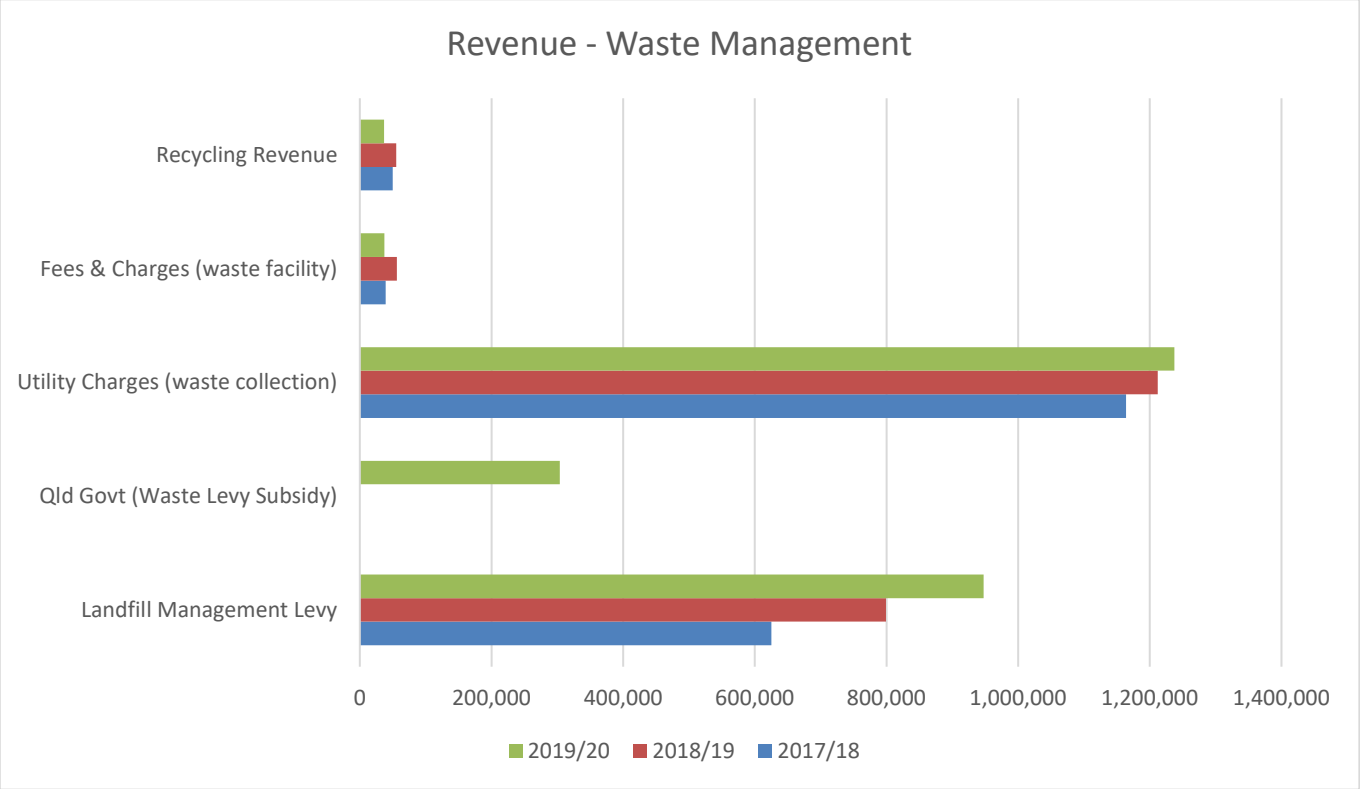
Figure 6: The waste management challenge for North Burnett



REVENUE

Revenue for waste management is realised from a range of tools including rates, levies, fees and charges, figure 7. Following the introduction of the Queensland Waste Levy in 2019, Council received a subsidy from the State for a period of three (3) years after which time it is not guaranteed. The subsidy only covers household waste and does not apply to commercial and industrial waste resulting in a revenue gap of approximately $150,000.

Figure 7: Revenue source for waste management operations



Discussion 14: Council enables free disposal of household waste up to 1m^3. It is often difficult for staff to distinguish volume or between domestic and commercial waste streams. Should free waste continue for both domestic and commercial users up to a sedan, utility and 6x4 trailer? It should be noted however that free waste provides no incentive to separate recyclables for diversion to resource recovery.

Community feedback: 67% of respondents were willing to pay for tyres and bulky wastes at their local waste facility however this reduced to 40% for domestic waste and 13% for green waste

Action 2.7: That Council maintain a free waste service for residents entering with a sedan or green waste; after which people would have to pay. Costs would apply for larger vehicles, tyres, bulky items, construction and demolition waste.

Action 3.1, 3.2, 3.3: That Council explore incentives for households and business to segregate recyclables.

EXPENSE

Expenses for waste management operations are categorised into region wide expenses (e.g. licensing, monitoring, etc.), waste management facilities (landfills and transfer stations) and waste collection, figure 8. The Queensland Government Waste Levy will continue to increase by $5/tonne each year and will create a funding gap. Increased auditing and compliance by the State will also influence expenditure. A ten-year financial model, figure 9, suggests an average annual deficit of approximately $227,000 based on current and predicted pricing.

Figure 8: Waste management expense

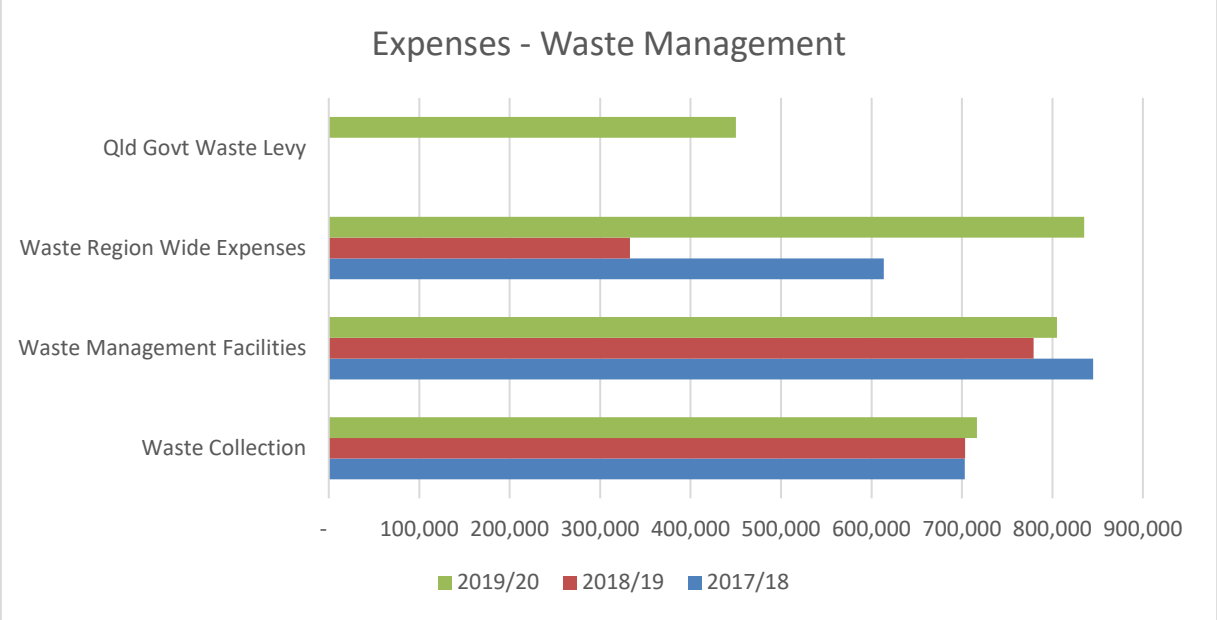


Figure 9: Ten-year financial projection for waste

Discussion 15: The Queensland Waste Levy will in the future have a financial impact upon Council. The objective of the levy is to change community perceptions and behaviour on waste. Although waste avoidance and recycling strategies can minimise the amount of waste directed to landfill, there is still going to be a significant financial impact upon Council. Council can ameliorate those costs through gate fees or increase to its landfill management levy. Households can also help by reducing the amount of waste that they generate.

Action 2.4: That Council develop a community engagement strategy on waste pricing.

Action 5.4: That Council continue to explore grants and funding initiatives through all tiers of Government.

RISK

Uncertainty surrounds any forward planning, and which will have financial implications for Council. Accordingly, it is appropriate to identify risks and appropriate strategies, see table 7.

Table 7: Waste Planning Risk Assessment

Description	Likelihood	Consequence	Risk Level	Risk Strategy	Residual Risk
Funding gap (waste levy) Action 2.1, 2.5, 3.1, 3.2.,3.3, 3.5, 5.1	Almost certain	Major	High	1. Implement waste hierarchy initiatives including education to divert waste from landfill. 2. Direct waste to Mundubbera weighbridge to avoid deemed weight methodology (i.e. transfer stations) 3. Lobby State Government on waste levy impacts to rural and regional Councils	Moderate
Funding gap (general) Action 1.1, 1.2, 1.3, 5.2, 5.3, 5.4	Possible	Moderate	Moderate	1. Period reporting and data analysis 2. Monitor funding opportunities (State / Federal) 3. Partner in WBBROC initiatives 4. Develop asset management plan. 5. Internal charging of waste services.	Moderate
Funding gap (change in interest rates) Action- 5.3	Possible	Moderate	Moderate	1. Periodic financial review and long-term financial planning	Moderate
Project Management and Waste Operations Supervision Action 4.1, 4.2	Almost certain	Major	High	1. Human resource strategy. 2. Project Management Framework	Moderate
Waste staff relief and training Action 4.2	Almost certain	Moderate	High	1. Coordinated work with parks and gardens or contract. 2. Staff training	Moderate
Inability to procure contactors and services Action 5.3, 5.4	Unlikely	Moderate	Moderate	1. Procurement planning	Low
Inability to implement capital projects Action 5.1	Possible	Moderate	Moderate	1. Contract project management 2. Project management	Low
Government intervention (enforcement) Action- 1.2, 4.2, 4.4	Possible	Major	Moderate	1. Monthly site audits 2. Training in waste data system 3. Professional development of staff	Moderate
Asset Management Planning Action 5.2	Unlikely	Moderate	Moderate	1. Asset capture 2. Periodic surveys	Low
Environmental nuisance / harm including breach of licence Action 4.4	Possible	Moderate	Moderate	1. Monthly site audits	Moderate
Increased waste charges Action 2.4, 4.5, 5.2, 5.3	Almost certain	Moderate	High	1. Long term financial planning 2. Asset management planning 3. Community engagement strategy 4. Develop resource recovery strategies	Moderate
Landfill gas management Action 2.7, 3.2	Possible	Major	Moderate	1. Encourage organics and green waste separation	Moderate

STRATEGIC ACTIONS

WASTE REDUCTION AND RECYCLING TARGETS

Given the complexity of resource recovery markets and changes to waste facility infrastructure and operations, this WRRP simply endeavours to achieve a reduction of 2% in the annual tonnage of waste disposed by landfill, Table 8. Households are also challenged to reduce their waste footprint by 2% annually.

Table 8: Waste Targets

	Waste Stream	Measure	2019 Baseline	2026 Target
Council	Municipal Solid Waste	Reduction in total tonnage landfilled	6,589 tonnes	5,000 tonnes
Household (collected services)	Municipal Solid Waste	Reduction in total tonnage collected / number of services	*Unknown as weighbridge installed from July 2019*	2% reduction annually

It is imperative that Council, in partnership with its community, work towards a circular economy and reduce the quantity of waste directed to landfill, figure 10. In many ways, environmental outcomes will result in economic benefits to ratepayers through a reduction in the waste levy and/or development of new industries.

Figure 10: Household actions will benefit ratepayers collectively

PRIORITY THEMES FOR ACTION

To address waste reduction targets and to achieve the objectives of this Plan, Council has identified five priority themes for action, Table 9. A series of objectives have been developed to address these five priority themes for action.

Table 9: Priority themes and actions

1. Data Management	2. Community Engagement	3. Waste Hierarchy	4. Environmental Protection	5. Responsible Governance
1.1 Continue to improve data management (iWeigh) and reporting 1.2 Professional staff development in waste data 1.3 Maintain resource recovery data. 1.4 Develop waste stream data and identify resource needs for local business.	2.1 Develop and implement waste education program 2.2 Engage business and community on street litter and public place recycling 2.3 Council monitor and review waste facility data including cost and investigate unsupervised waste facility models 2.4 Engage community on waste pricing 2.5 Develop a Waste Management Facility Users Guide 2.6 Council continue to explore the introduction of an optional 140L bin service at a lower price than the 240L bin service to encourage resource recovery activities 2.7 That Council maintain a free waste service for residents entering with a sedan or green waste; after which people would have to pay. Costs would still apply for bulky items, construction and demolition waste	3.1 Develop a food business incentive package 3.2 Develop a subsidy scheme for household composting 3.3 Facilitate community drop off points for recyclables at waste facilities 3.4 Enable households to segregate recyclables for transport to drop-off points. 3.5 Continue to expand Mundubbera Landfill as a regional facility	4.1 Champion waste plans in Council capital projects 4.2 Professional development and training of waste staff 4.3 Develop an On-Farm Waste Management Guide 4.4 Undertake periodic audits of waste facilities 4.5 Monitor resource recovery industries and identify market opportunities for recyclables	5.1 Explore and price alternative options for people with disabilities using waste facilities 5.2 Develop Waste Asset Management Plan 5.3 Develop and maintain long term financial plan for waste management 5.4 Work with Government and partner WBBROC in joint waste initiatives and funding opportunities 5.5 Council develop an Entrepreneurial Incubator Program for new resource recovery ventures 5.6 Review economic development strategies to align with circular economy principles. 5.7 Council include recyclable content in procurement (e.g. recyclables in road construction)

ACTION PLAN

Table 10: Data management

Strategy	Action	Timeline	Cost
1.1	Continue to improve data management (iWeigh) and reporting	Continuous	-
1.2	Professional staff development in waste data	2021/22 2023/24	$1,000 $1,000
1.3	Maintain resource recovery data	Continuous	-
1.4	Develop waste stream data and identify resource needs for local business.	Continuous	-

Table 11: Community engagement

Strategy	Action	Timeline	Cost
2.1	Develop and implement waste education program	2021/22 2023/24	$9,000 $10,000
2.2	Engage business and community on street litter and public place recycling	2022/23	$3,000
2.3	Council monitor and review waste facility data including cost and investigate unsupervised waste facility models	2021/22	$5,000
2.4	Engage community on waste pricing	2022/23	$3,000
2.5	Develop a Waste Management Facility Users Guide	2021/22	$3,500
2.6	Council continue to explore the introduction of an optional 140L bin service at a lower price than the 240L bin service to encourage resource recovery activities	2024/25	$3,000
2.7	That Council maintain a free waste service for residents entering with a sedan or green waste; after which people would have to pay. Costs would still apply for bulky items, construction and demolition waste	2021/22	-

Table 12: Waste hierarchy

Strategy	Action	Timeline	Cost
3.1	Develop a food business incentive package	2021/22 2023/24 2025/26	$5,000 $5,000 $5,000
3.2	Develop a subsidy scheme for household composting	2022/23 2023/24	$100,000 $100,000
3.3	Facilitate community drop off points for recyclables at waste facilities	2021/22 2022/23 2023/24	$5,000 $5,000 $5,000
3.4	Enable households to segregate recyclables for transport to drop-off points	2021/22 2022/23 2023/24	$30,000 $30,000 $30,000
3.5	Continue to expand Mundubbera Landfill as a regional facility	2021/22-34	$6.5M

Table 13: Environmental protection

Strategy	Action	Timeline	Cost
4.1	Champion waste plans in Council capital projects	continuous	-
4.2	Professional development and training of waste staff	continuous	$3,500
4.3	Develop an On-Farm Waste Management Guide	2022/23	$3,000
4.4	Undertake periodic audits of waste facilities	continuous	-
4.5	Monitor resource recovery industries and identify market opportunities for recyclables	continuous	-

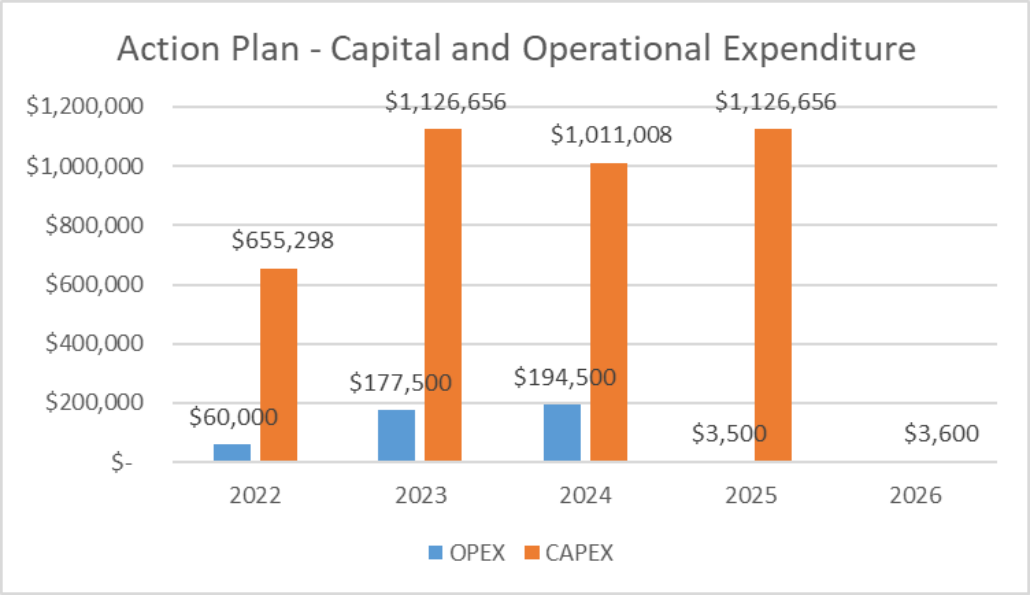
Table 14: Responsible governance

Strategy	Action	Timeline	Cost
5.1	Explore and price alternative options for people with disabilities using waste facilities	2021/22	$60,000
5.2	Develop Waste Asset Management Plan	2022/23	$10,000
5.3	Develop and maintain long term financial plan for waste management	continuous	-
5.4	Council continue to work with the State Government and WBBROC partners on achievable resource recovery projects and waste reduction targets	continuous	-
5.5	Council develop an Entrepreneurial Incubator Program for new resource recovery ventures	2023/24	$50,000
5.6	Review economic development strategies to align with circular economy principles	2022/23	$5,000
5.7	Council include recyclable content in procurement (e.g. recyclables in road construction)	2024/25	-

ACTION PLAN EXPENDITURE

Implementing this Plan is expected to incur a capital expenditure of $3.9M and an operational cost of $435,000 over five years, figure 10.

Figure 10: Waste Reduction and Recycling Plan capital and operational costs.



PERFORMANCE MEASURES

Targets to measure the performance of the WRRP are nominated in Table 15.

Table 15: Performance targets

Theme	Target	Target Measure
Data Management	Data adjustment through the Queensland Waste Data System	≤ 10 annually
Community Engagement	Develop Communication Plans to support this WRRP	Annually
	Waste Management Facility User Guide	30/06/22
Waste Hierarchy	Reduction in annual tonnage to landfill	2% annually
	Reduction in household collection tonnage	2% annually
Environmental Protection	Council major projects have a waste management plan	100% annually
	Waste facility site inspections	100% monthly
	On-farm waste management guide developed	30/06/22
Responsible Governance	Mundubbera transfer stations project completed	30/09/21
	Waste Asset Management Plan adopted by Council	30/06/23
	Waste long term financial plan developed and maintained	Annually
	Entrepreneurial Incubator Program for new resource recovery	30/06/24
	Integrate circular economy into economic development plans	30/06/25
	Build a road with 10% recycled content	30/06/26

REVIEW

This WRRP will be reported annually and formally reviewed every three years. Formal review will be required by 30 June 2024.