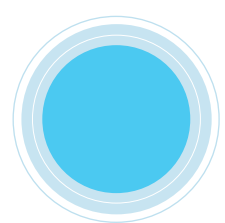
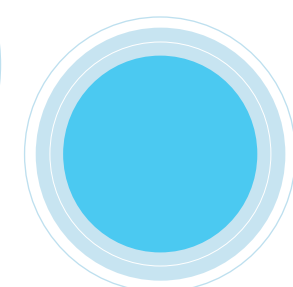
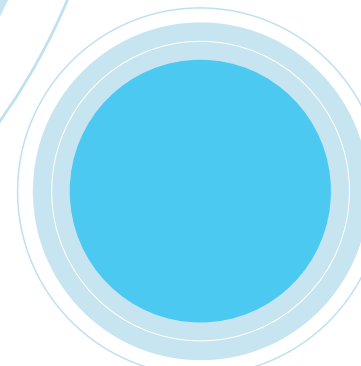




# WASTE & RESOURCE RECOVERY STRATEGY 2020-25

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DELIVERING BETTER  
WASTE MANAGEMENT  
AND RECYCLING



Adopted by Council 17 June 2020



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Adopted by Council 17 June 2020

Modified by Council Resolution 18 November 2020

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# Introduction

## 1.1 VISION

The Cessnock Waste and Resource Recovery Strategy aims to provide a sustainable cost effective waste service to the Cessnock community, while prioritising waste minimisation and complying with environmental, safety and legislative obligations.

## 1.2 OBJECTIVE

The Waste and Resource Recovery Strategy 2020-2025 provides a clear direction for the management of waste during the next five year period and a pathway for the future.

The objectives of Strategy are to:

- increase waste diversion from landfill through greater resource recovery
- change community waste generation and disposal behaviours by encouraging waste avoidance and a circular economy.
- reduce litter and illegal dumping in our bushland areas
- improve services to manage problem wastes
- deliver efficient waste services to the community.

## 1.3 TARGETS

Council will work towards meeting, current and future, NSW and regional waste and resource recovery targets for municipal waste.

# Background

## 2.1 STRATEGIC DRIVERS

The development of this local strategy has been influenced and guided by a number of high-level strategies, plans and legislation (regional, state and federal).

### 2.1.1 National

The *2018 National Waste Policy – Less Waste More Resources* provides a national framework for waste and resource recovery in Australia. It incorporates the waste hierarchy, and a focus on high order uses, while building on the idea of continually reusing, recycling and reprocessing materials.

The Australian Government promotes innovation, develops standards for products and materials, addresses national market failures and provides national data and reporting.

A waste export ban is due to commence on 1 July 2020 that may significantly change how recycling is provided to the community. The phased bans proposed are:

- all waste glass by July 2020
- mixed waste plastics by July 2021
- all whole tyres including baled tyres by December 2021
- remaining waste products, including mixed paper and cardboard, by no later than 30 June 2022.

### 2.1.2 State

The regulation and management of waste and resource recovery in Australia is primarily the responsibility of state and territory governments. Reducing waste generation and keeping materials circulating within the economy are priorities for NSW.

The *2014-2021 Waste Avoidance and Resource Recovery (WARR) Strategy* targets are:

- avoiding and reducing the amount of waste generated per person in NSW
- increasing recycling rates to
  - 70% for municipal solid waste
  - 70% for commercial and industrial waste
  - 80% for construction and demolition waste
- increasing waste diverted from landfill to 75%
- managing problem wastes better, establishing 86 drop-off facilities and services across NSW
- reducing litter, with 40% fewer items (compared to 2012) by 2017
- combatting illegal dumping, with 30% fewer incidents (compared to 2011) by 2017.

The NSW government is currently developing a 20 year waste strategy that will focus on sustainability, reliability and affordability. The policies that come from this Strategy have the potential to impact Council's proposed programs through changes to state priorities and funding.



90% of the community rates waste management as a priority for Council

### 2.1.3 Regional

Regional bodies may be formed by local governments to address waste management issues of regional significance. The ten councils of the Hunter/Central Coast waste region have developed the Hunter / Central Coast Waste Avoidance and Resource Recovery Strategy 2017-2021 to guide waste management in the region. Based on the principle that all waste materials must be treated as valuable and finite resources, the region will utilise a 'whole of life cycle' approach to:

- deliver and advocate for a coordinated, integrated and consistent approach to waste planning and resource recovery.
- provide an efficient, cost effective and integrated network of services and infrastructure.
- encourage innovative thinking and approaches to resource recovery.
- ensure an integrated / holistic approach to compliance, enforcement and education on illegal waste disposal.

Implementation of the Regional Strategy is dependent on the NSW Government continuing to provide funding post July 2021. Relevant actions from the Regional Strategy have been incorporated into this Strategy.

### 2.1.4 Local

Local government plays an important role in providing residential waste services.

*Cessnock 2027 Community Strategic Plan* identifies the community's main priorities for the future and sets strategies for achieving these goals. Objective 3.3 identifies better waste management and recycling as a key community priority with the strategic direction that we divert more of our waste for recycling or reprocessing.

*Cessnock Council's Waste Management Strategy 2014-2019* was used as a guiding document during development of this new strategy. The major achievements of the previous strategy are the:

- introduction of a garden organics kerbside collection
- construction and operation of a transfer station at Cessnock Waste Management Centre

The number of households in Cessnock Local Government Area (LGA) at June 2019 was 23,197. This is anticipated to grow to around 35,000 by 2036, which will have a significant impact on the provision of waste services.

The community has indicated via the *Community Satisfaction Research Report March 2019*:

- 90% of the community rates waste management as a priority for Council
- 'Waste collection and disposal', 'Litter control / illegal dumping' and 'recycling and waste reduction' were rated in the top five services of importance
- 'Recycling and waste reduction' was listed in the top 5 services for community satisfaction
- Council is providing a 'moderately high' level of satisfaction for 'waste collection and disposal'.

## 2.2 STRATEGY DEVELOPMENT

The development of this Strategy considers the strategic drivers and incorporates community feedback and recommendations of the Options Report.

### 2.2.1 Community Consultation

A community survey was conducted during May 2019. The survey aimed to gather information on the services Council provides around five key areas that were identified as being of most interest to our customers:

- bulky waste service preferences (i.e. vouchers or kerbside pickup)
- inclusion of food in the garden organics bin
- household waste collection post food being added to the organics bin
- Cessnock Waste Management Centre
- illegal dumping

The draft Strategy was placed on public exhibition with feedback considered prior to final report and consideration by Council.

### 2.2.2 Waste Strategy Options

A Waste Strategy Options Report was prepared prior to development of the Strategy. The report includes a high-level review of Cessnock's waste services and infrastructure, benchmarking of key services with comparable councils and identifies a range of strategic options and recommendations.

**1. Review of Waste Services & Options for Improvement**  
(April – October 2019)

**2. Community Consultation**  
(April – June 2019)

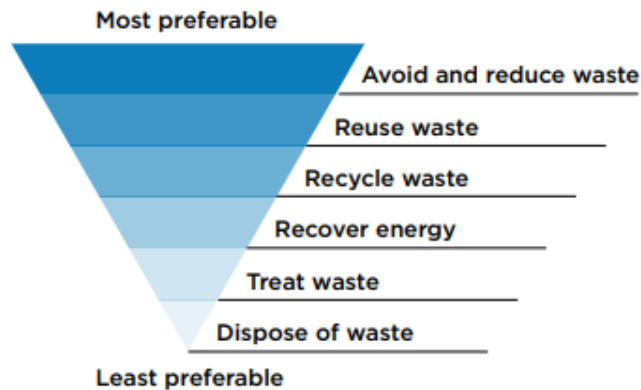
**3. Strategy Development**  
(December 2019 – January 2020)

**4. Report to Council**  
(4 March 2020)

**5. Public Exhibition**  
(11 March - 8 April 2020)

**6. Adoption by Council**  
(17 June 2020)

# Understanding Waste



## 3.1 WASTE HIEARCHY

The Waste Management Hierarchy is an internationally recognised concept which lists waste management options in order of preference according to their sustainability and environmental impact.



## 3.2 CIRCULAR ECONOMY

The traditional linear economy, takes resources to makes goods that are bought, used and then disposed of as waste. The circular economy aims to eliminate waste by the continued use of resources.

*Images from NSW EPA and Simply Sustainable UK*

### 3.3 THE COST OF WASTE

Providing waste management services is a significant cost to Council and the community.

Every tonne of waste sent to landfill attracts the NSW Government waste levy. Currently the levy is \$143.60 per tonne (2019-20).

In 2018-19 Council paid \$5.5 million in waste levy charges to the NSW Government. This was a saving of \$2.4 million from the previous period (2017-18), which had a levy contribution of \$7.9 million. The savings were made through operational changes at the waste management centre, including greater focus on resource recovery through the introduction of the waste transfer station.

Operation of the waste management centre and landfill in 2018-19 cost just under \$3.5 million. There are considerable costs associated with operation of major plant, as well as safety and environment requirements for the site.

The current landfill is nearing its operational capacity. The construction of a replacement landfill cell, which is estimated to occur within the next five years, has been estimated at \$11 million dollars. The rehabilitating of the current landfill is anticipated to cost \$8 million.

Therefore the best way to reduce the cost of waste management is by continuing to divert material from landfill.

Recycling however does have a cost. Recyclable materials at the waste management centre costs around \$500,000 annually to transport and reprocess. The kerbside recycling and organics collection services cost in the order of \$3 million each year.

The cost of managing Councils waste services are applied through the Domestic Waste Management Charge (DWMC) in the rates or charged as gate fees to the users of the site. The breakdown of the DWMC for 2019-20 is shown in Figure 1.

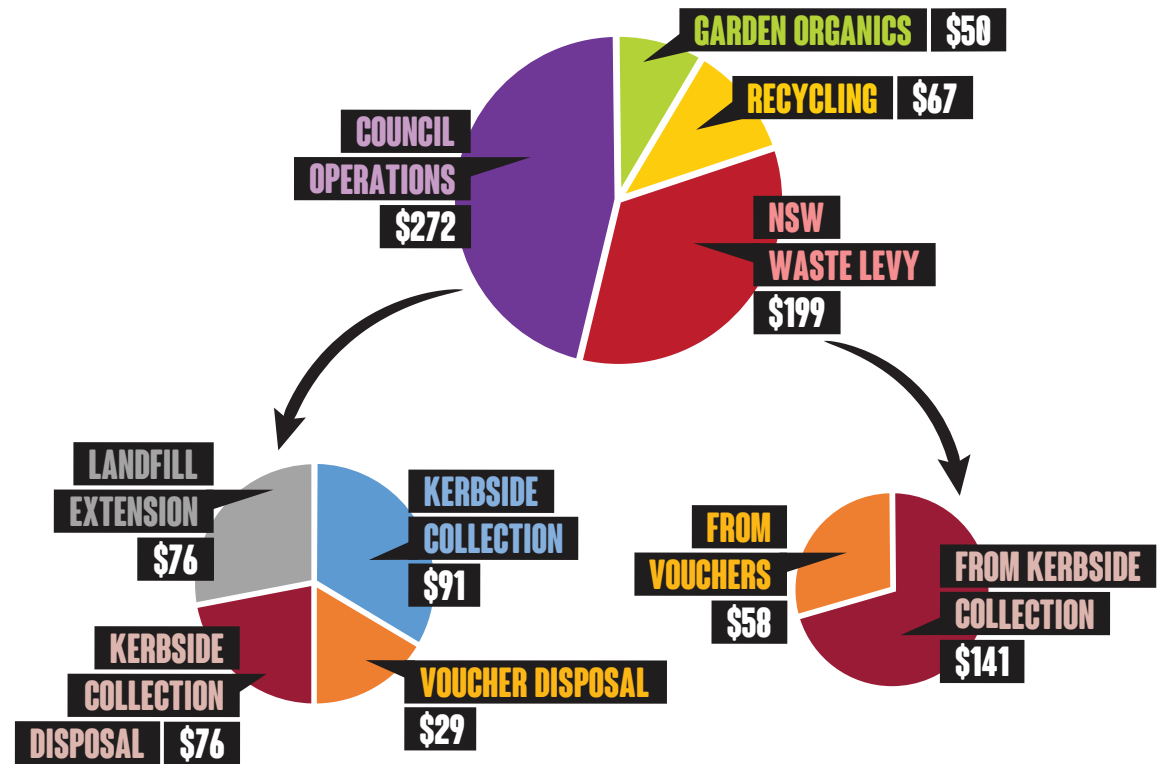


Figure 1. Breakdown of DMWC 2019-20



# Section 4

# Where we are today?

## 4.1 CURRENT SERVICES

The domestic waste service currently includes a three bin kerbside collection for approximately 22,000 properties across the LGA. The service comprises of weekly waste, fortnightly recycling and garden organics and waste vouchers for bulk waste disposal. Households out of the domestic waste service area are eligible to purchase alternate waste and recycling vouchers for waste disposal at Cessnock Waste Management Centre.

Cessnock Waste Management Centre, including the transfer station and landfill, operates under an Environmental Protection Licence that prescribes practices to manage the site to prevent pollution and limits quantities of waste to 60,000 tonnes per year. The current landfill cell has approximately 5 years lifespan remaining. Approval has been received for a landfill extension project which includes four new landfill cells with a 20 year lifespan.

The transfer station provides opportunities for resource recovery by directing customers past a series of drop-off points for various recoverable materials and household problem wastes. The facility includes a differential pricing strategy to encourage customers to separate materials for recycling and recovery.

Council delivers a range of complimentary environmental services to manage waste including litter and illegal dumping programs, drop-off events for mattresses and household chemicals, community education and communication regarding waste services, safe sharps disposal options and recycling stations for problem wastes.



*Kerbside collection of general waste*



*Mattress Drop Off*



*Cessnock Waste Management Centre*

## 4.2 WASTE DATA

### 4.2.1 Kerbside collection

In 2018/19, a total of 23,993 tonnes was collected from the kerbside. The proportion of material diverted from landfill, also known as the resource recovery rate, for the kerbside collection service for the period was 39%, as shown in Figure 2.

The average household bin for the Cessnock community based on bin audits conducted in October 2017 are displayed in Figure 3.

### 4.2.2 Cessnock Waste Management Centre

In 2018-19, a total of 29,181 tonnes of waste was received at the CWMC. The resource recovery rate at the centre (excluding the general waste kerbside collection) for the period was 24% (shown in Figure 2).

Waste vouchers contribute significantly to the total waste disposed of to landfill, as they don't encourage waste separation or minimisation. As shown in Figure 2, 63% (2018-19) of materials brought in via voucher transaction was disposed to landfill.

### 4.2.3 Total Waste

In 2018-19, overall Council diverted approximately 32% of waste from landfill.

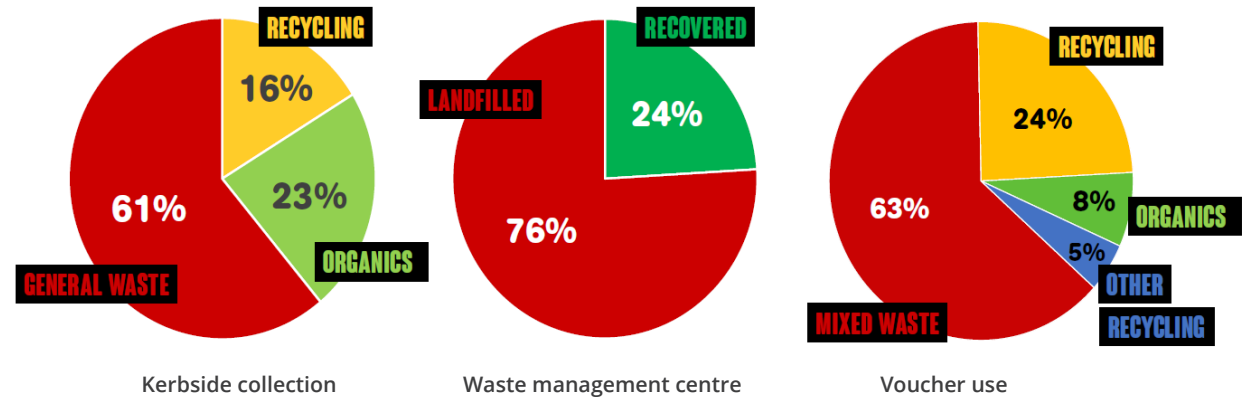


Figure 2. Waste composition data 2018-19



Figure 3. Average bin composition

### 4.3 COMMUNITY SURVEY

Just under 1,000 community members participated in the Waste Strategy Community Survey in May 2019. The full results of the community survey are available on Councils website. The key results regarding community preferences on kerbside collection and bulk waste services are displayed in Figure 4.

When asked about preferences for general waste collection, once the food organics collection commences, the responses demonstrate that the community is split between keeping the current size bin (240 litre) collected fortnightly or a smaller bin (140 litre) collected weekly.

The responses relating to bulk waste management indicates a preference for keeping vouchers over bulk kerbside collections.

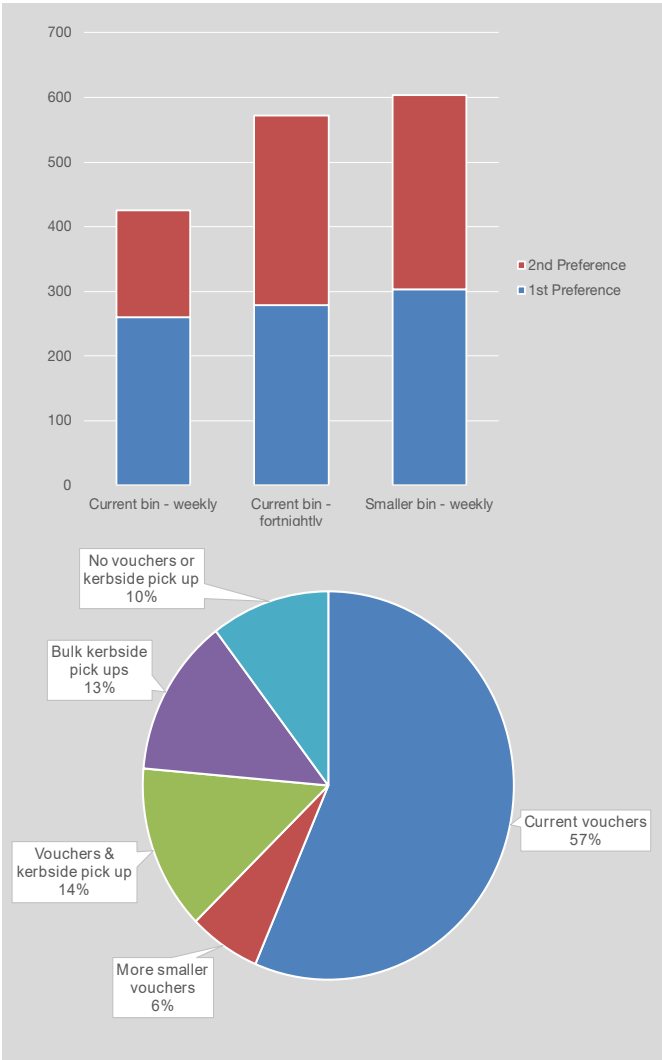


Figure 4. Results of community survey regarding general waste collection (top) and bulk waste services (bottom)

# What will we do?

Eight key focus areas have been identified for the Strategy to address the strategic drivers, community feedback and recommendations of the Options Report.

## 1 WASTE AVOIDANCE

Both the national and state government have set waste avoidance as a priority. Avoidance is the most cost effective process to manage waste for Local Government. Consumerism and single use/disposable products impacts on Councils ability to reduce waste to landfill.

Regional target - Reduce waste generation per capita consistently to achieve a 4% reduction by 2021-22 from the 2011-12 baseline (KPI: kg/capita/year).

Council will achieve this by:

Supporting and enabling waste avoidance and reuse behaviours through community education and engagement.

## 2 RESOURCE RECOVERY & CIRCULAR ECONOMY

Resource recovery and circular economy reduces the need to extract raw materials for production of goods, while reducing the amount of waste destined for landfill.

State and Regional target - Achieve a regional resource recovery rate for municipal solid waste (MSW) of 70% by 2021-22 from a 2011-12 baseline

Council will achieve this by:

Expanding opportunities for all sections of the community to increase recovery of resources.

Leading by example by increasing the recycled content in materials and products purchased by Council.

## 4 PROBLEM WASTE

Problem wastes include a range of products commonly used in households that when disposed of in kerbside bins and landfill have the potential to pollute the environment and harm human health.

Council will achieve this by:

Continuing existing programs to manage problem waste responsibly and investigate opportunities to expand as required.

## 3 DIVERSION OF WASTE FROM LANDFILL

Landfilling waste is expensive and unsustainable as the land is permanently lost from agricultural, housing or commercial use and has potential future contamination liabilities.

State and Regional target - Achieve a landfill diversion rate of 75% by 2021-22 from a 2011-12 baseline.

Council will achieve this by:

Providing increased opportunity for resource recovery while decreasing capacity to dispose of waste to landfill.



## 5 WASTE EDUCATION & COMMUNITY ENGAGEMENT

The involvement of the community to effectively use waste services is critical to Council's success in reaching waste minimisation and diversion targets.

Council will achieve this by:

Enabling the community to take full advantage of waste minimisation opportunities by providing appropriate knowledge and skills.

## 6 WASTE SERVICE EFFICIENCIES

Continuous improvement is required in order to provide a sustainable cost effective waste service to the community.

Council will achieve this by:

Reviewing and updating processes and procedures to improve efficiency of services provided.

## 7 WASTE INFRASTRUCTURE

To provide the infrastructure required for the ongoing provision of a sustainable cost effective waste service to the community.

Council will achieve this by:

Securing the future of waste services by ensuring infrastructure is available, appropriately managed and utilised.

## 8 LITTER & ILLEGAL DUMPING

Littering and illegal dumping can cause serious pollution, harm human health and be detrimental to local amenity.

Regional target - Reduce the volume of litter by 40% by 2020 and illegal dumping incidents by 30% of the 2010-11 levels by 2020-21.

Council will achieve this by:

Providing services and opportunities for the community to reduce litter and illegal dumping through community education, enforcement, installation of deterrents and clean-up activities.



# Section 6

# Action Plan

Council has developed clear strategic actions for each focus area, which are detailed in the table below.

Action	Timeframe	Responsibility	Budget
<b>1 WASTE AVOIDANCE</b>			
1.1 Develop a community engagement program targeting attitudes to consumption (e.g. food waste, fast fashion, fast furniture, single use items)	Design 2020-21 Implement 2021-25	SO ( <i>temp to March 2021</i> ) Resource required (WEO)	BWRF Funded Funding required
1.2 Continue to work with the region to deliver waste avoidance programs (e.g. Small Acts Big Change)	2020-25	Resource required (WEO)	Funding required 2021-25
<b>2 RESOURCE RECOVERY &amp; CIRCULAR ECONOMY</b>			
2.1 Investigate options to expand recovery streams (e.g cardboard, soft plastics, polystyrene, timber)	2020-25	SPO ( <i>temp to July 2021</i> ) & WSC	Operational & capital budgets
2.2 Define KPI and reporting requirements in resource recovery contracts on renewal, including data provision and end destination details	2020-25	E&WM & WSC	Operational & capital budgets
2.3 Investigate the procurement of products with recycled content, including working with HJO and Regional Procurement (e.g It All Comes Back to You)	2021-24	All Council (SCTO)	Operational & capital budgets
2.4 Work with HRR and partner council's on new recycling contract, including a review of continuing with the corporate model	2021-23	E&WM & HRR Delegate	Operational budget
2.5 Work with service contract partners (Maitland and Singleton Councils) and providers (ANL and Solo) to assist our community when food is accepted in the organics bin	2021-25	Resource required (SO)	Operational budget
a. Develop and implement an education plan for FOGO	2021-25		Operational budget
b. Undertake an audit of waste and organics bins prior to FOGO service commencement	Oct 22 ( <i>2022-23</i> )		Funding required (WLRM)
c. Undertake trial to facilitate community behaviour change for FOGO (e.g bin lining options, kitchen tidies, pest and odour management)	Jul - Dec 2022 ( <i>2022-23</i> )		Funding required (WLRM)
d. Commence weekly FOGO collection, including distribution of tools and education materials	Mar 2023 ( <i>2022-23</i> )		Operational budget
e. Undertake an audit of waste and organics bins after commencement of FOGO service	Oct 23 ( <i>2023-24</i> )		Funding required (WLRM)
2.6 Review public place recycling, including an audit of public place waste bins	2024-25	SO	Funding required (WLRM)
2.7 Work with commercial premises to improve waste management including increase resource recovery	2024-25	Resource required (WEO)	Funding required (WLRM)

Action	Timeframe	Responsibility	Budget	
<b>3 DIVERSION OF WASTE FROM LANDFILL</b>				
3.1	Develop a Reuse Program to further reduce waste delivered to the CWMC being disposed of to landfill	Design 2020-21 Implement 2021-25	SO ( <i>temp to March 2021</i> ) SO & WSS	BWRF Funded Operation budget
3.2	Refine the current waste voucher system to include separate resource recovery and mixed waste vouchers <i>Removed as per Council Resolution (Motion 1191) on 4 March 2020</i>	2021-22	SPO ( <i>temp to July 2021</i> )	Operational budget
3.3	Review Council operational waste generation and develop improved management practices	2022-23	DW&I	Operational budget
3.4	Modify the standard waste collection service of 240L bins to a fortnightly frequency with the introduction of the 240L weekly collection of food and garden organic (FOGO) <i>Amended as per Council Resolution (Motion 1506) on 18 November 2020</i>	Mar 2023 ( <i>2022-23</i> )	E&WM	Operational budget
a.	Develop options to provide those households with larger waste needs such as additional bins and/or weekly collection at a reasonable cost <i>Amended as per Council Resolution (Motion 1506) on 18 November 2020</i>	Feb 2023 ( <i>2022-23</i> )		Operational budget
b.	Develop and implement an education plan for the change to the general waste bin <i>Reinstated as per Council Resolution (Motion 1506) on 18 November 2020</i>	2022-23		Operational budget
3.5	Continue to work collaboratively in the region to investigate alternatives to landfill for residual waste	2020-25	E&WM	Funding required 2021-25
<b>4 PROBLEM WASTES</b>				
4.1	Continue to work with the NSW EPA to implement Community Recycling Centre (CRC) and Household Chemical CleanOut	2020-25	SO	Funding required 2021-25
4.2	Consider expanding mattress drop off events to include other problem wastes (e.g. tyres)	2020-25	SO	Operational budget
4.3	Monitor potential emerging waste streams and investigate options for management (e.g. photovoltaic systems, fibreglass and engineered stone benchtops)	2020-25	E&WM	Operational budget
4.4	Review asbestos management processes to meet NSW EPA Asbestos Strategy objectives and guidelines	2021-22	WSC	Operational budget
<b>5 WASTE EDUCATION &amp; COMMUNITY ENGAGEMENT</b>				
5.1	Continue delivering education programs relating to organics, recycling and use of the waste management centre	2020-25	SO	Operational budget
5.2	Design and construct an education centre within the CWMC administration centre to enhance opportunities to deliver community engagement programs	2020-22	ID&PM	Capital budget
5.3	Engage permanent Waste Education Officer to evolve Councils educational activities to focus on community engagement and behaviour change	2021-22	E&WM	Operational budget
<b>6 WASTE SERVICE EFFICIENCIES</b>				
6.1	Undertake a trial for an on-demand user-pay bulk kerbside collection system that is subsidised for elderly and/or disabled residents <i>Removed as per Council Resolution (Motion 1191) on 4 March 2020</i>	2021-22	SPO ( <i>temp to July 2021</i> )	Operational budget
6.2	Assess the opportunity for expansion of the waste service area and remote services provision to encompass the whole LGA	2022-23	E&WM	Operational budget
6.3	Develop a system to consolidate waste data and analyse trends for improved reporting and evaluation of services	2023-24	Resource required	Operational budget
6.4	Review and develop policies, protocols and procedures to increase efficiency of the waste service (e.g. bin presentation, business continuity, development control plan (DCP), alternative services and landfill management)	2020-25	E&WM	Operational budget

Action	Timeframe	Responsibility	Budget	
<b>7 WASTE INFRASTRUCTURE</b>				
7.1	Undertake a cost benefit analysis for the operation of Greta Transfer Station	2020-21	SPO ( <i>temp to July 2021</i> )	Operational budgets
7.2	Review EPA licence options for the waste transfer station	2020-21	SPO ( <i>temp to July 2021</i> )	Operational budgets
7.3	Design and construct an administration centre, including staff offices and amenities at the CMWC to improve efficiency of waste services	2020-22	ID&PM	Capital budget
7.4	Continue development of the landfill extension	2020-24		Capital budget
a.	Secure and commence management of the biodiversity offset area	2020-21	SPO ( <i>temp to July 2021</i> )	
b.	Commence clearing of landfill extension area to access operational cover material for landfill.	2020-21	ID&PM	
c.	Commence construction of Stage 1 of the landfill extension project	2022-24	ID&PM	
7.5	Continue investigation and remediation of Councils' former waste sites to manage potential contamination	2020-25	SPO ( <i>temp to July 2021</i> ) & SO	Operational and capital budgets
7.6	Undertake an operational review of CWMC to improve accessibility and efficiency (e.g. hours of operation, fees and charges, staffing, plant, equipment and buildings)	2021-22	SPO ( <i>temp to July 2021</i> )	Operational budget
7.7	Prepare a Disaster Waste Strategy and Disaster Waste Management Plan (e.g. bushfires, floods, storms)	2022-23	Resource required	Operational budget
<b>8 ILLEGAL DUMPING &amp; LITTER</b>				
8.1	Participate in the EPA's Litter Prevention Initiative	2020-21	Resource required	Funding required (WLRM)
8.2	Continue participation in Regional initiatives to combat illegal dumping (e.g. RID)	2020-25	RIDO	BWRF & WLRM Funded 2020-21 Funding required 2021-25
8.3	Work within the region to develop and deliver a community engagement program focussing on social responsibility for waste and community reporting of illegal dumping	2020-25	SO & RIDO	Funding required
8.4	Undertake a review of Council's Illegal Dumping and Litter Plan	2021-22	SO	Operational budget
8.5	Ensure appropriate number and placement of litter bins throughout LGA	2022-23	SO	Operational budget





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