



CUMBERLAND  
COUNCIL



# Cumberland Waste and Resource Recovery Strategy 2018 - 2023

the 1990s, the number of people in the UK who are employed in the public sector has increased from 10.5 million to 12.5 million, and the number of people in the public sector who are employed in health care has increased from 1.5 million to 2.5 million (Department of Health 2000).

There are a number of reasons for this increase. One of the main reasons is the increasing demand for health care services. The population of the UK is ageing, and there is a growing number of people with chronic conditions such as heart disease, diabetes, and asthma. This has led to an increase in the number of people who need to be treated in hospitals and other health care settings.

Another reason for the increase in the number of people employed in the public sector is the increasing demand for health care services. The population of the UK is ageing, and there is a growing number of people with chronic conditions such as heart disease, diabetes, and asthma. This has led to an increase in the number of people who need to be treated in hospitals and other health care settings.

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# 1. Introduction

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As the economy grows and the consumption of goods and services increases, the quantities and types of waste we produce have expanded and diversified. In response, waste management practices have been required to adapt to developing markets, changing policy and legislative requirements, and community expectations. Most notably, more traditional solutions such as landfill are becoming less acceptable as a primary means of waste management, while the benefits of re-use and recycling activities, and resource recovery technologies, are becoming more essential.

Waste generation and disposal places a significant burden on the environment, with every tonne of waste disposed to landfill contributing to air and land pollution, and loss of valuable resources that could otherwise be used to make alternative products. Recognising the need for change, the traditional view of waste management, one of 'produce – consume – dispose' (a linear way of thinking), is being replaced with the principles of a 'circular economy'. A circular economy places greater value on our resources, driving innovative waste management and recycling solutions for recovery and recirculation of materials back into our economy.

The increased demand for materials and a greater need to recirculate resources are changing the face of waste management across the world. However, the quality of cleanliness of collected recyclable materials impacts the manufacturing processes that are able to be used and the types of products that can be made. This relationship between demand and the quality of materials is emphasised by changing international markets. For example, in 2018 China's National Sword Policy saw a tightening of their quality requirements for the receipt of exported recyclable materials, which impacted Australian (and overseas) recycling markets and highlighted the need for longer-term local solutions to recycling that are not dependent on overseas processing.

In addition to market forces, current challenges facing Western Sydney include an increase in housing density, bringing with it population and infrastructure pressures that may see dramatic changes in how waste is collected and managed in the long-term.

Cumberland Council is working to address these challenges with its community through the implementation of this 2018-2023 Waste and Resource Recovery Strategy (the Strategy). Council is committed to leading by example and will make improvements to internal department resource use and recycling to demonstrate that taking responsibility for wastes generated by activities, regardless of the amount, is necessary to the achievement of greater sustainable outcomes.

## 1.1 COMMUNITY FOCUS

Cumberland Council was formed in 2016 following the NSW council amalgamation program, 'Fit for the Future', that brought the former Holroyd and Auburn Councils and Woodville Ward (from Parramatta) into one unified Local Government Area (LGA). This Strategy covers the newly formed Council's challenge of harmonising the range of waste services residents receive, and ensuring the cleanliness of public places, whilst setting out a strategic direction that will address the future needs of Cumberland residents.



To support the Strategy development process, extensive consultation with the community was carried out to better understand community values and preferences, and the community's view on aligning the waste management services offered to residents from the former council areas. The Strategy responds to a number of key themes emerging from consultation with community and key stakeholders. These are:

- Improved community waste education
- Support for increased household recycling
- Concerns about improving public place cleanliness.

## 1.2 STRATEGY FRAMEWORK

Commencing in 2018, the Strategy provides a framework for delivering waste management services and initiatives over a 5-year period through to 2023. The Strategy presents a community-focused Vision and Goals section, designed to communicate the core direction of the Strategy, in addition to six focus areas, each having specific objectives and targets that Council will work towards over the duration of this Strategy.

## Community Focus

### VISION

A strategic approach to waste management, that supports our community to reduce waste, encourages resource recovery and ensures clean public places.

### GOALS

Responsible Community	Improving Resource Recovery	Focusing on service	Leading by example	Maintaining clean places
				
Create a 'waste aware' Cumberland where residents are informed and engaged with waste services	Investigate, implement and monitor opportunities that improve resource recovery	Deliver effective and accessible waste and street cleansing services to Cumberland residents	Close the loop by recycling more and purchasing recycled materials	Deliver clean places to ensure the Cumberland environment

## Operational Focus

KEY FOCUS AREA 1:	KEY FOCUS AREA 2:	KEY FOCUS AREA 3:
Avoid and reduce waste generation 	Increase recycling and divert more waste from landfill 	Manage household problem waste better 
KEY FOCUS AREA 4:	KEY FOCUS AREA 5:	KEY FOCUS AREA 6:
Reduce illegal dumping and littering and ensure cleanliness 	Lead by example 	Improve Council's waste profile in the community 

### 1.3 STRATEGY DEVELOPMENT CONTEXT

The Strategy development process was designed to balance the needs of external stakeholders with the internal capabilities of Council. The following section provides a summary of the key legislative and policy drivers, in addition to broader waste industry drivers for change, and sets out how these translate to the strategic direction of Council’s waste management services.

#### 1.3.1 Legislative and Policy Framework

The *Essential Services Act 1988* No. 41 outlines Council’s statutory duty to provide waste services. Council is then able to apply an annual Domestic Waste Management Services charge under Section 496 of the *NSW Local Government Act 1993*. The NSW Environmental Protection Authority (EPA) regulates all waste services through the *Protection of the Environment Operations (POEO) Act 1997*. The POEO Act defines waste types, use of Environmental Protection Licences (EPLs) and the use of levy payments.

The *Protection of the Environment Operations (Waste) Regulations 2014* outlines waste facility requirements including contributions or levies, records, tracking, transportation and exemptions to the levy. The *NSW Waste Avoidance and Resource Recovery Act 2001* (WARR Act) sets out the framework for the development of waste strategies for NSW. The EPA has also developed the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (NSW WARR Strategy) which provides a high-level framework demonstrating the long-term direction, priorities and role of Local Government in achieving these priorities.



#### 1.3.2 NSW WARR Strategy 2014–21 Themes

NSW WARR Strategy 2014-21 indicates six key result areas (KRAs) for targeted action:

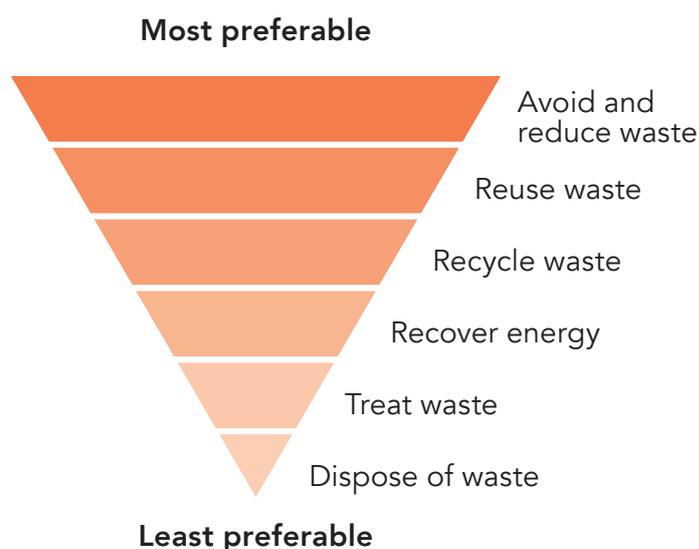
- KRA 1: Avoid and reduce waste generation
- KRA 2: Increase recycling
- KRA 3: Divert more waste from landfill
- KRA 4: Manage problem wastes better
- KRA 5: Reduce litter
- KRA 6: Reduce illegal dumping

The Government’s agenda for change throughout NSW is further outlined in the document ‘*NSW 2021: A plan to make NSW number one*’, and provides a requirement for developing regional waste strategies and collaboration to deliver the ‘*Waste Less Recycle More*’ initiative with \$465.7 million of funding to transform waste and recycling in NSW.

#### 1.3.3 The Waste Hierarchy

Council’s waste management services are influenced by National Policy and the NSW Strategy. Each is guided by the principles of the international waste hierarchy, which champion the concept of sustainable waste management. The waste hierarchy below sets out the preferences for waste management solutions; stressing the importance of waste avoidance and minimisation, and seeking to recover the highest value from materials. Producing recyclable material of a high quality is important so that further processing or disposal is minimised or avoided.

Figure 1-1: Waste Hierarchy<sup>1</sup>



<sup>1</sup> Sourced from the NSW WARR Strategy 2014-21

# 1. Introduction (continued)

## 1.3.4 The Circular Economy and Overseas Processing of Recyclables

During the development of this Strategy the stability of international recycling markets has been placed under the spotlight as China's 'National Sword' policy all but closed the door to NSW recyclers. China was the world's biggest consumer of recyclable materials and NSW's primary market for overseas processing of recyclable materials such as plastic and paper fibres. As such, processing alternatives for these recyclable materials need to be found. While many look towards alternative overseas processing opportunities in Asia and India, the waste industry has urged that National and State processing capacity is supported in Australia to buffer international market dependency impacts, while also enabling a more circular economy approach to resource recovery.

The circular economy is a resource use model that encompasses design, manufacturing and materials in such a way as to reduce the amount of resources leaving the consumption pathway and ending up in landfill. Designing for repair, remanufacture and effective recycling are circular economy principles that redefine products, product manufacture quality and services in order to design out waste.

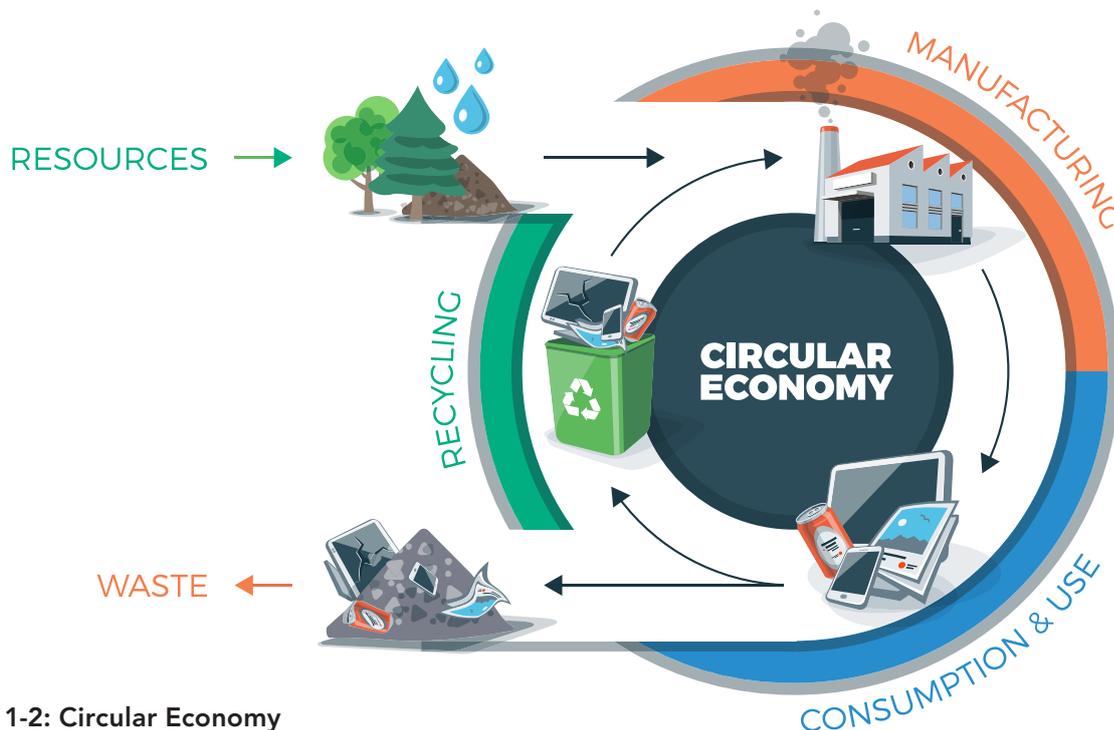


Figure 1-2: Circular Economy

## 1.3.5 The Western Sydney Regional WARR Strategy

Cumberland Council also collaborates with other councils across the Western Sydney region to improve and ensure waste services and resource recovery. Collectively, councils are able to achieve greater outcomes by sharing information, advocating for better policy and planning guidance, seeking improved waste contract terms and developing new waste infrastructure.

The Western Sydney Regional WARR Strategy adopts objectives and targets that sit within each of the NSW WARR Strategy's key result areas. The objectives of the regional strategy are summarised below:

- Increase opportunities for waste avoidance and re-use in the region by 2021
- Work towards a domestic waste resource recovery rate of 70% by 2025

- Reduce the amount per capita of recyclable material in the kerbside residual waste bin by 2021
- Waste planning is strengthened at a State department level by 2021 and is considered in all significant development and strategic planning
- Increase opportunities for the responsible disposal of household problem waste by 2021
- All programs maintain majority participation by councils across the life of the Regional Litter Plan
- Deliver projects that address illegal dumping in five council areas by 2021
- Identify five new opportunities for regional collaboration by 2021.

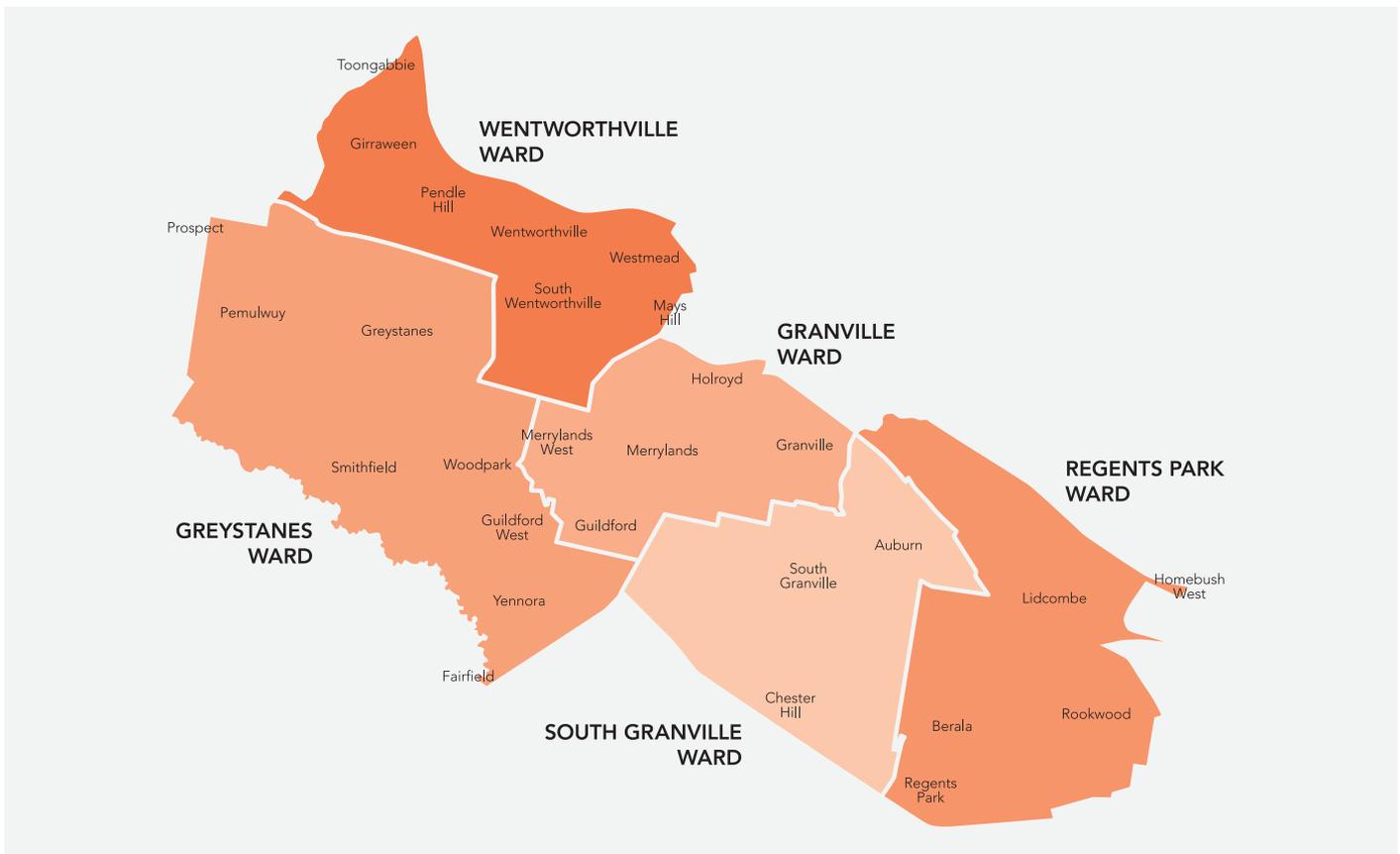


Figure 2-1: Cumberland Council Wards<sup>3</sup>

## 2. Where are we today?

### 2.1 POPULATION AND DEMOGRAPHIC INFORMATION

The newly created Cumberland Council is one of the most culturally diverse and vibrant Local Government Areas (LGAs) in NSW. Australian Bureau of Statistics (ABS) 2016 Census data indicated that approximately 220,000 residents chose to live in the Cumberland LGA at that time, making it one of the most populous LGAs in NSW. Council, therefore, recognises the opportunity to implement a new community vision, resulting in the future of Cumberland being expressed as ‘Welcome, Belong, Succeed.’

Located in Sydney’s western suburbs about 25 kilometres from the Sydney CBD, the Cumberland community is the epicentre of modern multicultural Australia. With nearly half (48%)<sup>2</sup> of all residents born overseas and almost a quarter (24%)<sup>2</sup> having arrived in Australia in the last five years, the area is, for many, their first introduction to life in Australia. For 45% of residents

English is a second language, with Arabic (15.2%)<sup>2</sup> and Mandarin (6.3%)<sup>2</sup> being the most commonly spoken other languages.

The area of the Cumberland LGA is 72 square kilometres (km<sup>2</sup>). This area encompasses the five wards of Greystanes, Wentworthville, Granville, South Granville and Regents Park (see Figure 2-1). The LGAs boundary stretches from Rookwood Cemetery in the east, along the M4 Motorway and Western Rail Line in the north, to Prospect Creek in the south and Prospect Hill in the west. The post-amalgamation change in area resulted in the gain of residents and households from the former Woodville Ward of Parramatta and the amalgamated Councils of Auburn and Holroyd. As part of the boundary realignments, Council also experienced a loss of some residents and households to Parramatta from Newington, Silverwater, Sydney Olympic Park, Wentworth Point, and parts of the Granville, Lidcombe, Mays Hill, Merrylands and Parramatta areas.

<sup>2</sup> ABS 2016 Census

<sup>3</sup> Source: *Cumberland Delivery Program 2017-2021*

## 2. Where are we today? (continued)

The estimated resident population for the Cumberland LGA in 2016-17 was 229,464<sup>4</sup>, with a population density of 31.54 persons per hectare<sup>5</sup>. Table 2-1 provides a demographic profile for the region.

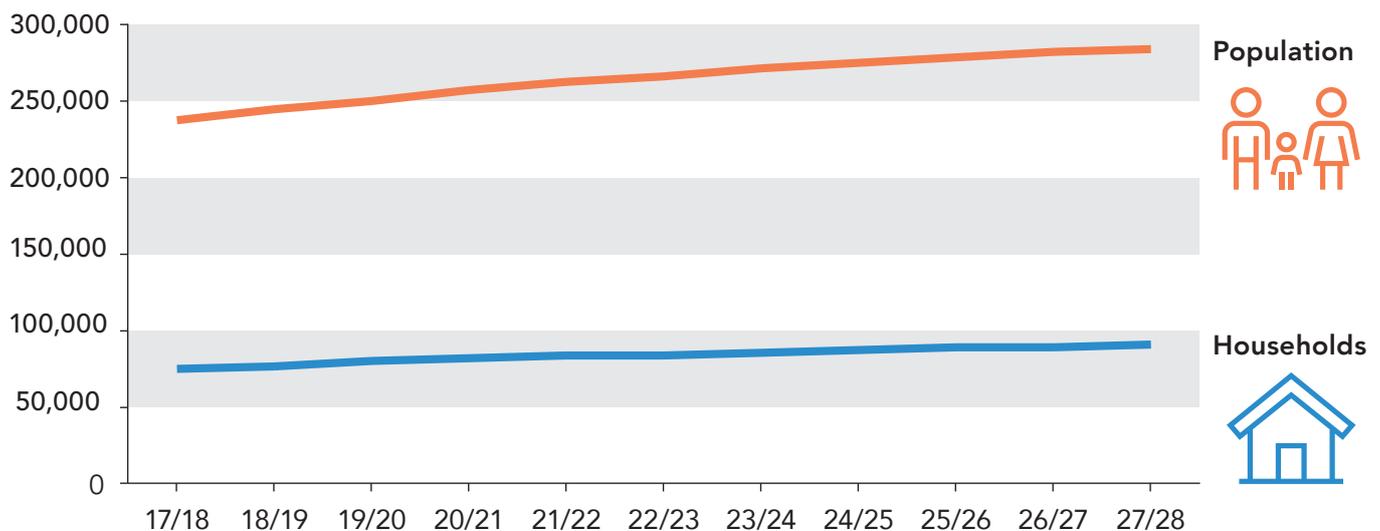
The LGA experienced an estimated 3% annual population growth between 2015-16 and 2016-17. There was very little change to the average number of residents per household over the projected period; however, the Cumberland LGA has a higher-

than-average population density compared to the Greater Sydney region. The future projected growth in population and household numbers for the LGA between 2017-18 and 2027-28 is illustrated in Figure 2-2 below. The projection covers the 5-year duration of this Strategy (between 2017-18 and 2022-23), as well as a further 5 years to 2027-28 to assist with future reviews of the Strategy.

**Table 2-1: Demographic Profile for the Cumberland LGA, 2016/17**

Population	No. of Households	No. of Single Unit Dwellings (SUDs)	No. of Multi-Unit Dwellings (MUDs)	Average persons per household
229,464	72,437	44,101 (61%)	28,337 (39%)	3.14

### Population and Household Numbers



**Figure 2-2: Future Projected Growth in Population and Household Numbers for the Cumberland LGA, 2017-18 to 2027-28**

## 2.2 COUNCIL'S WASTE SERVICES

### 2.2.1 Kerbside Bin Collection Services

Council operates a three-bin kerbside collection system for residents located in the former Woodville Ward and Auburn LGA. Residents in the former Holroyd LGA currently receive a two-bin kerbside collection system; however, Council are planning to roll out an 'opt-in' garden organics service to all former Holroyd residents in 2018-19.

<sup>4</sup> Figures have been adjusted from calendar year to financial year to align with Council's waste data and reporting periods

<sup>5</sup> Source: <http://profile.id.com.au/cumberland>. Accessed 19/01/2018.

The majority of household garbage bins in use are 240 litre bins, with some 140 litre and 120 litre bins used in the former Woodville Ward and Auburn LGA. Red lid bins are used for garbage (also referred to as 'residual waste') and are collected weekly, with yellow lid bins used for dry recyclables (also referred to as 'co-mingled recycling') and are collected fortnightly. The former areas of Auburn and Woodville Ward also use a green lid bin for the collection of garden organics, which is collected fortnightly and all Cumberland residents have access to a free garden organics drop-off service at the Fairfield Road Depot in Guildford West.

### 2.2.2 Kerbside Clean-Up Services

Council aligned the kerbside clean-up services across all wards in early 2018, providing residents with access to four pre-booked kerbside clean-up services for the disposal of bulky household waste. A maximum load size of two cubic metres (2m<sup>3</sup>) per household is allocated for each booked collection, with all bulky household waste delivered to Dial A Dump Industries for additional resource recovery.

As an alternative to Council's kerbside clean-up service, residents are encouraged to donate bulky household items that are in good condition to local charitable organisations.

## Advanced Waste Treatment

Cumberland Council currently sends the red lid bin waste collected from the former Holroyd LGA to the Suez UR3R facility in Eastern Creek. This facility has advanced waste treatment technologies that both extract the readily recyclable content (such as plastic bottles, cans and glass) and composts the organic content. The recovered recycling is sent to reprocessing markets and the composted organic component is used for mine rehabilitation projects. About 40% of the waste is contaminated or unsuitable for recycling. This rejected portion is sent to landfill for disposal.

### 2.2.3 Drop-Off and Mobile Household Waste Services

Cumberland and Parramatta Councils share the use of a Mobile Community Recycling Service, which visits residential properties to remove problem wastes such as gas bottles, paint cans, household batteries, motor oils, light globes, cooking oils, electrical items and smoke detectors. The service is free for residents and is organised through a booking service. The Mobile Community Recycling Service collected 35 tonnes of problem waste in 2016-17 (with 85 tonnes collected within the first two years of operation).

Council also provides a number of other options for the safe disposal of waste, including:

- Syringes can be dropped off at participating pharmacies and some Council service centres
- Drop-off points are provided at Council facilities for mobile phones and batteries
- Printer cartridges may be disposed of via Cartridges 4 Planet Ark
- Annual chemical cleanout drop-off events (operated by the NSW EPA)
- Garden organics drop-off at the Council's Guildford West Depot.
- Asbestos Awareness Program

### 2.2.4 Council's Public Place Cleansing Services

Council's Public Place Cleansing Services extend across the Council area. Intensive street-cleaning services are provided in the town centres, through both day and night shifts. Cleaning of the town centres is undertaken seven days a week, every day of the year. This includes emptying street litter bins, litter collection, street sweeping, sweeping public car park areas and removal of posters on poles. Footpaths, bin enclosures and other street furniture are washed weekly.

- Outside the town centres, routine litter collection and street sweeping is undertaken, with the frequency determined by the particular requirements of each area.
- Litter bins in parks and reserves and small commercial areas are serviced multiple times each week.
- Residential streets are swept on a cyclic program which includes cleaning of storm-water pits.
- Cleaning Services also includes the removal of graffiti from public property.

Council's Compliance and Environment Unit, in collaboration with the NSW Regional Illegal Dumping (RID) Squad, investigates instances of illegally dumped rubbish and takes enforcement action wherever sufficient evidence exists. In addition, Council's waste collection contractor proactively patrols designated hotspots, removing illegally dumped rubbish. Where Council's contractor receives a report of illegally dumped rubbish it is collected within 24 hours of notification.



## 2. Where are we today? (continued)

### 2.3 DOMESTIC WASTE GENERATION

Cumberland households produce approximately 80,000 tonnes of waste each year, and approximately half of this currently goes to landfill. A breakdown of waste collected via Council's kerbside, clean-up and drop-off services is provided in Table 2-2.

Due to boundary improvements made during the

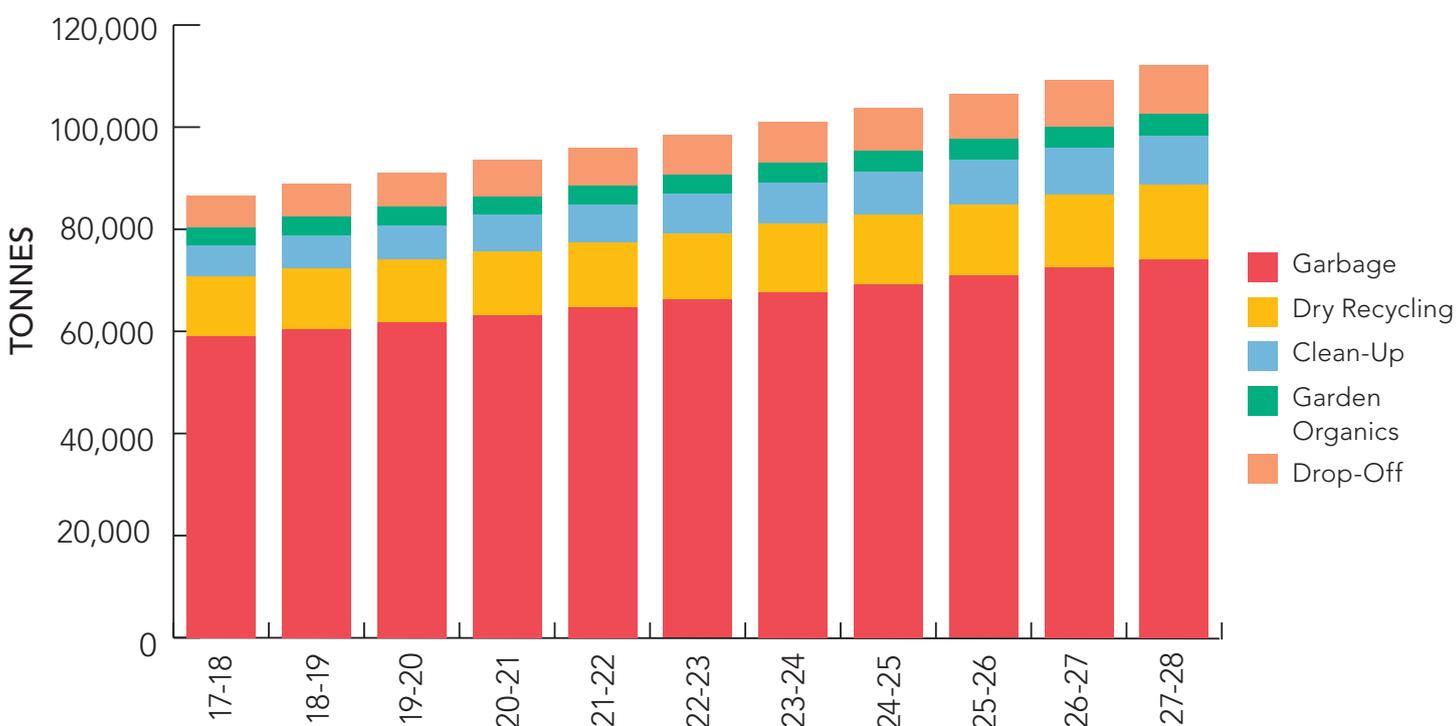
formation of the Cumberland Council LGA, it has been necessary to estimate baseline waste tonnages\* generated for the 2016-17 financial year (see Table 2-2). The 2017-18 reported waste tonnages collected within the new LGA boundaries will incorporate a higher degree of accuracy and alignment for the amalgamated areas.

**Table 2-2: Waste Generation for all Domestic Waste Streams, 2016-17**

	Kerbside Residual	Kerbside Recycling	Kerbside Organic	Total Kerbside	Clean-Up	Drop-Off (Garden Organics)	Drop-Off (All Other)
<b>Total Estimated Tonnes</b>	57,700	11,387	3,367	72,454	5,961	1,346	202
<b>Kilograms per Person per Year</b>	251	50	15	316	26	5.9	0.9
<b>Kilograms per Person per Week</b>	4.8	1.0	0.3	6.1	0.5	0.11	0.02

### 2.4 ESTIMATED DOMESTIC WASTE GROWTH

A review of the historical waste data from the former Auburn and Holroyd LGAs, and Woodville Ward indicates that kerbside waste generation rates have stabilised and grow at a similar rate to household numbers<sup>6</sup> Figure 2-3 shows the future projected waste generation amounts by waste stream for the next 10 years.



**Figure 2-3: Future Projected Waste Generation by Waste Stream, 2017/18 to 2027/28**

<sup>6</sup> The use of Household represents the number of bin collections provided by Council and is a more reliable data point for review.

\* Estimates for baseline waste tonnages for the 2016-17 financial year were calculated using a set waste generation rate per dwelling for each of the former Council areas multiplied by the number of dwellings in each of the newly formed Council areas. These figures were summed to find the total waste tonnage generation for the Cumberland LGA

## 2.5 WASTE COMPOSITION

A waste snapshot audit of household kerbside bins was undertaken during October and November 2016. The audit provided information on the waste composition for each of the three kerbside bins in use across the Cumberland LGA. The audit identified that about 75% of the garbage bin contains materials that are potentially recyclable<sup>7</sup> through Council's kerbside and other services. Figure 2-4 provides a detailed breakdown of the types of materials found in the garbage bin (the red lid bin).

The audit also revealed that approximately 14% of materials in the co-mingled recycling bin could not be recycled. Contaminants included soft plastic films such as plastic bags and recyclable containers soiled with food organics.



**Figure 2-4: Composition of the Garbage Bin (Red Lid Bin)**

<sup>7</sup> Note some materials are either too fine, contaminated or of mixed compositions, so are not currently recycled by VISY. Plastics are included in this figure as they have alternative recycling options.

<sup>7</sup> "Potentially recyclable" includes materials such as e-waste and paint that can be recovered through other schemes.



# 3. Where do we want to go?

## 3.1 VISION

The Vision for this Strategy is:

A strategic approach to waste management, that supports our community to reduce waste, encourages resource recovery and ensures clean public places.

## 3.2 GOALS

Council is aiming to achieve the following key goals through the implementation of this Strategy:

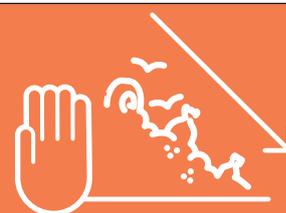
<b>Responsible Community</b> 	<b>Improving Resource Recovery</b> 	<b>Focusing on service</b> 	<b>Leading by example</b> 	<b>Maintaining clean places</b> 
<p>Create a 'waste aware' Cumberland where residents are informed and engaged with waste services</p>	<p>Investigate, implement and monitor opportunities that improve resource recovery</p>	<p>Deliver effective and accessible waste and street cleansing services to Cumberland residents</p>	<p>Close the loop by recycling more and purchasing recycled materials</p>	<p>Deliver clean places to ensure the Cumberland environment</p>

### 3.3 KEY FOCUS AREAS, OBJECTIVES AND TARGETS

Six key focus areas, each with their own set of Objectives and Targets, have been developed to deliver the Strategy Vision and Goals. These cover a range of activities and priority work areas and set out the foundation for waste management practices over the coming years. Each key focus area has specific objectives and targets against which progress can be measured.



#### KEY FOCUS AREA 1: Avoid and reduce waste generation



<b>Objectives</b>	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community’s understanding and engagement with waste avoidance and reduction practices</li> <li>To increase the range of options available for the community to avoid, reduce and re-use their waste</li> </ul>
<b>Targets</b>	<ol style="list-style-type: none"> <li>Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>Increase the number of options available for the community to avoid, reduce and re-use their waste by 2022-23 compared to a 2016-17 baseline</li> <li>Reduce overall waste generation per capita by 2022-23 compared to a 2016-17 baseline</li> </ol>
<b>Measureable Data Requirements</b>	<ul style="list-style-type: none"> <li>Total tonnes of waste generated per stream</li> <li>Population and number of residential dwellings</li> <li>Record of waste avoidance and reduction initiatives and events delivered</li> <li>Record of resources produced and disseminated</li> <li>Record of third-party organisations providing services</li> </ul>



**KEY FOCUS AREA 2:**  
 Increase recycling and divert more waste from landfill



<b>Objectives</b>	<ul style="list-style-type: none"> <li>• To develop and deliver initiatives to increase the community’s engagement and understanding of recycling and diversion from landfill</li> <li>• To increase the range of options available for the community to recycle their waste</li> <li>• To improve recycling rates and reduce bin contamination</li> </ul>
<b>Targets</b>	<ol style="list-style-type: none"> <li>1. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>2. Increase the number of options available for the community to recycle their waste by 2022-23 compared to a 2016-17 baseline</li> <li>3. Work towards a domestic waste and resource recovery rate of 70% by 2022-23</li> <li>4. Reduce bin contamination year on year</li> </ol>
<b>Measureable Data Requirements</b>	<ul style="list-style-type: none"> <li>• Total tonnes of waste generated by stream</li> <li>• Tonnage of waste diverted from landfill by recycling, composting and recovery</li> <li>• Record of waste service options for all waste streams</li> <li>• Record of community engagement activities</li> <li>• Awareness rating from annual resident survey</li> <li>• Record of bin contamination audits and inspections</li> </ul>



### KEY FOCUS AREA 3: Manage household problem waste better



<b>Objectives</b>	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community’s engagement and understanding of household problem wastes</li> <li>To increase the range of options available for the community to responsibly dispose of their household problem wastes</li> </ul>
<b>Targets</b>	<ol style="list-style-type: none"> <li>Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>Increase the number of options available for the community to responsibly dispose of their household problem wastes by 2022-23 compared to a 2016-17 baseline</li> <li>Increase the number of household problem waste bookings by 2022-23 compared to a 2016-17 baseline</li> </ol>
<b>Measureable Data Requirements</b>	<ul style="list-style-type: none"> <li>Total tonnes of problem waste collected by type</li> <li>Record of community engagement activities</li> <li>Record of waste service options for all problem waste types</li> <li>Awareness rating from annual resident survey</li> </ul>



**KEY FOCUS AREA 4:**  
 Reduce illegal dumping and littering and ensure cleanliness



<p><b>Objectives</b></p>	<ul style="list-style-type: none"> <li>• To develop and deliver initiatives to increase the community’s understanding and engagement on the impacts of illegal dumping and littering</li> <li>• To develop and implement an Illegal Dumping Management Action Plan to reduce the incidence of illegal dumping</li> <li>• To develop and implement a Public Place Cleansing Action Plan to improve street cleanliness and reduce littering</li> </ul>
<p><b>Targets</b></p>	<ol style="list-style-type: none"> <li>1. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>2. Decrease the number of illegal dumping incidences at defined hot spots by 2020-21 compared to a 2016-17 baseline</li> <li>3. Increase community satisfaction scores for the cleanliness of urban and open areas by 2020-21 compared to a 2016-17 baseline</li> </ol>
<p><b>Measureable Data Requirements</b></p>	<ul style="list-style-type: none"> <li>• Record of community engagement activities</li> <li>• Records of the number of illegal dumping incidences for defined hotspots</li> <li>• Maintenance of a hotspot register</li> <li>• Record of tonnes of illegally dumped waste</li> <li>• Increased data capture of types of dumped waste</li> <li>• Public response rating on the cleanliness of urban and open area from annual resident survey</li> </ul>



**KEY FOCUS AREA 5:**  
Lead by example



<p><b>Objectives</b></p>	<ul style="list-style-type: none"> <li>• To improve waste collection service standards, waste planning and design guidelines</li> <li>• To provide the community with a clear understanding of the waste and resource recovery services provided by Council</li> <li>• To establish data management and information technology systems</li> <li>• To increase internal waste avoidance and recycling across all Council facilities</li> <li>• To incorporate circular economy principles to encourage innovation and stimulate new markets</li> </ul>
<p><b>Targets</b></p>	<ol style="list-style-type: none"> <li>1. Deliver a fit-for-purpose data collection and reporting system to ensure waste data tracking by 2022-23</li> <li>2. Increase the organisation’s awareness of waste and resource recovery services as indicated through internal surveys by 2020-21 compared to a 2016-17 baseline</li> <li>3. Year-on-year improvement in service standards addressing waste planning and design</li> <li>4. Develop effective methods that drive the uptake of circular economy principles in consultation with industry</li> </ol>
<p><b>Measureable Data Requirements</b></p>	<ul style="list-style-type: none"> <li>• Storage and accessibility of all measureable data requirements listed for each key focus area</li> <li>• Awareness rating through community surveys</li> <li>• Awareness rating through Council staff surveys</li> <li>• Satisfaction levels from community surveys and feedback</li> <li>• Implementation of better practice waste planning guidance</li> <li>• Record of proposals and adoption of circular economy principles</li> </ul>



**KEY FOCUS AREA 6:**  
**Improve Council’s waste profile in the community**



<b>Objectives</b>	<ul style="list-style-type: none"> <li>• To increase awareness and recognition of Council’s waste and resource recovery services</li> <li>• To provide transparency around Council’s waste and resource recovery performance</li> </ul>
<b>Targets</b>	<ol style="list-style-type: none"> <li>1. Increase community recognition of Council services and the importance of recycling correctly as indicated through annual surveys</li> <li>2. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>3. Make waste and resource recovery performance and survey results accessible to the community by 2020-21</li> <li>4. Ensure online access to information and resources on waste and resource recovery services by 2018-19</li> </ol>
<b>Measureable Data Requirements</b>	<ul style="list-style-type: none"> <li>• Awareness rating through annual resident surveys</li> <li>• Readership (clicks/unique visitors) of website waste information pages and number of downloads</li> <li>• Readership of Council’s waste performance summaries</li> <li>• Campaign-specific metrics such as pledges, event attendees and participants</li> <li>• Number of complaints received</li> <li>• Record of community engagement activities</li> </ul>



## 4. How are we going to get there?

Council is committed to improving existing waste services and helping residents to use these services better. The steps Council needs to take to achieve this include:

- harmonisation of all legacy collection and disposal contracts
- standardisation of waste services offered to residents across the LGA
- support provision to the community to fully use services
- improvement of internal operational and data management processes
- delivery of improvement actions identified where practicable.

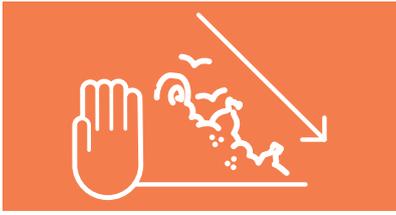
To support the future direction of Cumberland's waste services, Council undertook a social research and public consultation program to understand the community's priorities. This resulted in further investigation and modelling of a range of options, and their potential impacts on resource recovery performance and associated cost of disposal.

A range of options were explored and evaluated based on the required economic investment, the potential community support afforded and the environmental benefit offered by each. Disposal alternatives, collection changes, associated educational programs, improvements to existing programs and internal improvements were all considered as part of this process.

The option assessment assisted with the prioritisation of targeted actions and activities. The short-listed actions have been communicated via a 5-year Strategy Action Plan (see Section 5). Implementation of the Strategy will be managed through this evolving Action Plan, which integrates with Council's specific work areas and has focused objectives and activities designed to progress Council and the community towards achievement of the specified Strategy targets.

A variety of activities and opportunities for addressing the challenge of each key focus area are presented in the following section.

## 4. How are we going to get there? (continued)



### 4.1 KEY FOCUS AREA 1: AVOID AND REDUCE WASTE GENERATION

Waste avoidance and reduction of domestic waste across the Cumberland LGA is highly dependent on residents re-thinking and avoiding the generation of waste. Council can help residents achieve this through the use of community education, communication campaigns and other behavioural change initiatives. Using existing data from 2017-18, it has been revealed that Cumberland residents generated approximately 6.1 kilograms of waste per person, per week at the kerbside. This figure is marginally lower than the Western Sydney Regional average.

The success in delivery of this key focus area is considered to depend on four key activities:

**1. Tackling food organic waste** - This is the largest single type of waste (by weight) found in any of the bins provided to residents. Promoting waste avoidance initiatives, such as Council's educational workshops on food preservation and cooking with leftovers, and ideas such as Council's *'Love Your Leftovers'* cook book (which is also available as a mobile app and website) can help residents avoid unnecessary food waste. Supporting home and community composting and worm farm initiatives with low contamination rates can also help to reduce the total quantities of food waste being disposed of to landfill.

**2. Support and promote community waste prevention and re-use organisations** – A number of organisations are already active in this area, and Council aims to harness the capacity and capability of such organisations to provide ensured benefit to the community. The Bower is one such organisation providing a collection and rehoming service for bulky household items. The Bower reports tonnes of items collected and diverted, and the recent addition of a shop front in Parramatta means residents have improved access to reusable goods.

### 3. Targeted education and communications –

The messages of waste avoidance, reduction and re-use are often complicated, can be varied and may not apply to all audiences. Working with schools, faith groups, real estate agencies, new immigrants and settlement agencies as examples, provides an opportunity to tailor educational material to varied needs, maximising the impact of Council's programs through group involvement, and promoting a flow of ideas and messages to family, friends and peers.

**4. Promoting reusable items** – Single-use coffee cups, water bottles and plastic bags are identified as some of the most commonly used items having reusable alternatives. Making a single change to use a reusable cup, bottle or bag has the potential to save significant quantities of waste and litter, in addition to reducing the contamination rate of recycling bins in Cumberland (coffee cups are not currently recyclable and plastic bags are only accepted at specialist collection points). Council's provision and promotion of reusable alternatives is a simple measure that reinforces messaging around a 're-use society' (instead of a 'disposable society') and will establish 'reusable' as the social norm within the community.

Although Council can assist residents to make informed decisions about their waste generation habits, it is ultimately each individual's decision to adopt these practices, which can be influenced by community values.

There are many other ways for residents to avoid waste; these include:

- Not buying items that are heavily packaged, have a short lifespan or are of low quality
- Buying pre-loved or new items that last longer and can be repaired
- Deciding not to upgrade items/products when existing ones still work
- Buying items in refillable containers
- Planning meals and food purchases and using leftovers to minimise food waste
- Composting organic food and garden waste at home
- Providing opportunities for the re-use of items and materials which cannot be recycled
- Raising awareness of problems associated with increasing waste generation levels.



## 4.2 KEY FOCUS AREA 2: INCREASE RECYCLING AND DIVERT MORE WASTE FROM LANDFILL

Improving recycling and overall resource recovery can be influenced in three main ways:

1. Changing the behaviour of residents by providing waste services that promote reduced contamination in the recycling and garden organics bin and increased capture of recyclable materials
2. Improving the range of materials accepted for recycling or extension of the range of waste collection services provided (i.e. extending the provision of a garden organics collection to all residents)
3. Processing of residual waste through Advanced Waste Treatment (AWT) facilities to recover additional resources from this waste stream.

### Harmonising waste and recycling services

Baseline data for the Cumberland LGA, sourced from the three former council datasets, highlight that there are significant differences in resource recovery performance across wards forming the new Cumberland Council LGA. These differences stem from a combination of waste collection and processing contractual differences, in addition to public participation in Council’s programs and services. In this regard, the harmonisation of waste collection contracts and services, coupled with improved communication and education on bin usage, has the potential to improve resource recovery by up to 4% alone.

### Improving waste and recycling education

Clear and focused waste education was identified as a key development area following the formation of Cumberland Council. Building a campaign brand that is informative and balanced (i.e. Council’s ‘Waste in the Right Place’ campaign) provides clear and simple messaging with minimal text. Council, therefore, envisages producing unified and consistent messaging across a range of ‘Waste in the Right Place’ resources, such as print-based materials, posters, bin stickers, postcards, flyers and notification cards, as well as interactive bin swing tags and novelty items for children. Positive messaging and imagery has been used to engage residents.

## 4. How are we going to get there? (continued)

Simple designs are especially helpful for Cumberland's Culturally and Linguistically Diverse (CALD) communities. Images, ticks, crosses and happy and sad emoji faces are easily identifiable without the need for several translations.

### Managing bin contamination

To combat elevated levels of unwanted materials in the recycling and garden organics bins, Council has developed a Contamination Management Plan. The Plan involves routine bin inspections and the use of stickers on highly contaminated bins to help educate residents. The impact of such a program is highly dependent on continued application and long-term resourcing, to keep contamination down, establish social norms and to reduce complacency. In this regard, Council has been using Geographical Information Systems (GIS) to collect and store inspection data, enabling Council to focus on problematic locations and prioritise actions.

### Extending the garden organics services

The roll-out of a garden organics kerbside collection service to former Holroyd residents has the potential to improve resource recovery between 1.2% and 4.4%. This range is dependent on levels of participation by residents and the impact of associated education. Changes to bin capacity (i.e. reducing the size of the red lid bin or increasing the size of the yellow lid bin) have been shown to provide additional incentives for recycling and may present an opportunity for further service refinement in the longer term.

During community consultation undertaken in 2018, focus groups indicated a greater desire for information on the current garden organics drop-off service operating out of the Fairfield Road Depot in Guildford West. Council will, therefore, investigate options for improving and enhancing this service into the future. Although there are capital and operational costs to consider as part of assessing the feasibility of such dedicated drop off sites, they provide flexibility to residents and promote improved resource recovery. It is also considered that these sites could accept a range of recyclable materials that complement the kerbside and clean-up services in the longer term.

### Processing of residual waste at an Advanced Waste Treatment (AWT) facility

Waste data modelling has been undertaken to support the development of the Strategy Action Plan. This modelling indicates that Advanced Waste Treatment (AWT) offers a cost-effective solution for improved resource recovery, increasing the Cumberland LGA's performance from 51% in 2016-17 to 65% in 2022-23. Additional education, contamination management and service improvements are able to deliver reasonable performance, typically between 1% to 4%. Accounting for contractual, operational and social constraints associated with residual and recycling processing, it may be possible for Cumberland to achieve the NSW EPA target of 70% by 2022-23.



Figure 4-1: Examples of Council's 'Waste in the Right Place' Campaign Materials



### 4.3 KEY FOCUS AREA 3: MANAGE HOUSEHOLD PROBLEM WASTE BETTER

Councils have an obligation to provide waste services to residents on both public health and environmental grounds. Problem household wastes can cause harm to human health and the environment if they are managed inappropriately and Councils, therefore, have a responsibility to provide the necessary facilities for residents to ensure that the problem waste are disposed of in an appropriate manner.

#### Problem wastes

Problems wastes such as BBQ/gas bottles, fire extinguishers, paint, light globes, smoke detectors, motor oil and batteries have been highlighted by the NSW EPA for separate collection. In response, Cumberland Council has operated a Mobile Problem Waste Service in collaboration with the City of Parramatta Council since April 2016, which was initially funded by a successful EPA grant from the NSW Government’s ‘Waste Less Recycle More’ grants program.

This service provides a simple book-in collection of problem wastes. In the first 2 years of operation, over 2,500 bookings were made, resulting in the safe collection and disposal of over 85 tonnes of problem waste.

Popularity of the Mobile Community Recycling Service has recently resulted in expansion to accept electronic waste, with other viable options to include additional material types and further outreach to residents also being considered. An integral component of this service are the supporting education materials under the ‘Waste in the Right Place’ campaign, with the message “Don’t waste me, I’ll be crushed!”

#### Asbestos

Asbestos is a significant issue throughout the entire Western Sydney region, and the provision of disposal option is key to combating this problem waste type becoming an illegal dumping issue. It is for this reason that the Cumberland Asbestos Awareness Program was developed to address the potential for illegal disposal of household-generated asbestos, and to improve the health and safety of the local community. In this regard, the service provides residents with a disposal option for small amounts of bonded asbestos of up to ten square metres (10m<sup>2</sup>), whilst also facilitating free information sessions on the identification and safe removal of asbestos by residents undertaking minor renovation work to their home. During the 2016-17 financial year, just under 11 tonnes of asbestos was collected under this program, funded under the NSW Government’s ‘Better Waste & Recycling’ grant program.

#### Clinical Waste

Clinical waste services, primarily addressing the disposal of sharps waste, are offered at a range of participating chemists and in public places throughout the Cumberland LGA. Council will, however, investigate options to expand on these services (both in the number of disposal options available and the range of wastes collected), in partnership with the community and NSW Health.



Figure 4-2: Problem Waste Collection Service Advertisement

## 4. How are we going to get there? (continued)



### 4.4 KEY FOCUS AREA 4: REDUCE ILLEGAL DUMPING AND LITTERING AND ENSURE CLEANLINESS

Littering and the illegal dumping of waste in public places affects the whole community, causing hazards to residents, impacting on public health and amenity, and reducing civic pride in an area. The dumping of household waste also results in significant ongoing financial impacts for Council and the community, given the additional investigation and clean-up resources required. Social research has indicated that Cumberland residents are somewhat tolerant to litter and illegal dumping, as these irresponsible activities have historically taken place. Council programs are, therefore, focused both on improvements to the cleanliness of public places and to increase the expectations of the community. Council is committed to improving the general level of street cleanliness and working with residents to foster a sense of community ownership and pride in the local environment.

#### Littering

Littering is recognised as a State-wide issue. The NSW EPA has targeted litter through the 'Don't be a Tosser' education campaign and regulatory interventions, such as the NSW Container Deposit Scheme launched in late 2017. At a local level, Council will develop a 'Public Place Cleansing Action Plan' to address littering, which contains the following actions:

- Reviewing and improving public place litter collection infrastructure
- Maintaining clean public places to discourage littering
- Hotspot identification for targeted actions and monitoring the impact of change
- Education and awareness raising to build community pride in places.

#### Public Place Cleansing

Street cleaning can immediately improve the amenity and appeal of a public area. Maintaining clean public places can contribute to community pride in the local environment and increase the sense in the community that Cumberland is a great place to live.

The 'Public Place Cleansing Action Plan' will address clean public places under the following actions:

- Reviewing and undertaking a needs assessment of cleansing operations
- Enhancing capacity of the street-cleaning program with additional resources
- Maintaining areas based on the principle that clean attracts clean.

#### Illegal dumping

Illegal dumping of domestic waste often includes hazardous substances such as asbestos and household bulky wastes, as well as incidences of construction and demolition wastes (including contaminated soils and garden organics). As illegal dumping of waste has been identified as a prominent issue in the Cumberland LGA, Council will develop a dedicated 'Illegal Dumping Management Action Plan' that coordinates both local activity and regional action, delivered through the Western Sydney Regional Illegal Dumping (RID) Squad.

The approach to combating illegal dumping combines education and enforcement in several key ways:

- Promoting existing waste services to residents to avoid illegal dumping at the source
- Raising the awareness of illegal dumping and asking residents to report instances
- Undertaking strategic enforcement in collaboration with the RID Squad
- Building an evidence base to help direct and prioritise action against illegal dumping.

The new on-call clean up collection service, available to all residents across the LGA, provides a free, convenient and legal alternative to illegal dumping. Supporting the community to use this service is a key response to dumping of unwanted household items on the kerbside.



Figure 4-3: Illegal Dumping Stickers



## 4.5 KEY FOCUS AREA 5: LEAD BY EXAMPLE

Emerging challenges in the waste management and resource recovery sector require Council to be more proactive with service improvements and adaptive to market and technology changes. Waste services are affected by many external factors over which Council may have direct, indirect or no influence. External factors include:

- Types of development or dwellings (specifically high density)
- Types of waste materials generated
- Community expectations
- Changes to consumer behaviour
- Impact of regulatory change and market forces on existing and future contracts.

Council aims to establish a more robust and agile waste service that can forecast and adjust to future changes whilst improving service standards year on year. Council will also look to expand on the existing knowledge base through collaboration with academic institutions, and explore innovative resource recovery technology as a proactive approach to future waste management reviews. However, these actions need

to be underpinned by clear policies and procedures to manage waste services, as well as targeted data collection, interpretation and reporting to identify and implement effective change measures.

Council embraces cultural diversity across the LGA and recognises the need for tailored and targeted action to support the 'Waste in the Right Place' education program. Spatial data collection and analysis using GIS is being used to ensure the impact of this work.

To assist with internal governance and community transparency of all waste services and initiatives, a 'Waste Management Services Charter' will be introduced. The charter will communicate Council's waste management responsibilities to the community, including timely responses to waste related services and illegal dumping.

Council has a responsibility to set an example to the community and residents by leading the charge for improved recycling and resource recovery, in the move towards a circular economy. As one of the LGA's largest employers and consumer of goods and services, Council is committed to:

- Implementing an internal waste management program across all Council facilities
- Developing a Sustainable Procurement Framework for implementation during this strategy cycle
- Supporting the development of a sustainable event procedures guideline.

To assist with monitoring and evaluating the impact of these measures, Council will seek feedback through internal staff and external stakeholder and community surveys.

## 4. How are we going to get there? (continued)



### 4.6 KEY FOCUS AREA 6: IMPROVE COUNCIL'S WASTE PROFILE IN THE COMMUNITY

Community consultation revealed that residents want to know more about the waste management services provided in Cumberland and what community-wide benefits result from their efforts. With the delivery of a complex multi-million-dollar service, it is often easy to lose sight of the long standing question “Why are we doing this?”

Improving Council’s waste profile comprises of two distinct components:

- Effective communication of all waste services
- Visibility of waste management performance.

Council’s ‘Waste in the Right Place’ campaign establishes a communication baseline for simple and consistent messaging across all waste services.

This messaging can be enhanced through widespread dissemination using multiple communication and publication channels and leveraging from existing council media outlets, such as Council’s website, e-mail, social media accounts and postal communications. Council will also attach messaging via a range of new communication avenues, including billboards, vehicle wrapping and signage, banner adverts and street decorations.

Active engagement through Council and community events will form a new action under this key focus area of the Strategy, and will be used to test new messaging and evaluate the impact of communication measures already taken by Council. Outreach to Culturally and Linguistically Diverse (CALD) communities, social housing, and strata groups provides another dimension to the communication plan; by tailoring and enhancing training materials to specific groups, stronger opportunities to facilitate information sharing emerge.

Providing information on the community’s performance across all key focus areas of the Strategy will become the basis for empowering residents and building community pride in public places. Council will explore and use a range of opportunities to promote the benefits of behaviour change and celebrate community achievements, which may include the use of infographics, news releases and multimedia resources.





## 5. How will the Strategy be implemented?

The six key focus areas identified in this Strategy will underpin its successful implementation. By working with the community and for the community, Council will accomplish the Vision and achieve the Objectives within this Strategy. The provision and implementation of cost-effective waste management is important and all future changes will seek to address the social, economic and environmental needs of the region.

### 5.1 MONITORING, REPORTING AND REVIEW

Measurement and monitoring against each key focus area will be undertaken on an on-going basis and reported as per internal Council timeframes. See Section 3.3 for a list of metrics against which data will be measured and reported.

The implementation of the actions in the Strategy Action Plan will be reported to Council on an annual basis, as will waste data required by the NSW EPA. A review and re-prioritisation of remaining actions will be undertaken at the time of this annual review, to adapt the Action Plan to take into account relevant funding opportunities, changing legislation or relevant conclusions from previous studies. The Action Plan will remain flexible to meet the changing needs of the Council over the life of the Strategy.

### 5.2 ACTION PLAN

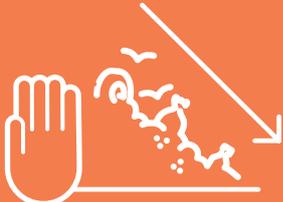
The Strategy Action Plan has been developed by Council to deliver on the Strategy Objectives and Targets. Actions are detailed by key focus area, and ordered in terms of priority. Timeframes for implementation are also shown.

## 5. How will the Strategy be implemented? (continued)

### Timeframe Legend:

 Action Commencement

 Action Duration

<b>KEY FOCUS AREA 1:</b> <b>Avoid and reduce waste generation</b> 				
Objectives	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community's understanding and engagement with waste avoidance and reduction practices</li> <li>To increase the range of options available for the community to avoid, reduce and re-use their waste</li> </ul>			
	Targets	1. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline		
2. Increase the number of options available for the community to avoid, reduce and re-use their waste by 2022-23 compared to a 2016-17 baseline				
3. Reduce overall waste generation per capita by 2022-23 compared to a 2016-17 baseline				
Actions		Timeframe		
		Yr 1	Yrs 2-3	Yrs 4-5
KFA 1.1	Support and promote community waste prevention and re-use organisations			
KFA 1.2	Assist schools, childcare centers and business to adopt waste avoidance and reduction practices through innovative education programs			
KFA 1.3	Undertake a feasibility study to guide a potential food donation program			
KFA 1.4	Promote 'Love Your Leftovers' cook book, mobile application and website and seek funding to create a new edition			
KFA 1.5	Develop a food and garden organics waste avoidance incentive program			
KFA 1.6	Distribute reusable items such as bags, water bottles, and coffee cups to residents at community events and select locations			
KFA 1.7	Facilitate food waste avoidance and reduction workshops			

## KEY FOCUS AREA 2: Increase recycling and divert more waste from landfill



<b>Objectives</b>	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community's understanding and engagement with recycling and diversion from landfill</li> </ul>			
	<ul style="list-style-type: none"> <li>To increase the range of options available for the community to recycle their waste</li> </ul>			
	<ul style="list-style-type: none"> <li>To improve recycling rates and reduce bin contamination</li> </ul>			
<b>Targets</b>	1. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline			
	2. Increase the number of options available for the community to recycle their waste by 2022-23 compared to a 2016-17 baseline			
	3. Work towards a domestic waste and resource recovery rate of 70% by 2022-23			
	4. Reduce bin contamination year on year			
<b>Actions</b>		<b>Timeframe</b>		
		<b>Yr 1</b>	<b>Yrs 2-3</b>	<b>Yrs 4-5</b>
KFA 2.1	Develop a business case for dedicated resource recovery officer(s) to undertake the Bin Inspection Program			
KFA 2.2	Evaluate the continuation and/or enhancement of the Garden Organics Free Drop-off Service			
KFA 2.3	Develop education programs targeting the most common contaminants found in the recycling and garden organic kerbside streams			
KFA 2.4	Implement the roll-out of garden organics bin collection service			
KFA 2.5	Investigate the viability and potential benefits of a combined food and garden organics kerbside bin service			
KFA 2.6	Assist schools and child care centres to adopt recycling practices and reduce contamination through innovative school education programs			
KFA 2.7	Investigate opportunities for better practice management of waste from multi-unit dwellings and residential flat buildings			
KFA 2.8	Assess and determine the impact of providing additional recycling bin capacity to the community			
KFA 2.9	Explore the viability of a drop-off site within the LGA to target bulky wastes			
KFA 2.10	Implement the Contamination Management Plan to enforce correct use of bins			
KFA 2.11	Council will examine options for advanced waste treatment for future waste disposal contracts			
KFA 2.12	Work with local business to improve waste management practices including recycling and composting of food waste options.			

## 5. How will the Strategy be implemented? (continued)

<b>KEY FOCUS AREA 3:</b> <b>Manage household problem waste better</b>				
<b>Objectives</b>	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community's understanding and engagement with household problem waste</li> <li>To increase the range of options available for the community to responsibly dispose of their household problem waste</li> </ul>			
<b>Targets</b>	1. Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline			
	2. Increase the number of options available for the community to responsibly dispose of their household problem waste by 2022-23 compared to a 2016-17 baseline			
	3. Increase the number of household problem waste bookings by 2022-23 compared to a 2016-17 baseline			
<b>Actions</b>		<b>Timeframe</b>		
		<b>Yr 1</b>	<b>Yrs 2-3</b>	<b>Yrs 4-5</b>
KFA 3.1	Develop and deliver innovative programs to increase asbestos awareness and collections			
KFA 3.2	Explore opportunities to further capture household problem waste			
KFA 3.3	Investigate the opportunity to establish a permanent problem waste mobile collection service			
KFA 3.4	Investigate the opportunity to ensure the clinical waste drop-off service			



## KEY FOCUS AREA 4: Reduce illegal dumping and littering and ensure cleanliness



Objectives	<ul style="list-style-type: none"> <li>To develop and deliver initiatives to increase the community's understanding and engagement on the impacts of illegal dumping and littering</li> <li>To develop and implement an Illegal Dumping Management Action Plan to reduce the incidence of illegal dumping</li> <li>To develop and implement a Public Place Cleansing Action Plan to improve street cleanliness and reduce littering</li> </ul>			
	<ol style="list-style-type: none"> <li>Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>Decrease the number of illegal dumping incidences at defined hot spots by 2020-21 compared to a 2016-17 baseline</li> <li>Increase community satisfaction scores for the cleanliness of urban and open areas by 2020-21 compared to a 2016-17 baseline</li> </ol>			
Actions	Timeframe			
	Yr 1	Yrs 2-3	Yrs 4-5	
KFA 4.1	Investigate the use of infrastructure to reduce opportunities for illegal dumping			
KFA 4.2	Ensure capacity of the existing street-cleaning program with additional staff resources to maintain areas based on the principle that clean attracts clean			
KFA 4.3	Partner with community organisations and sporting clubs to support litter-free events and activities			
KFA 4.4	Contribute to reduction of illegal dumping through promotion of free Council clean up services of bulky household wastes			
KFA 4.5	Monitor and conduct trials on littering in premium parks and public places to inform location and fit-for-purpose infrastructure			
KFA 4.6	Undertake a service review of current cleansing operations			
KFA 4.7	Undertake a needs assessment and review of public litter bins to ensure value for money and effective cleansing services			
KFA 4.8	Build an evidence base to help direct and prioritise action against illegal dumping			
KFA 4.9	Undertake strategic enforcement of public hot spots in collaboration with the RID Squad			
KFA 4.10	Contribute to a reduction in littering and graffiti through proactive campaigns and awareness raising			

## 5. How will the Strategy be implemented? (continued)

KEY FOCUS AREA 5: Lead by example						
<b>Objectives</b>	<ul style="list-style-type: none"> <li>To improve waste collection service standards, waste planning and design guidelines</li> </ul>					
	<ul style="list-style-type: none"> <li>To provide the community with a clear understanding of the waste and resource recovery services provided by Council</li> </ul>					
	<ul style="list-style-type: none"> <li>To establish data management and information technology systems</li> </ul>					
	<ul style="list-style-type: none"> <li>To increase internal waste avoidance and recycling across all Council facilities</li> </ul>					
	<ul style="list-style-type: none"> <li>To incorporate circular economy principles to encourage innovation and stimulate new markets</li> </ul>					
<b>Targets</b>	1. Deliver a fit-for-purpose data collection and reporting system to improve waste data tracking by 2022-23					
	2. Increase the organisation's awareness of waste and resource recovery services as indicated through internal surveys by 2020-21 compared to a 2016-17 baseline					
	3. Year on year improvement in service standards addressing waste planning and design					
	4. Develop effective methods that drive the uptake of circular economy principles in consultation with industry					
<b>Actions</b>				<b>Timeframe</b>		
				<b>Yr 1</b>	<b>Yrs 2-3</b>	<b>Yrs 4-5</b>
KFA 5.1	Harmonise three (3) former waste development control plans into one (1) combined interim waste development control guideline					
KFA 5.2	Implement an internal waste management program across all Council facilities					
KFA 5.3	Work with nearby councils on joint waste and recycling contracts					
KFA 5.4	Apply Geographical Information System (GIS) technology where suitable to capture, analyse and report on waste and resource recovery data from various projects and programs					
KFA 5.5	Develop and implement a Waste Management Policy					
KFA 5.6	Support the development of a sustainable event procedures guideline to incorporate circular economy principles					
KFA 5.7	Support and participate in regional projects as per the WSROC Strategy timeline					
KFA 5.8	Develop and implement a Sustainable Procurement Framework to support the transition to a circular economy					
KFA 5.9	Integrate data collection and reporting processes with Council's new database system (TechnologyOne)					
KFA 5.10	Council will, as far as practicable, eliminate its use of disposable plastic water bottles, cups and bags					



## KEY FOCUS AREA 5 CONTINUED: Lead by example



KFA 5.11	Council will, where necessary, ensure its community is consulted on any new initiatives that come out of the Strategy			
KFA 5.12	Council will strive to ensure sustainable development			

## KEY FOCUS AREA 6: Improve Council's waste profile in the community



<b>Objectives</b>	<ul style="list-style-type: none"> <li>To increase awareness and recognition of Council's waste and resource recovery services</li> <li>To provide transparency around Council's waste and resource recovery performance</li> </ul>			
	<ol style="list-style-type: none"> <li>Increase community recognition of Council services and the importance of recycling correctly as indicated through annual survey</li> <li>Increase the number of community engagement activities by 2022-23 compared to a 2016-17 baseline</li> <li>Make waste and resource recovery performance and survey results accessible to the community by 2020-21</li> <li>Ensure online access to information and resources on waste and resource recovery services by 2018-19</li> </ol>			
<b>Actions</b>		<b>Timeframe</b>		
		<b>Yr 1</b>	<b>Yrs 2-3</b>	<b>Yrs 4-5</b>
KFA 6.1	Attend community events to increase promotion of Council services and exposure to the 'Waste in the Right Place' campaign			
KFA 6.2	Inform and engage the community on waste and resource recovery services and associated environmental impacts through Council's 'Waste in the Right Place' campaign			
KFA 6.3	Develop further opportunities for information sharing and education for individuals, community groups, housing groups, and service providers			
KFA 6.4	Promote 'Waste in the Right Place' signage in suitable locations			

# Appendix A. Glossary of Terms

<b>ALTERNATIVE WASTE TREATMENT (AWT)</b>	Generally, a facility that applies a combination of mechanical, biological and (sometimes) thermal processes to separate organic materials from a mixed residual waste stream (usually household waste).
<b>CAPTURE RATE</b>	The proportion of material captured for re-use, recycling or recovery (including composting or energy recovery).
<b>CONSTRUCTION AND DEMOLITION (C&amp;D) WASTE</b>	Solid waste sourced from construction and demolition works, including building and demolition waste, asphalt waste and excavated natural material.
<b>COMMERCIAL AND INDUSTRIAL (C&amp;I) WASTE</b>	Solid waste generated by businesses, industries (including shopping centres, restaurants and offices) and institutions (such as schools, hospitals and government offices) but not C&D waste or MSW.
<b>CO-MINGLED RECYCLING</b>	See definition for 'dry recycling'.
<b>DIVERSION</b>	Waste diverted from landfill (either through re-use or recovery at an Advanced Waste Treatment (AWT) facility, organics processing facility, or Energy from Waste facility).
<b>DOMESTIC WASTE</b>	All waste generated by households, which includes residual waste, co-mingled recyclables and food and garden organics, that councils collect and receive from households. Council services include kerbside bin collections, kerbside clean-up collections, and household drop-off facilities/mobile services.
<b>DRY RECYCLING</b>	Recyclable materials such as containers (plastic and glass bottles, metal cans), paper and cardboard collected for recycling. Also referred to as 'co-mingled recycling'. (Note: the type of materials collected can vary due to facility processing limitations and external market factors.)
<b>ENERGY FROM WASTE (EFW)</b>	The process of recovering energy from residual waste materials that would normally be disposed of to landfill. The energy recovered is used to produce heat, steam, electricity or a combination of these outputs.
<b>ELECTRONIC WASTE (E-WASTE)</b>	End-of-life electronic equipment, such as televisions, computers, mobile phones, stereos and small electrical appliances (but not white goods).
<b>GARBAGE</b>	See definition for 'residual waste'.

<b>GREEN LID BIN</b>	Refers to the Australian Standard (AS 4123.7-2006 mobile waste containers, bin lid colours for household kerbside waste and recycling bins). The green lid bin is used for the disposal of garden organic materials, including grass clippings, flowers, leaves, prunings and small branches. (Note: The green lid bin may also be used for placement of compostable bags of food waste depending on Council's service type, access to an appropriate facility capable of processing food waste, and the availability of downstream markets for the processed materials.)
<b>LANDFILL</b>	The disposal of waste materials through burial. Modern landfill sites are engineered, lined and fitted with gas capture systems to minimise environmental impact.
<b>MATERIALS RECOVERY FACILITY (MRF)</b>	A materials recovery facility handles a range of recyclables which typically have already been separated from other waste streams (e.g. by householders or businesses at the collection stage). At the MRF, materials input into the co-mingled recycling bin (yellow lid bin) are sorted into individual material streams before being sent for recycling. Any components of the incoming material not suitable for recycling will be separated as 'contaminants' at the MRF and will generally be sent to landfill.
<b>MUNICIPAL SOLID WASTE (MSW)</b>	Solid waste from households and local government operations, including waste placed at the kerbside for local council collection and waste collected by councils from municipal parks and gardens, street sweepings, council engineering works and public council bins. This also includes self-haul waste dropped off by residents to either council facilities or at council events.
<b>PROBLEM WASTE</b>	Household products and materials in the waste and recycling stream that pose potential harm to the environment and human health and/or make the recovery and recycling of other materials more difficult or uneconomic.
<b>RECYCLING</b>	Recycling involves the collection, sorting and processing of materials presented for recycling by residents at their kerbside or in public place bins. Materials sorted at a MRF are used in the creation of new recyclable products.
<b>RECYCLING RATE</b>	The proportion of all recycled materials compared to the total amount of waste generated – this includes outputs generated by the processing of residual waste via an Advanced Waste Treatment (AWT) facility but does not include energy from waste (EfW) processing.
<b>RED LID BIN</b>	Refers to the Australian Standard (AS 4123.7-2006 mobile waste containers, bin lid colours for household kerbside waste and recycling bins). The red lid bin is used for the deposit of residual waste.
<b>REDUCING WASTE</b>	Reducing waste generation by avoiding or preventing the creation of waste, where possible, along the various parts of the supply chain. The aim is to use less material to achieve the same or equivalent outcome.
<b>REFUSE DERIVED FUEL (RDF)</b>	Waste with a recoverable calorific value or energy content that has been processed into a format suitable for use as a fuel that can replace a portion of conventional fossil fuels, such as coal, in cement kilns and other industrial processes.

## Appendix A. Glossary of Terms (continued)

<b>RESIDUAL WASTE</b>	Any waste that is disposed of in the red lid bin. Residual waste should not include recyclable, compostable or reusable materials. Also referred to as 'garbage'.
<b>RESOURCE RECOVERY RATE</b>	The proportion of materials which are re-used, recycled and diverted from landfill compared to the total amount of waste generated, including energy from waste (EfW) processing.
<b>RE-USE</b>	Items that are in a suitable condition and quality to be re-used in its original form.
<b>SOLID WASTE</b>	Unwanted solid materials; does not include liquid waste.
<b>WASTE</b>	<p>Includes (as defined by the <i>NSW Protection of the Environment Operations Act 1997</i>):</p> <ul style="list-style-type: none"> <li>• any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or</li> <li>• any discarded, rejected, unwanted, surplus or abandoned substance, or</li> <li>• any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or</li> <li>• any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or</li> <li>• any substance prescribed by the regulations to be waste.</li> </ul> <p>A substance is not precluded from being waste for the purposes of this Act merely because it is or may be processed, recycled, re-used or recovered.</p>
<b>WASTE AVOIDANCE</b>	Any measure undertaken to mitigate the generation of waste. For example, avoiding food waste through improved meal planning.
<b>WASTE GENERATION</b>	The total amount of waste disposed of to landfill and diverted from landfill (based on available data).
<b>WASTE MANAGEMENT SYSTEM</b>	Waste Generation = amount of waste sent to landfill + amount of waste diverted (i.e. total amount re-used, recycled and recovered).
<b>YELLOW LID BIN</b>	Refers to the Australian Standard (AS 4123.7-2006 mobile waste containers, bin lid colours for household kerbside waste and recycling bins). The yellow lid bin is used for the disposal of dry recyclable materials (or co-mingled recycling). Dry recyclable materials generally include paper, cardboard, glass, some hard plastics, and ferrous and non-ferrous metals. The type of recyclable materials collected in the yellow lid bin can vary, depending on the facility that Council has access to for further separation of materials and any contamination, and the availability of downstream markets for the materials.



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