CURRENT WASTE SERVICE ANALYSIS

(including Community Survey (May 2019) Results)
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Acronyms:

CWMC  Cessnock Waste Management Centre
DWMC  Domestic Waste Management Charge
EPA  Environment Protection Authority
FOGO  Food Organics Garden Organics
GO  Garden Organics
LGA  Local Government Area
1. Background

The Cessnock Waste Management Strategy 2014-2019 is being reviewed. During the last 5 years there have been many changes to waste services including:

- Introduction of garden organics kerbside collection
- Opening of transfer station at Cessnock Waste Management Centre

The objective of the Cessnock Waste and Resource Recovery Strategy 2020-25 is to build on the achievements of the 2014-19 Strategy and provide a clear direction for the management of waste during the next five year period and a pathway for the future.

The development of the 2020-25 Strategy included:

- A Waste Strategy Options Report providing a high-level review of Cessnock’s waste services and infrastructure and benchmarking of key services with comparable councils. The report considers Council’s current waste management systems and identifies a range of strategic options and recommendations to improve the sustainability of Council’s waste management system.
- A community survey 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 (i.e. vouchers or kerbside pickup) preferences.
  - Including food in the garden organics bin.
  - Household waste collection post food being added to the organics bin.
  - Cessnock Waste Management Centre services for the community.
  - Illegal dumping.

This report summarises the responses received to the May 2019 community survey as well as details of previous community surveys (on waste services and Council customer services) and the conclusions that can be drawn. The survey process undertaken was optional and as such there is likely to be a degree of self-selection bias in the results as respondents may have chosen to complete the survey because they have strong views on the topic one way or the other.

![The *Average Cessnock Bin](image_url)

*Figure 1: The Average Household Bin*
2. Average Household Bin

Waste and recycling bin audits have been undertaken to assist Council in the collection of data and to determine if waste services are meeting the requirements of our community. The results allow Council to assess progress towards waste to landfill reduction targets (in line with our adopted Waste Strategy and the NSW EPA targets). The bin audits also measure the viability of the service, suggest future improvement strategies and identify for improvement.

Waste bins audits have been conducted in 2008, 2011, 2014, 2016 and 2017. The most recent bin audits included the following services:

- October 2016 (waste & recycling)
- October 2017 (waste, recycling & garden organics)

Audits were deliberately undertaken six months before and six months after commencement of the garden organics kerbside collection service to measure the impact of the new service on the diversion rate from landfill.

Key points from the 2017 audit compared to the 2016 audit were:

- Waste bin contents decreased 2.15kg/hh/wk.
- 90% garden organics diverted from landfill.

Table 1: Summary Results Kerbside Bin Audits

<table>
<thead>
<tr>
<th>Indicator (Unit of Measurement)</th>
<th>Bin</th>
<th>Result</th>
<th>October 2016</th>
<th>October 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bin Presentation Rate (ie. % households putting bins out for collection)</td>
<td>Waste</td>
<td>82.7%</td>
<td>85.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recycling</td>
<td>74.1%</td>
<td>82.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>-</td>
<td>54.2%</td>
<td></td>
</tr>
<tr>
<td>Weight of bin presented (kg/hh/wk)</td>
<td>Waste</td>
<td>15.23</td>
<td>13.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recycling</td>
<td>5.28</td>
<td>4.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>-</td>
<td>8.64</td>
<td></td>
</tr>
<tr>
<td>Volume of bin used (% full)</td>
<td>Waste</td>
<td>69.05</td>
<td>59.51</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recycling</td>
<td>76.91</td>
<td>72.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>-</td>
<td>66.49</td>
<td></td>
</tr>
<tr>
<td>Unrecovered material in waste bin (kg/hh/wk and % waste bin by kg)</td>
<td>Recycling</td>
<td>2.77kg/18.22%</td>
<td>2.07kg/15.85%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>7.93kg/52.04%</td>
<td>6.41kg/49.01%</td>
<td></td>
</tr>
<tr>
<td>Contamination rate (kg/hh/wk and % waste bin by kg)</td>
<td>Recycling</td>
<td>0.31kg/5.88%</td>
<td>0.39kg/8.12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>-</td>
<td>0.09kg/1.07%</td>
<td></td>
</tr>
<tr>
<td>Resource recovery rate at kerbside (% by kg)</td>
<td>Recycling</td>
<td>63.01</td>
<td>66.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garden Organics</td>
<td>-</td>
<td>90.22</td>
<td></td>
</tr>
<tr>
<td>Diversion from landfill rate at kerbside (% by kg)</td>
<td>All Bins</td>
<td>23.05</td>
<td>48.32</td>
<td></td>
</tr>
</tbody>
</table>

This data has allowed the generation of an infographic (see figure 1) depicting the average household bin.
3. Waste Survey Promotion

A multi-faceted approach to promoting the survey was undertaken and is summarised in table 2.

Table 2: Survey Promotion Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Details</th>
<th>Comments/Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flyer</td>
<td>~23,000 flyers delivered by Australia Post to every household in Cessnock LGA.</td>
<td></td>
</tr>
<tr>
<td>Manned displays</td>
<td>Tuesday 7 May: 11am – 1pm at Crawford-Millfield Community Hall 4pm – 6pm at Cessnock Library</td>
<td>0 attendees</td>
</tr>
<tr>
<td></td>
<td>Tuesday 21 May : 11am – 1pm at Branxton Community Hall 4pm – 6pm at Kurri Kurri Library</td>
<td>5 attendees / 5 attendees / 10 attendees</td>
</tr>
<tr>
<td>Cessnock Advertiser paid</td>
<td>24 April (page 11) – survey is open with details of how to complete</td>
<td>In addition there was:</td>
</tr>
<tr>
<td>advertisements</td>
<td>1 May (page 14) – Come and see us with all 4 drop-in session dates, times and locations.</td>
<td>Editorial on 15 May (page 12) in Mayors Column with dates for next 2 drop-in sessions.</td>
</tr>
<tr>
<td></td>
<td>8 May (page 12) – survey is open with details of how to complete</td>
<td>Media release published 29 May (page 5) encouraging residents to complete the survey and providing information on NSW EPA Waste Levy.</td>
</tr>
<tr>
<td></td>
<td>15 May (page 2) – Come and see us with all 4 drop-in session dates, times and locations.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 May (page 8) – survey is open with details of how to complete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28 May (page 9) – survey closing 29 May.</td>
<td></td>
</tr>
<tr>
<td>Greta- Branxton News 15 May</td>
<td>Page 2 – editorial with banner encouraging residents to complete the survey and promoting local drop-in session on 21 May. page 5 - paid ad with drop-in session dates and locations for 21 May Page 6 – Mayors column item</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posters:</td>
<td>In shops at Branxton and Kurri Kurri plus both libraries.</td>
<td>Promoting the drop-in sessions.</td>
</tr>
<tr>
<td>Facebook posts</td>
<td>5 May promoting the 7 May drop-in sessions and survey link.</td>
<td>31 comments / 13 shares.</td>
</tr>
<tr>
<td></td>
<td>9 May promoting the survey link.</td>
<td>33 comments / 32 shares.</td>
</tr>
<tr>
<td></td>
<td>19 May promoting the 21 May drop-in sessions and survey link.</td>
<td>9 comments / 8 shares.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total of 2,936 people reached.</td>
</tr>
<tr>
<td>Website page</td>
<td>Reasons for holding the survey and link to online version to complete.</td>
<td>2,694 views with 1,160 being unique.</td>
</tr>
<tr>
<td>Direct invitation</td>
<td>Email to Environment List:</td>
<td>Details included in Sustainability Events and Opportunities email for May/June 2019 sent on 6 May to over 500 emails.</td>
</tr>
</tbody>
</table>
4. Survey Respondents

A total of 957 surveys were completed. Details of suburb, household size and tenure, age and length of time in the LGA were gathered for respondents and compared to 2016 census data to assess any biases in the data. In general, survey respondents:

- Were a similar distribution for suburb of residence (figure 2).
- Had a slight bias towards:
  - Owners over renters given that 64.5% of LGA are owners compared to 82.8% of survey respondents (figure 4).
  - Larger households with 58.8% of LGA being 1-2 person (smaller) households compared to only 43.7% of survey respondents (figure 5).
  - Younger (under 45) respondents (figure 6).

Figure 2: Survey respondents by suburb

Length of time in the LGA (figure 3) can be used to consider the impact of changes in services noting that:

- The garden organics kerbside collection service commenced in March 2017.

Where residents have moved from may also influence their responses and behaviours. For example, those that have been in the LGA less than 12 months would view the current waste services as normal as they haven’t experienced the previous system but will compare it with their previous service. e.g. “This council is at least a decade behind Wyong who have had green bins since around 2000 and up to 6 kerbside collections per household per annum for at least fifteen years.”

It is useful to note that census data shows “between 2011 and 2016, the LGA with the highest net migration to Cessnock (+852) was from Lake Macquarie.” Given that Lake Macquarie have recently made significant changes to their kerbside services resulting in extensive media coverage of their community’s dissatisfaction, comments directly relating to this and not wanting Cessnock to follow suit could be expected.
Conversely, those that have resided in the LGA longer than 5 years have experienced the greatest number of service changes and may be ‘change-weary’.

**Figure 4**: Household tenure of respondents

**Figure 5**: Household size of respondents

**Figure 6**: Age of respondents
5. NSW Waste Levy

One of the NSW Government’s key priority actions is to increase recycling to limit the need for new landfills, reduce landfill disposal and turn waste into valuable resources. The Government has a range of policies in place to increase recycling and divert valuable resources from landfill back into the economy. The key economic instrument for greater waste avoidance and resource recovery is the waste levy which is increased annually (see table 3).

The waste levy is paid on all waste received at EPA-licensed landfills in the regulated area (i.e. Cessnock Waste Management Centre). In 2017-18, this Levy totalled approximately $8 million dollars for Cessnock Council. The Waste Levy paid in 2018-19 dropped to $5.5 million with savings achieved through operational changes at the Waste Management Centre (WMC).

Only 46% of respondents were aware of the Waste Levy (see figure 7).

Table 3: Annual NSW waste levy rates:

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Levy Rate (per tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-20</td>
<td>$143.60</td>
</tr>
<tr>
<td>2018-19</td>
<td>$141.20</td>
</tr>
<tr>
<td>2017-18</td>
<td>$138.20</td>
</tr>
<tr>
<td>2016-17</td>
<td>$135.70</td>
</tr>
<tr>
<td>2015-16</td>
<td>$133.10</td>
</tr>
<tr>
<td>2014-15</td>
<td>$120.90</td>
</tr>
<tr>
<td>2013-14</td>
<td>$107.80</td>
</tr>
<tr>
<td>2012-13</td>
<td>$93.00</td>
</tr>
<tr>
<td>2011-12</td>
<td>$78.60</td>
</tr>
<tr>
<td>2010-11</td>
<td>$65.30</td>
</tr>
<tr>
<td>2009-10</td>
<td>$52.40</td>
</tr>
</tbody>
</table>

Figure 7: Respondent awareness of NSW waste levy
6. Bulk waste services

The provision of household bulk waste services has been a topic of diversion in the community for many years. Cessnock moved away from a scheduled (suburb by suburb) bulk waste kerbside collection over 20 years ago and issued vouchers to owners as an alternative replacement. The purpose of the bulk waste vouchers is to allow residents to appropriately and cost effectively manage bulk waste. The voucher system also seeks:

- To promote a clean and healthy community.
- To reduce illegal dumping.

In 2015, Council requested tenders to provide an ‘at call’ kerbside bulk collection. Council determined the tender responses as too expensive.

Currently ratepayers who are levied with the Domestic Waste Management Charge (DWMC) receive four vouchers per year. Each of these vouchers allow up to 500kg of waste material to be disposed free of charge at the CWMC. The vouchers apply to domestic household waste only and cannot be used for special waste items such as asbestos, tyres or mattresses.

Whilst popular with residents, issues with the management and use of vouchers have been identified as:

- not encouraging waste minimisation or separation of recyclable materials,
- giving a false perception that waste disposal is ‘free’,
- have involved some misuse with some vouchers being sold, traded or used for commercial waste, and
- involve cost sharing which may be inequitable.

6.1 2010 Bulk Waste Survey:

In 2010 a simple survey was conducted concerning bulk waste services (see figure 8). 85% of the 730 responses received wanted to retain the voucher system. The advantages indicated by residents who prefer the waste voucher system focused on the opportunity to make the decision to utilise the vouchers at will, meaning freedom of choice rather than a collection on prescribed day and time period. Many sighted the nature of shift work and extended work hours as factors that could restrict participation in a kerbside collection. However, they also commented that those who are disadvantaged (either by age, vehicle or driving ability) would prefer a kerbside collection.

Figure 8: 2010 Bulk Waste Survey

Supporters of the voucher system viewed the return to a bulky collection as a backward step. These residents referred to the previous system as being unsightly, often vandalised or pilfered prior to collection and giving a poor aesthetic presentation of the town to both residents and visitors. This response reflected residents pride in the area and not wanting visitors (tourists) to
have a poor perception of the area. This position was supported by numerous volunteer groups that participate in Councils Adopt-a-Road program and participation in events such as Clean up Australia Day. It was feared that the introduction of a bulky collection service would increase windblown litter resulting in this volunteer participation being withdrawn.

Respondents that preferred a kerbside bulky collection service sighted the following reasons:

- Convenient for those that do not have vehicles, trailers or licences to transport waste themselves.
- More useful/ accessible for the elderly and disabled (who may also be affected by the above).
- May help alleviate illegal dumping.
- Provide services to rented properties who do not regularly receive vouchers.

### 6.2 Bulk Waste Voucher Usage:

In 2018-19:

- 52% of households didn’t use any of their vouchers.
- 63% of vouchers were used for the disposal of mixed waste.

**Table 4: Historical usage of vouchers**

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>No. voucher transactions</th>
<th>Voucher usage (%)</th>
<th>Ave. weight per trans (kg)</th>
<th>Total waste (tonnes)</th>
<th>Total value waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14</td>
<td>32,197</td>
<td>40</td>
<td>222</td>
<td>7,175</td>
<td>$2,014,798</td>
</tr>
<tr>
<td>2014-15</td>
<td>31,857</td>
<td>39</td>
<td>220</td>
<td>7,013</td>
<td>$1,988,274</td>
</tr>
<tr>
<td>2015-16</td>
<td>34,559</td>
<td>42</td>
<td>225</td>
<td>7,763</td>
<td>$2,369,739</td>
</tr>
<tr>
<td>2016-17</td>
<td>44,667</td>
<td>53</td>
<td>220</td>
<td>9,014</td>
<td>$2,464,884</td>
</tr>
<tr>
<td>2017-18*</td>
<td>32,768</td>
<td>39</td>
<td>245</td>
<td>7,331</td>
<td>$2,041,114</td>
</tr>
<tr>
<td>2018-19</td>
<td>24,360</td>
<td>27</td>
<td>249</td>
<td>6,054</td>
<td>$1,710,551</td>
</tr>
</tbody>
</table>

*First year address added to vouchers to address misuse

### 6.3 2019 Survey responses regarding bulk waste:

Previous bulk waste surveys asked residents to pick one option only for services. In an effort to get a better understanding of the community’s preference this survey presented 5 options and asked residents to rank them from most preferred (1st) to least preferred (5th) (see figure 9).

The key results were:

- 56% want to stay with the status quo as first choice (77% 1st plus 2nd choice compared to only 1.5% last choice). This may be due to some residents experiencing ‘change fatigue’ and just wanting time to settle into the new.
- 62% want to stick with vouchers in some form as 1st choice.
- 27% had one or two kerbside collections as their 1st choice.
- 10% preferred no service as their first choice (58% last choice)

Estimates of the cost impact of each of the options on the DWMC were provided to help respondents make an informed response. Given that the cheapest option (i.e. $90 saving per year) was the least preferred, cost did not have a significant impact on preferences.
82 comments were also made by respondents to qualify their preferences. Common comments (quoted verbatim with no spelling or grammar corrections) received on bulk waste collections included:

“Myself and many elderly people in my neighbourhood would benefit greatly if roadside pick up was offered”

“DO NOT OFFER bulky kerbside pickups please. Our town … will be a mess!”

“I very strongly believe we need a few curbside collections per year for bulky items. I think it would have the largest impact on illegal dumping because there are so many renters without vouchers and people without the means to transport things easily to the tip.”

6.3.1 Did age affect preference?

As a common comment was concern for the elderly, the first preference of each respondent was broken down by age group (see figure 10).

Retaining 4 vouchers was 1st preference for all age groups:

- 52% of 25-34s & 45-54s;
- 56% of 18-24s & 35-44s;
- 61% of +65s;
- 63% of 55-64s

Comments:

“I am satisfied with the current service and price (4 vouchers of 500kg value).”

“…. I’m happy to discard my own rubbish and think the current weights and voucher system is very reasonable …. 

Figure 9: Summary of 2019 bulk waste collection options and preferences.

Figure 10: 1st preference by age
6.3.2 Preferred voucher delivery method
A common comment concerning vouchers is as they are sent to owners with the rates notice many renters miss out. To address a follow up question regarding the delivery of vouchers via inclusion with rates notice to the owner or mailed to the property address for use by the occupier was included (see figure 11). The overall response to this question was:
- 56% preferred keeping the current method of mailing with rates notice to owners.
- Owners opinions were split on the method used for voucher delivery with 56% in favour of inclusion with rates and 44% in favour of delivery to householder (noting that survey responses had a bias towards owners this result can be seen as inconclusive).
- Age bracket does not appear to influence preference for either delivery option.

Comments:
“Previously as a renter I did not receive nor was aware tip vouchers were available to me”
“I feel the 4 tip vouchers should be split between the home owner & the tenant. I feel this is fair & reasonable to both parties & if not needed by the tenant they can give back to the landlord”

6.3.3 Options for those unable to use vouchers
Given that not all residents are able to use their vouchers (due to lack of transport, age or disability) a question was included to see if having a subsidised collection service would be acceptable and if so, what level of fee was considered reasonable.

As figure 12 shows, 58% thought this was acceptable (with no age group showing a greater preference that any other). The preferred fee was under $60 (figure 13).
6.3.4  Preferred kerbside collection service
Councils that still provide kerbside bulk waste collections have increasingly moved from scheduled (i.e. suburb by suburb at the same time) to on-call (i.e. residents book the date of collection that suits them) services.

In the event that a kerbside collection was the preferred community response, a follow-up question on how to provide this service was asked (figure 14). Responses showed:

- a preference for scheduled collection (62%) over on-call (37%). This may be as the scheduled service acts as a reminder (similar to bin night when you see your neighbours as a reminder to put your own out) and possibly to allow scavenging area by area.
- Neither owner/tenant status nor age bracket appear to influence preference for either collection option.

Comments:

“I do not like kerbside collections, you need to store rubbish until you have to spend hours carting it onto the nature strip. I’m happy to discard my own rubbish and think the current weights and voucher system is very reasonable. I think changing this will lead to a huge spike in illegal dumping”

“Need kerbside collections, some people do not have cars or a way to get large items to the tip. Please think of old people and disabled”

Figure 14: Bulk kerbside preferences
7. Including food in the garden organics bin

Council’s current contracts for collection and processing of the garden organics (GO) bin includes accepting food organics and garden organics (FOGO). This will happen when the processing facility is licenced to accept food organics or by March 2023 (at the latest). The inclusion of food in the organics bin will shift the servicing of this bin to weekly.

Research undertaken by NSW EPA (Household Waste and Recycling Research Report, 2015) noted that:

- Parents (not children as is often cited) were a key factor in waste and recycling behaviour, with habits formed growing up tending to be established despite changes in systems and services.
- Many residents have well established habits which they rely on when making decisions about whether to separate an item (such as for recycling) from the general waste stream. In many cases, resident’s perceptions of the guidelines for recycling are over-simplistic or out-of-date.
- Those who do not consistently use/have a separate in-home container/bin for recyclables may be less inclined to set materials aside for recycling. This can be applied to food separation and the majority of councils commencing this service provide kitchen bench top caddies for food waste separation inside the home. The NSW EPA offers grants to fund caddies when services have commenced.
- Residents are positive about using a caddy for food waste when they were shown it in groups. They are generally unwilling to pay for a caddy; expecting it to be provided by councils as part of the service.
- Residents are positive about the prospect of the introduction of FOGO collection services. However, there are several minor barriers to uptake, including perceptions of potential smell and infrequency of collection cycles. This will need to be considered and mitigation methods developed.
- Some respondents were concerned about placing food into a bin without first being placed in a bag (which is how most people dispose of food waste in the general garbage bin) meaning they would be faced with smells and forced to see rotting food whenever they emptied food into the collection bin. Some councils implementing this service provide compostable bags (including Lake Macquarie) for this reason. However feedback from our organics processor is that these bags can also contain non-accepted items (contamination) and the collection vehicle drivers cannot tell what is in bags to refuse collection.

To gauge the level of support required by residents to undertake this behaviour change, a question was asked (based on what other councils have done when implementing the same service) about what participants may need to make the process easier. An overview of the preferences is in figure 15. In summary:

- 53% had provision of a kitchen bench caddy as their first preference (80% 1st plus 2nd preference). However when looking at caddys by age group only 32-36% of those in the 3 groups over 45 had this as their 1st preference compared to 58% of the 18-24 group.
- 31% said nothing extra was needed as their first preference. This choice might be interpreted as meaning that residents do not want to separate food, or have no intention of doing so.
- There was low 1st preference for the provision of compostable bags/liners for caddies (both council and householder supplied 20%). When compared to those with a 1st preference for a kitchen bench caddy (figure 16), 47% had compostable bags as their 2nd or 3rd preference combined.
Comments (55 in total) included:

“I do not want to have to separate and keep food waste. People haven’t got time to be doing this on top of everything else”.

“Food waste services in our green bins need to be made available as soon as possible. Very high priority!”

“Regarding putting food waste in the green bins in the future - in winter when lawns do not grow as much this would be fine. But in summer when lawns need to be mowed more than once a week this is going to become difficult as we already need weekly pick up of the green bin in the summer months”.

“Don’t change the bin service. We have come from Lake Macquarie and the new system there is a mess. Maggots and flies in the area are at a level I have never experienced in the 30 years we lived there. LMCC didn’t listen to it rate payers and they are now paying the price... it’s disgusting”
8. Household waste collection post food being added to the organics bin.

The frequency of the waste bin collection when FOGO becomes a weekly collection has yet to be determined. Councils main objective is reducing waste to landfill to meet the State Governments target of 70% diversion by 2021-22. Research shows that there is a direct correlation between bin size and general waste generation i.e. the bigger the bin and more frequent the collection, the more waste that is generated. (NSW Local Government Waste & Resource Recovery Data Report, 2014-15)

A question was included in the survey asking respondents preferences for collection of the general waste bin after the FOGO service becomes weekly. First preferences to this question (figure 17) were split equally 3 ways. When first and second preference is combined, keeping the same size bin weekly is eliminated but the other two options remain evenly split.

Estimates of the cost impact for each of the options on the DWMC were provided to help respondents make an informed response (see table 5 for assumptions and comments). These estimates do not appear to have influenced responses significantly.

Comments:

“Whatever you do, don't put up the rates. Don't care if the council want to make changes, but any changes should be cost neutral”

“I've recently relocated here from Speers Point, they had changed their waste to green bin every week and red and yellow on alternative weeks….having red bin once fortnightly didn't work for our family. Was happy to be moving to a suburb that still did the weekly red bin…. “ (x4 at least)

“Once food waste is in organics bin then even a 140litre bin is large for a couple with no kids especially in over 50’s age group”

“Leave it as it is. If it is not broken don’t fix it”

“Please allow residents to trial any new methods of waste collection prior to introduction”
### Table 5: Assumptions in estimates for DWMC impact

<table>
<thead>
<tr>
<th>Option</th>
<th>Impact on DWMC*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting the same size (240 litre) bin fortnightly.</td>
<td>$0 impact as council is still collecting 2 bins per property per week. Increase in organics processing costs offset by decrease in landfill cost and NSW Waste Levy.</td>
<td>• EPA considers this the easiest for behavior change (in that residents still put out 2 bins every week) and servicing (room on street verges). • The average waste bin (figure 1) is 60% full and weighs 13kg. With 2kg of food per fortnight removed to the organics bin there is capacity for the average household to manage with waste being collected fortnightly. • Lake Macquarie Council recently implemented this system resulting in a large community protest. • Singleton Council has included this system in their current waste collection contract.</td>
</tr>
<tr>
<td>Collecting a smaller (140 litre) bin weekly.</td>
<td>-$30 impact$^a</td>
<td>• Armidale Council provide this service with their FOGO collection remaining fortnightly (not an option due to our contract for collection).</td>
</tr>
<tr>
<td>Keeping the same size (240 litre) bin weekly.</td>
<td>+$50 impact as no savings in waste service collection or NSW waste levy charges plus doubling of organics collection cost.</td>
<td>• This option does not support waste reduction targets. • Bathurst Council provide however waste diversion rates are low.</td>
</tr>
</tbody>
</table>

*All options assumed that there is no change in the cost of recycling service (as remains fortnightly collection) and organics bin. Weekly collection doubles collection costs plus slightly increases processing costs from additional quantities collected.

$^a$New 140 litre waste bins purchase and delivery being funded by a state government grant or as a one-off cost only funded from the waste reserve and savings in NSW Waste Levy.

### 8.1 Larger/Special needs Households

Waste services are provided based on the average household (census data shows that 58.8% of households in the LGA are 1-2 persons with an average household size of 2.57 persons per dwelling). Many comments received by Waste Services are from larger than average households and households with special (often short-term) needs.

To find out more from these households a question was included in the survey asking if they had special needs requiring extra waste disposal. Those that answered yes were asked two follow up questions:

- reason (Figure 18)
- Comments (63)

146 of respondents* indicated they had special needs requiring extra waste disposal with 63 comments summarised as:

- Children in nappies (7)
- Medical needs (11)
- Large household (8)
- Items suitable for bulk collection (19)
- No service (4)/commercial operation (2)

*Figure 18: Reasons for extra waste service
("Note: need to take into account that survey responses had a bias towards larger households than the LGA average.)

"With a household of 2 adults and 1 toddler (and a efficient recycler) the red lid bin is full weekly 95% of the time. Taking into account a second child on the way and more nappies which cannot be recycled it must remain at weekly. Looking at examples of hygiene concerns in Lake Macquarie from a fortnightly red lid bin collection it would be ludicrous if Cessnock Council took the same approach. It may also be beneficial with the amount of cardboard and plastic to leave the yellow lid bin at fortnightly however slightly increase the size. I know of many people that fill their yellow lid bin in this period and revert to the red lid."
9. Cessnock Waste Management Centre Services

Council receives some negative comments regarding the Waste Management Centre, as the Centre has now been operational for 2 years a question was included in the survey asking if the respondent had visited the Centre in the last 12 months. If they answered yes, they were shown a series of statements to rate their experience. 548 respondents indicated they had visited the centre and their overwhelmingly positive responses are summarised in figure 19:

- Over 90% were satisfied or very satisfied with the opening hours of the site and the clean appearance.
- Over 70% were satisfied or very satisfied with their customer service and had no problem finding where to drop items.
- Over 60% were satisfied or very satisfied with the sealed roads, undercover drop-off areas and ease of separating materials.
- 39% were dissatisfied or very dissatisfied with not being able to go to the tip face anymore (this might be attributed to not being able to scavenge anymore).

![Experience at Cessnock Waste Management Centre:](image)

**Figure 19: Satisfaction with CWMC**

**Comments:**

“good as you don’t run the risk of being bogged at tip face”

“Too complicated and had to do a couple of laps”

“I'm very impressed with your new waste management centre and its staff. Friendly and helpful. Makes a great difference”

“With my bad back I found it very hard doing all the sorting at the many stations”

“New system seems to work quite well because the employees were patient & helpful.”

“None of the staff can agree on what is/not recoverable”

“Recycled materials should be free to drop off”
9.1 Reuse Centre/Tip Shop

The aim of a Reuse Centre (Tip Shop as known in the community) is to reduce waste to landfill by encouraging the community to reuse materials. A Reuse Shop operated for more than 20 years at CWMC and was considered to be beneficial based on social and environmental outcomes and patronage of the site. While being recognised as a beneficial service to the community, the majority of Council’s in the Hunter Region have discontinued providing this service to their communities due to the low resource recovery rate and high cost of operation.

The redevelopment of the CWMC resulted in the need to relocate the existing Reuse Centre and construction of a new Reuse Centre was considered as part of the redevelopment. Tenders were called in 2016 for the Centre operations in the knowledge that the decision would require capital investment and potentially on-going operational cost.

During the evaluation process consideration was given to a number of criteria, including environmental and social outcomes, and value for money. The financial investment required for both the capital investment and on-going operation of the Reuse Centre was considered unsustainable and not value for money for the community. On this basis the recommendation adopted by Council was to decline all tenders for the operation of the Reuse Centre.

Community requests for a Reuse Shop are still received and so a question was included in the community survey to gauge the use of the facility when it was in operation. Those that answered yes to the question “did you ever use the Reuse Centre/Tip Shop” (see figure 20) were asked a follow up question regarding what they dropped off and/or purchased at the center (summarized in table 6).

Table 6: Summary of items exchanged at reuse shop

<table>
<thead>
<tr>
<th>What did you drop off? (406 responses)</th>
<th>What did you buy? (410 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Furniture (109)</td>
<td>• Building Materials (117)</td>
</tr>
<tr>
<td>• Bikes (76)</td>
<td>• Bric-a-brac / books (59)</td>
</tr>
<tr>
<td>• Gen. H/hold &amp; toys (54)</td>
<td>• Nothing (56)</td>
</tr>
<tr>
<td>• Building Materials (52)</td>
<td>• Heaps/ various / can’t remember (54)</td>
</tr>
<tr>
<td>• Metal/Batteries (47)</td>
<td>• Furniture (53)</td>
</tr>
<tr>
<td>• Electric &amp; white goods (45)</td>
<td>• Bikes/toys (53)</td>
</tr>
<tr>
<td>• Garden/ Outdoor (28)</td>
<td>• Garden/ Outdoor (50)</td>
</tr>
<tr>
<td>• Nothing (27)</td>
<td>• Parts (25)</td>
</tr>
<tr>
<td>• Bric-a-brac / books (12)</td>
<td>• Gen. H/hold(24)</td>
</tr>
<tr>
<td>• Organics (11)</td>
<td>• Tools (20)</td>
</tr>
<tr>
<td>• Waste (8)</td>
<td>• Electric &amp; white goods (8)</td>
</tr>
<tr>
<td></td>
<td>• Sporting (8)</td>
</tr>
<tr>
<td></td>
<td>• Plants (6)</td>
</tr>
<tr>
<td></td>
<td>• Caravan (2)</td>
</tr>
</tbody>
</table>

Comments on using the Reuse Centre:

I brought “Heaps I would always go have a look”

I brought “Nothing way too expensive for donated/ throw away crap”

“I probably dropped off more than I purchased there but would’ve purchased at least half of what I took to the centre”

I brought “Everything it was great it was a weekly visit to see what was there and always found something to buy.”

“I can’t remember but you couldn’t buy anything there it was far too expensive”

Figure 20: Reuse shop use
10. Illegal Dumping

Illegal dumping is a major waste management and cost issue for Local Government. In the Cessnock LGA, the problem is compounded by the geography of the area and ease of access to large tracts of bushland. Community consultation undertaken in June 2011, ninety percent (90%) of residents indicated that illegal dumping was an important issue and over ninety three percent (93%) wanted Council to do more to prevent illegal dumping incidents.

Illegal dumping and the detection of offenders is a complex task that utilises a variety of technologies and skills to detect and identify offenders. Often these activities are conducted by highly organised operators, in remote locations and under the cover of darkness. Council has participated in the Hunter Regional Illegal Dumping (RID) Squad since 2014 with costs being shared between the NSW EPA (50% until June 2021) and participating councils. Cessnock has one full-time RID Officer who investigates offences where waste has been illegally transported and disposed of outside of a licensed facility.

During 2019, 217 illegal dumping incidents were reported in the Cessnock LGA (see table 7). Regulatory actions taken included 13 Clean-up notices, 6 Official cautions and 28 penalty notices.

Table 7: Summary of 2019 Illegal Dumping Incidents and Outcomes.

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>No. Incidents</th>
<th>Total Weight (tonnes)</th>
<th>Regulatory Notices Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos</td>
<td>12</td>
<td>86.32</td>
<td>0</td>
</tr>
<tr>
<td>Commercial &amp; Industrial</td>
<td>12</td>
<td>0.84</td>
<td>1</td>
</tr>
<tr>
<td>Construction &amp; Demolition</td>
<td>14</td>
<td>7,653.58</td>
<td>19</td>
</tr>
<tr>
<td>Electronic Waste</td>
<td>1</td>
<td>0.03</td>
<td>0</td>
</tr>
<tr>
<td>Household Waste</td>
<td>124</td>
<td>2,748.59</td>
<td>19</td>
</tr>
<tr>
<td>Liquid Waste</td>
<td>1</td>
<td>0.02</td>
<td>0</td>
</tr>
<tr>
<td>Mulch &amp; Green waste</td>
<td>8</td>
<td>0.93</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>0.55</td>
<td>0</td>
</tr>
<tr>
<td>Scrap Metal</td>
<td>7</td>
<td>1.28</td>
<td>0</td>
</tr>
<tr>
<td>Soil &amp; Excavated Material</td>
<td>1</td>
<td>10.0</td>
<td>1</td>
</tr>
<tr>
<td>Tyres</td>
<td>17</td>
<td>5.3</td>
<td>1</td>
</tr>
<tr>
<td>Vehicles &amp; car Parts</td>
<td>14</td>
<td>17.85</td>
<td>3</td>
</tr>
</tbody>
</table>

To gauge current community concern regarding illegal dumping and the initiatives Council has undertaken a specific question was included in the May 2019 survey. Respondents were given 4 actions (see figure 21) and asked if they:

- Never done it.
- Had never done it but will now they are aware of the option (as reading the question can be a revelation of something they didn’t know they could do).
- Had done it in the last 12 months.
- Had done it more than 12 months ago.

This question also had an open comments option which received 274 responses that have been summarised in table 8.
Table 8: Community comments on illegal dumping

<table>
<thead>
<tr>
<th>Issue/Cause</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blaming recent changes/ fees at CWMC (112)</td>
<td>“There seems to be more whitegoods dumped illegally since the free metal drop off came into force.”</td>
</tr>
<tr>
<td></td>
<td>“I think the way information is presented at the tip contributes to illegal dumping because it gives a cost per tonne which is hundreds of dollars instead of giving an indication of how much a small trailer load is likely to cost. I have been to the tip thinking that it would cost me about $200 when the cost was less than $40.”</td>
</tr>
<tr>
<td>Fines should be higher/ greater awareness (25)</td>
<td>“Should be a jail term for dumpers.”</td>
</tr>
<tr>
<td>Blaming waste voucher changes (23)</td>
<td>“The cause of the dumping is the tip vouchers. If people are doing illegal dumping they are already loading all these materials into a vehicle but instead of taking them to the tip they are dumping it in the bush. Why would they bother doing this if they already have a tip voucher? The answer is they don't - either they used all their vouchers or they never received them (maybe renters?).”</td>
</tr>
<tr>
<td>Identifying dumping hot spots (17)</td>
<td>“Fencing has helped in Stanford Merthyr but is not completely effective”</td>
</tr>
<tr>
<td>Suggestions/ general comments</td>
<td>“Perhaps a small reward for people with visual evidence of illegal dumping taking place”</td>
</tr>
<tr>
<td></td>
<td>“It is a disgrace that needs more action. I'm willing to pay more rates to help address. “</td>
</tr>
<tr>
<td></td>
<td>“Maybe that $500k that was put towards this RID squad could be better spent on fixing the actual problem, i.e. paying for kerbside collection.”</td>
</tr>
<tr>
<td></td>
<td>“Has council ever considered assisting charities who see people in hardship with free tip vouchers? Food and energy vouchers have been supplied by charities for years and that seems to work.”</td>
</tr>
</tbody>
</table>
11. Waste Minimisation and Improving Recycling

The final question in the survey concerned household behaviour towards recycling and waste minimisation (results are summarised in figure 22). During the last 10 years there have been extra resource recovery services made available to residents other than just through their kerbside recycling bin and at the CWMC. These include:

- Commencement of the NSW 10 cent container deposit scheme in December 2017 with several reverse vending machines available across the LGA. In the first 12 months of this system commencing the total quantity of material collected in the kerbside recycling bins decreased by 647 tonnes. Operators of the reverse vending machines have reported that Cessnock is one of the highest users of the scheme in the state. Council has also received calls from residents reporting their recycling bins being scavenged on bin night by people looking for 10 cent containers and/or creating litter.

- Collection bins for soft plastics (i.e. bags) at supermarkets. No data is available on the quantities of these collected at an LGA level.

- Community recycling centres at Libraries for household batteries, mobile phones, lights and printer cartridges. Stations require monthly emptying with library and customer service staff reporting resident’s strong support of service.

- Half price compost bins and worm farms with training and information sessions (funded through grants) were available to households from 2013 until 2017 (when kerbside collection of garden organics commenced). 384 worm farms and 280 compost bins were provided through this program. In addition, 3 hour community workshops attracted 187 residents and 17 local schools had student workshops run by Environmenters (a service of Keep Australia Beautiful NSW).

![Actions to Further Minimise Waste and Increase Recycling](image)

**Figure 22: Additional recycling and waste minimisation actions**

This question also had an open comments option which received 130 responses.

**Comments:**

“I cut up and sew old clothes together and make blankets, quilt covers etc to reuse anything that cannot be donated, I have a couple of chickens as well as my worm farm that recycle old foods”.

“Menu planning (waste minimisation), reusing glass jars/bottles for pantry storage”.

“Take own coffee cup, straws and cutlery everywhere I go and am happy to pay a takeaway container charge in businesses or likewise be rewarded with a discount for byo containers, perhaps an incentive to business owners would encourage this kind of action?”
12. **Continual Consultation**

In concluding the survey a question was asked if respondents would be willing to participate in a small focus group (of 1-2 hours) to provide more information on the topics covered in the survey. 205 (27%) respondents answered yes and provided contact details to enable this continual consultation.

The final survey question advised that there are a variety of events throughout the year (including free drop-offs, workshops and giveaways) run by the Environment and Waste team. 358 respondents provided an email address to receive direct notice of these events via an email newsletter.