

## **WASTE AND RECYCLING OPTIONS**

**Cabinet Member(s):** Cllr Colin Slade, Cabinet Member for the Environment and Climate Change  
**Responsible Officer:** Darren Beer Operations Manager Street Scene & Open Spaces

**Reason for Report:** A decision was made at the Environment PDG November 2020 to conduct a trial to measure the effect of residual waste being collected at three weekly intervals. The report presents the findings from the trial which was carried out between July and October 2021.

### **RECOMMENDATIONS:**

- 1. Consider the options in the report**
- 2. Recommend to cabinet the preferred option – Option 2**

**Financial Implications:** Continuing with the current regime will ultimately incur additional costs to the council; the existing fleet is nearing capacity limit to accommodate present property numbers. Additional housing developments will mean that ultimately funding an extra vehicle and crew will become necessary.

A transition to collecting non-recyclable waste at three weekly intervals (Option 2) would enable the current property numbers to be serviced with a reduction of one vehicle. Modelling carried out by WYG Consultancy estimated this cost saving to be £143K per annum. For this option recycling was predicted to increase by 17.4%, however this increase occurred during the lockdown period March 2020 to August 2020 (prior to baseline measurement recording). The additional material has been accommodated within the current fleet.

Option 2 and 3 will incur a one off cost of circa £650K to provide and deliver wheeled bins. WYG predict that Options 3 and 4 (weekly recycling collections) will incur an annual cost of circa £950K.

**Budget and Policy Framework:** There will be budget implications with regards to any potential change in service and these are included in this report. Waste and recycling remains a statutory service provided to the residents of the district.

**Legal Implications:** Under Section 46 of the Environmental Protection Act Waste Collection Authorities may by means of notice specify how householders present their waste for collection.

**Risk Assessment:** The waste and recycling performance indicators are provided separately in the regular Performance and Risk Reports. There are risks if the Council does not take sufficient actions to enable it to meet its Climate Emergency declaration ambitions. Secondly that it does not meet the targets set by Government over the coming years and thirdly not meeting the future housing developments.

**Equality Impact Assessment:** The service continued to provide assisted collections according to the current policy and supplied customers with alternative containment if they were unable to manage or accommodate a wheeled bin. Provision for large families and other specific needs were addressed.

**Relationship to Corporate Plan:** This report identifies with the 'Environment' priority area of the Corporate Plan 2020-2024 *'increase recycling rates and reduce the amount of residual waste generated'*. Supporting and enabling customers to recycle and reduce residual waste contributes to Mid Devon District Councils' commitment to the Devon Climate Emergency.

**Impact on Climate Change:** The impact of carbon emissions will be detailed in the report. All Customers taking part in the trial were supported, encouraged and equipped to reduce carbon footprint in relation to waste and recycling, enabling a contribution towards the MDDC commitment to be carbon neutral by 2030.

## 1.0 Executive Summary

1.1 Our Waste and Recycling Service is our most visible and front line, statutory service in the Council. It is responsible for providing best practice front line services including refuse collections, recycling and litter collection for customers and has a wider commitment to support our community and environment objectives.

1.2 The latter include reducing our rates of refuse collection and increasing our recycling so we can help reduce our carbon footprint. We are also committed to helping the public take ownership of disposing of litter in better and innovative ways through education, campaigns and soft enforcement.

1.3 There are several critical elements to our Waste and Recycling Strategy which include but are not limited to:

- Delivery of best practice services to our customers; the trial of three weekly residual waste collections in both urban and rural areas of the district
- A Litter Strategy to help raise awareness of the public to dispose of litter (and take ownership of its disposal) in better ways which support our targets
- To use soft enforcement to educate and reinforce key practices and changes to the public with more effective hard enforcement used to deal with serious offences and serial offenders. The latter to be developed through a corporate approach
- To develop and upskill an effective workforce which can sustain the delivery of vital services to the public at a time of national shortage in key workers
- To develop and evolve our fleet and use of vehicles so unnecessary travel is minimised and we purchase electric vehicles in the future.

## 1.4 Context

- 1.4.1 As part of our commitment to help deliver these changes we have piloted the implementation of 3 weekly waste collections over a three month period in both a rural and urban area to assess the impact of such a change being introduced in the district.
- 1.4.2 Between early July and mid-October trials of three weekly residual waste collections were piloted in Holcombe Rogus and Westleigh as well as the area in and around Canal Hill in Tiverton. During this period the team regularly visited the areas being piloted to offer advice and education in person where required.
- 1.4.3 At the end of the trial all residents were surveyed to collect feedback and to assess attitudes towards the trial of three weekly waste collections. In this paper we have detailed both the results achieved in the urban and rural areas of going from two to three weekly waste collections and the feedback from the public who have been involved in these pilots. There has also been some good examples of education and soft enforcement to draw upon which will be shared.
- 1.4.4 We have then put forward five options for consideration (with a clear recommendation for approval) together with next steps regarding how we best take forwards the results of the trial for the benefit of the District.

## 2.0 Introduction/Background

- 2.1 The November 2020 Environment PDG gave authorisation for a Recycling and Waste trial covering approximately 1000 properties to be carried out in Mid Devon. A Project Board was established comprising of responsible representatives from contributing services (Customer Services, Operations, Communications, Finance, Climate & Sustainability and ICT). The board was set up to plan, provide resources and brief their respective teams.
- 2.2 The trial was divided into four sections accommodating both rural and urban settings.

Table 1: Trial Locations

Setting	Location	Number of Properties	Containment
Urban	Canal Hill Area	581	Customers receptacle/sacks
Urban	Wilcombe Area	530	180L Wheeled bin (provided) <b>-Limited containment</b>
Rural	Holcombe Rogus	151	Customers receptacle/sacks
Rural	Westleigh	151	180L Wheeled bin (provided) <b>-Limited Containment</b>

Sample areas were identified to provide appropriate representation of the district. The chosen areas close proximity to the Willand Depot enabled efficient monitoring and operational control. The utilisation of an existing round ensured less disruption to business as usual with Wednesday collections allowing time for follow up.

2.3 Baseline weight recording was conducted during May and June 2021 with customers unaware. Results presented a comparison against trial weights and demonstrated the metric effect of the trial whilst providing insights into people's recycling and waste habits.

2.3.1 Baseline results suggested the greatest impact would occur in higher density housing groups. These groups are likely to need the most encouragement and education through visits.

2.3.2 Results demonstrated that high density housing groups put out fewer food caddies, which suggested food is being deposited with residual waste and revealed higher tonnages.

2.4 Letters were hand delivered to all four areas of the trial detailing the following:

- reasons for the trial
- a schedule of collections
- an explanation of how waste should be presented at the kerbside (capacity limit in wheeled bin area)
- wheel bin delivery details (if applicable)
- contact details for any questions or requests for support
- the opportunity to feedback to MDDC via an online survey or by contacting Customer Services if no internet access was available

2.4.1 A dedicated web page was created to provide guidance and information to customers including a 'FAQ' section as well as topical social media posts. The collection day lookup facility on the Mid Devon District Council web site was updated to include the change in schedule for those customers chosen to take part in the trial.

2.4.2 Customers were assured assisted collections, collections for garden waste subscription holders and clinical waste customers would continue as normal.

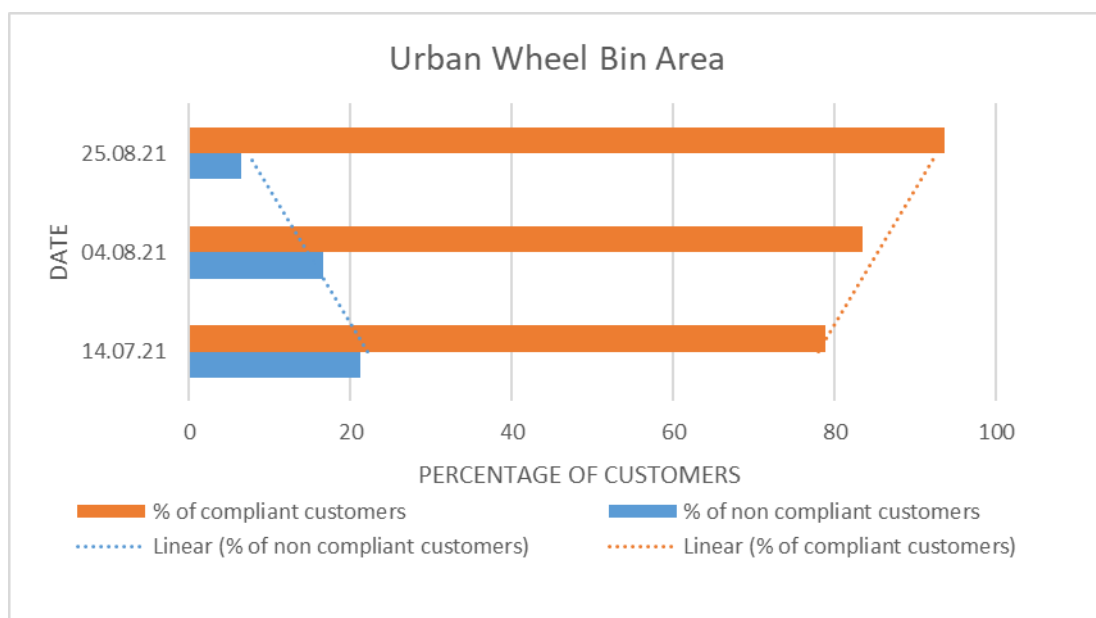
2.4.3 Customers in the wheeled bin sections of the trial received a delivery after the final collection of the pre-trial schedule had taken place. Those customers who were unable to accommodate or physically deal with a wheeled bin were provided with seagull proof sacks.

### 3.0 **The Trial**

3.1 Communications and engagement were a high priority throughout the trial but in the initial stages it was the central focus especially in the areas where bin capacity was limited to 180L. In the urban wheel bin area 21% of customers had presented additional waste for collection on the first day of the trial. The Project Board had committed to not collecting side waste (therefore this additional waste was left at the kerbside).

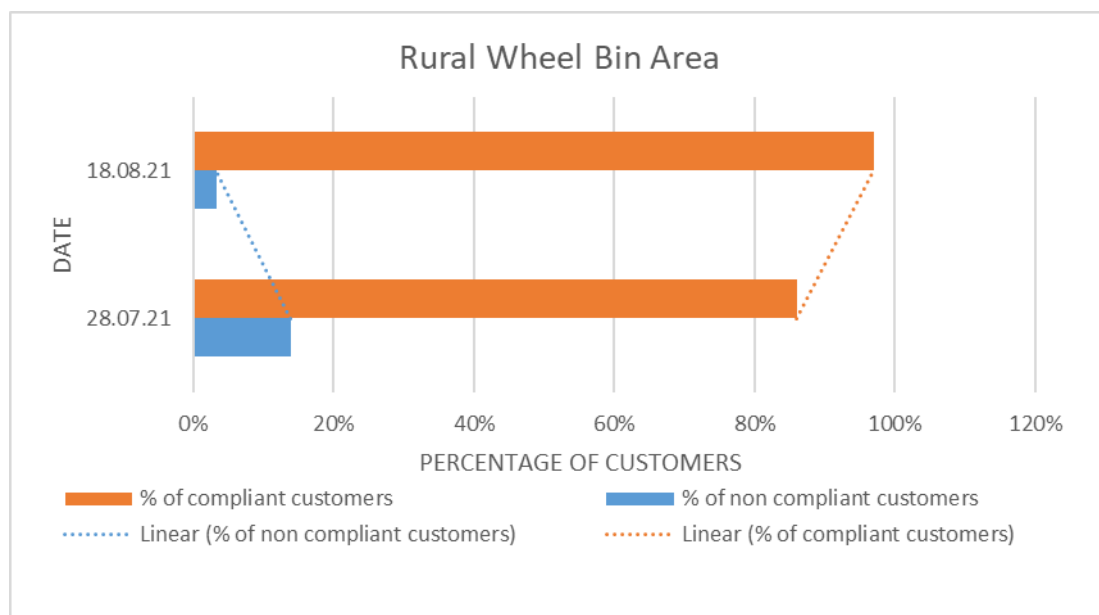
- 3.1.1 Officers were present in the trial areas prior to the arrival of the refuse vehicle on collection day and recorded all properties with a side waste issue. These customers received a letter thanking them for their participation and reminding them of the limited capacity element; they were invited to contact Customer Services to request a second wheel bin if they felt they did not have sufficient capacity due to special circumstances like a large family or children using nappies.
- 3.1.2 Upon request Customer Services arranged for Waste & Recycling Officers to perform on site 'Waste Audits'. This identified materials that were present in residual waste that should have been recycled. These visits proved popular with customers and provided an opportunity to feedback and discuss any difficulties they were having. If it was agreed that a second wheeled bin was necessary the 'side waste' was removed when the bin was delivered.
- 3.1.3 The process continued on each residual waste collection day in both urban and rural settings until a satisfactory rate of compliance was achieved and sustained.
- 3.1.4 Customers in the areas where there was no limited capacity also received advice and visits and were identified as putting out excessive amounts of residual waste or by not presenting recycling or food on collection day. In the main, these areas have proven to be high performing with committed recyclers.
- 3.1.5 The urban wheeled bin area chart illustrates how emphasis on communications and engagement reduced non-compliance to an acceptable level in the urban wheeled bin area. Initially non-compliance was 21% and fell to an acceptable level of 6% after the third collection.

Fig 1: Urban Wheel Bin Area



The rural wheel bin area chart illustrates reduction in non-compliance in the rural wheeled bin area. Initially non-compliance was 14% and fell to an acceptable level of 3% after the second collection.

Fig 2: Rural Wheel Bin Area



3.2 A total of 57 second bins were delivered to customers; 7% of all wheeled bin customers on the trial. Emphasis was communicated to the public on increasing recycling and removing materials from the residual waste stream. It was encouraging to receive requests for 50 recycling boxes which were ordered by 23 customers with 5 customers requesting additional food caddies. This indicated that customers were proactive in ensuring they had the containers available to fully engage in the trial.

3.3 The amount of litter and waste strewn at the kerbside on collection day has been a source of complaints. On occasions gulls have ripped open waste sacks, scattering litter. Waste sacks can impede pedestrian access especially for wheel chair users and parents with push chairs. A considerable improvement on these issues has been witnessed during the trial especially in communal areas where customers are using wheeled bins to contain waste.

Collection point – wheeled bin area



Collection point – Where customers are using their own receptacle/sacks

Temple Crescent Tiverton



Ford Road Tiverton



A considerable improvement has been seen on collection day in the areas where customers are provided with containment

Holcombe Rogus- Where customers are using their own receptacle/sacks



Westleigh- wheeled bin containment



## 4.0 Communications

4.1 Communication strategy is key to successfully implementing a modification to waste collection. During the trial customers rapidly adapted with an acceptable level of compliance being achieved within three collection cycles in the urban area and two in the rural area.

4.1.1 Face to face communication proved to be the most effective method of engaging with customers. Dedicated officers who were approachable to the public provided advice and guidance. This gave customers the opportunity to discuss specific requirements.

4.1.2 Most encounters were 'by appointment' however some were ad hoc. Officers were approached on the job and were a visible presence in the community. Encounters with the public were reported to be positive experiences.

- 4.1.3 Internet support and dedicated social media accounts were available to customers. Details were communicated in the pre-trial and follow up letters.
- 4.2 Acting upon customer feedback is critical to achieving engagement from the community, particularly with any change to waste collections. Feedback invitations have been included in all correspondence. Feedback media included an on line survey, post or a doorstep 'door knocking' exercise carried out by the Recycling Officer. Findings from the survey are detailed below. The full survey results can be found in Appendix A – Full Survey Results.
- 4.3 From the survey the following key responses were received:-
- 4.3.1 71% of those surveyed thought that reducing the carbon footprint was most important to them when asked about the benefits of collecting non-recyclable waste every three weeks.
- 4.3.2 When asked how satisfied they were in having their non-recyclable waste collected every three weeks, households responded as follows; 56% were either satisfied or very satisfied, 21% were neither satisfied nor dissatisfied and 23% were dissatisfied or very dissatisfied.
- 4.3.3 When asked whether the householder thought they had reduced the amount of non-recyclable waste put out, 75% said they had not.
- 4.3.4 When asked whether the householder thought they had recycled more, 68% thought they had not. This does not correspond with the results of the trial suggesting the question was misinterpreted. Those surveyed may have thought that recycling did not include food waste.
- 4.3.5 When asked which statement best reflected their view of the trial; 40% were happy with three weekly collections, 30% were not affected while the remaining 30% struggled with it.
- 4.3.6 When asked whether there was an improvement in the way that non-recyclable waste was presented on collection day, those issued with bins saw a significant improvement in the tidiness of the area outside their homes where waste was presented. Nearly all respondents using their own receptacles or sacks saw no improvement.
- 4.3.7 216 surveys were completed, which equated to 16% of all households in the trial.



## 5.0 Trial Results

Table 2: Percentage Change

Setting	Option	Food Tonnage	Recycling Tonnage	Residual Tonnage
Urban Sack	1	+29%	- 1%	-24%
Urban Bin	2	+25%	+1%	-44%
Rural Sack	1	+7%	+5%	-6%
Rural Bin	2	+15%	+9%	-30%

These results are also shown in the graphs in Appendix C - Graphs

### 5.1 Residual Waste

5.1.1 Promoting recycling, limiting volume of residual waste to 180L per household and reducing the frequency of collections has enabled a reduction in tonnage in the urban setting. To a lesser extent allowing customers to use their own receptacle or sacks with no limit has also resulted in a decline.

5.1.2 Reduction seen in the area where customers used their own receptacle or sacks was 24% compared to a reduction of 44% in the area where capacity was limited. This significant reduction indicates that customers have used the waste collections services provided by MDDC; in addition have practiced waste prevention (top priority in the waste hierarchy) as well as local recycling centres.

5.1.3 Results from the rural setting are similar to urban but to a lesser extent. The reduction seen where customers used their own receptacle or sacks reduced residual waste output by 6% and those with limited capacity by 30%.

### 5.2 Recycling

5.2.1 The WYG report produced for Mid Devon District Council predicted an increase in recycling of 17.3%; the report was compiled pre pandemic. During the lockdown period when baseline measurements were taken recycling increased by 17% compared to the same period in the previous year (non-lockdown). This suggests that if baseline measurements were taken outside of lockdown a similar % increase would have occurred in line with the WYG report prediction.

5.2.2 During the trial there was a very slight decline in recycling materials put out in the urban area where customers are using their own receptacle or sacks (-1%). Baseline results indicated that these customers were high performers pre-trial. An increase of 1% occurred in the area where customers are using wheel bins.

5.2.3 A greater uptake in recycling occurred in the rural setting; customers using their own sack or receptacle produced 5% more recycling whilst those with wheeled bin containment produced an additional 9%.

### 5.3 Food Waste

5.3.1 The increase in food waste placed in food caddies in all settings was substantial. Baseline weight analysis indicates that food has been diverted from residual waste and is the main contributor to the impressive decline in residual waste presented during the trial. Customers in the urban setting using their own receptacle or sacks increased food waste placed in food caddies by 29% and those with wheeled bins by 25%.

5.3.2 Customers in the rural setting using their own receptacle or sacks increased food waste placed in caddies by 7% and those with wheeled bins by 15%.

### 5.4 Applying Trial Results District Wide

Table 3: District Wide Estimation

	<b>Recycling Rate</b>	Residual Household Waste per HH (tonnes)	Household Residual % Change	Waste Arisings % Change	Food Waste % Change	Household Recycling % Change
Current	<b>54%</b>					
Sacks	<b>61%</b>	301.94	-20%	-7%	+24%	+4%
Wheeled Bins	<b>68%</b>	222.82	-41%	-16%	+23%	+5%

### 6.0 Carbon Impact

6.1 Eunomia were commissioned to calculate the carbon impact from the three weekly waste trial and the full results can be found in Appendix B - Mid Devon District Council: Three-Weekly Residual Waste Collections Carbon Emissions Analysis.

6.2 Customers are given the opportunity to contribute to sustainability. A reduction of 0.85 tonnes of CO<sub>2</sub>eq result was achieved each week in the wheeled bin section of the urban area, 0.11 tonnes of CO<sub>2</sub>eq in the rural wheeled bin area. This is a substantial contribution to the Net Zero commitment if rolled out district wide. The provision of waste services to new housing developments under the current regime will increase carbon emissions considerably; this would need to be monitored and offset.

## 7.0 Options

Option	Residual	Garden	Food	Recycling	Residual Waste Containment
Option 1	3 Weekly	Chargeable -2 Weekly	Weekly	2 Weekly	Customers receptacle/sacks
Option 2	3 Weekly	Chargeable -2 Weekly	Weekly	2 Weekly	180L Wheeled Bin (provided)Limited Capacity
Option 3	3 Weekly	Chargeable -2 Weekly	Weekly	Weekly	180L Wheeled Bin (provided)Limited Capacity
Option 4	3 weekly	Chargeable -2 Weekly	Weekly	Weekly	Customers receptacle/sacks
Option 5	2 Weekly	Chargeable -2 Weekly	Weekly	2 Weekly	Customers receptacle/sacks

## 8.0 Conclusion and recommendations

- 8.1 The trial indicates that using limited capacity containment for residual waste coupled with an effective communication strategy yields the greatest benefit in reducing residual waste.
- 8.2 Food waste being placed in the caddy instead of residual waste has contributed to a decline in residual tonnage. Food waste increased dramatically during the trial. A Review of Waste Services undertaken by WYG on behalf of MDDC suggested that food waste would increase by 21% based on results from Authorities already undertaking a three weekly residual waste service. The trial at Mid Devon confirmed this with a food waste average increase of 19% over all settings.
- 8.3 A decline in residual waste was most significant in the urban wheeled bin containment area (-44%). Side waste not being collected most likely diverted some waste to recycling centres or encouraged waste prevention. This area contained an elevated percentage of high density housing (terraced); baseline results show increased residual tonnage in this category. Not all urban areas are typical of the setting.
- 8.4 Waste presented at the kerbside in wheeled bins reduces the amount of litter on collection day. Streets are more accessible to pedestrians. Cleanliness of the neighbourhood improves. Customer survey results confirm this.
- 8.5 Option 2 brings MDDC in line with the 'super aligned' option documented in the 'Devon and Torbay Waste Strategy'. This will create opportunities for joint working in the future and be a potential source of savings. The focus of the 'Devon and Torbay Waste Strategy' is prevention and reuse. Customers taking part in the trial with limited capacity for residual waste have discovered ways of reducing their waste, evidenced by the trial results.

8.6 In total the trial saved MDDC 1.3 tonnes of CO<sub>2</sub>eq per week. This is the equivalent of driving a standard car to Spain and back 3 times a week.

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**Circulation of the Report:** Cllr Colin Slade, Cabinet, Leadership Team

**List of Background Papers:**